

**EXAMINATION OF WOMEN REPRODUCTIVE HEALTH WITHIN
SOCIO-ECONOMIC AND CULTURAL FRAMEWORK:
A STUDY OF TWO URBAN SETTLEMENTS OF N.W.F.P.**

By

**Mohammad Mumtaz Khan
2000-ag-1404**

Thesis submitted in partial fulfillment of requirements for the degree of

**DOCTOR OF PHILOSOPHY
IN
RURAL SOCIOLOGY**

**DEPARTMENT OF RURAL SOCIOLOGY
FACULTY OF AGRICULTURE ECONOMICS
AND RURAL SOCIOLOGY
UNIVERSITY OF AGRICULTURE,
FAISALABAD (PAKISTAN).
2004**

To

The controller of Examinations,
University of Agriculture,
Faisalabad.

We, the members of the supervisory committee find the thesis submitted by Mr. Muhammad Mumtaz Khan satisfactory and recommend that it be processed for evaluation by External Examiner(s) for the award of the degree.

CHAIRMAN:

PROF DR. MUHAMMAD IQBAL ZAFAR

MEMBERS:

DR. TAVNIR ALI

MEMBER :

DR.ASHFAQ AHMAD MANN

To

The Controller of Examination
University of Agriculture,
Faisalabad.

Subject: Submission of PhD Thesis

We, the supervisory committee, certify that the contents and form of the Thesis submitted by **Mr. Mohammad Mumtaz Khan**, Regd. No. 2000-ag-1404 have been found satisfactory and recommend that it be processed for evaluation by external examiners for the award of degree.

CHAIRMAN:

DR. ASHFAQ AHMAD MANN

MEMBER:

PROF DR. MUHAMMAD IQBAL
ZAFAR

MEMBER:

DR. TANVIR ALI

ABSTRACT

Women reproductive health problems are found all over the world, particularly in developing countries. Individual is the prisoner of society. Culture determines way of life and interaction process in a group, which is known through cultural norms and values. With the passage of time; the evolutionary process in social system has been bringing about change in values regarding women and their rights. As a result a lot of consideration is seen for the protection of women rights. In this connection woman reproductive health has been considered in a male dominant society as most serious issue. The developing countries have also been considering and paying attention to human reproductive rights within socio economic and cultural frame work.

The study focuses on the facilities in Pakistani society. This research study conducted to asses the women reproductive health problem in N.W.F.P. (Pakistan). The overall objectives of the study was to diagnose the effects and changes in behavior pattern of society concerning, demographic, social, cultural, religious and economic aspects of women living in different classes in urban area of, Peshawar and Kohat. The study focuses on social, economic and cultural consideration for the benefit of women's reproductive health. The study universe consists of urban Peshawar and Kohat, which is the true representative of two geographical regions; separated by a range of mountains of Tribal Belt of Dara Adam Khel of the province of N.W.F.P. A sample of 720 women respondent of three strata, i.e. lower, middle and upper class women with at least one living child or life birth were interviewed and sampling procedure was taken through stratified random sampling- both the quantitative (second resource as well as field survey) and qualitative (focus group's interviews) studies were conducted with the aim to produce valid results.

The uni-variate, bi-variate and multivariate of quantitative and qualitative data provides evidences that the study provide evidences that educated spouse lead a healthy and prosperous life in community, leading towards significant reduction in child and maternal mortality in both districts of study in NWFP. The single most important variable in the discussion will be that education of females has to be made an area of priority by the policy makers, and then the society could get rid of many reproductive health problems.

The most remarkable and significant aspect is keeping control at family size with use of contraception and that is possible with health education.

The evidence from the study supports the idea that development in family income and better occupation is the pre-condition for reproductive health. The data analysis clearly demonstrates that women's education and cultural tradition in terms of women's restricted participation in family and non-family matters, religiosity, family values, obligations and husband domination exert an important influence on fertility and contraceptive behavior. It also emerged from the study findings that culture maintains its influence in explaining reproductive behavior and small family size independent of economic development.

The type of family and socio economics status with cultural background in women with reproductive age in community and their impact on reproductive health as well as family size and use or not use of contraceptive is important social and cultural factors of any society and the response of respondent about use or non use of contraceptive is also important. The data in study showed that preferences of male child over female child, i.e. norms of sex preferences have been changing with the literacy and education in females. The changing status of women has dominant affect on the health of women. The changing norms of family setup were evident in the study. The study showed the high tendency regarding norms of communication between spouses. The important aspect and issue in the study was the improvement in status and participation by female in decision making in home affairs; but the male domination in lower class may lead towards many negative aspects of complete participation of women in participation in decision making process. These descriptions are shown in different tables in the chapter. Specially, those respondents, who belong to joint and extended families, reflected that respondents who belong to nuclear had the more chances of many/low children as compared to joint family system.

ACKNOWLEDGEMENTS

All glory and praise be Allah, the most Merciful and Mighty- For whom is my beginning and end, who is benefactor and merciful, my creator, my shaper out of naught, my fashioner omniscient of what I need, cognizant of my deeds, the one and only, who is nearer to me than my Jugular vein, to whom are ascribed the traits of absolute perfection and beauty. It is through His boundless and infinite mercy that the task has been completed well in time, Blessing and Peace be Upon Him the one whom Allah has sent as a mercy to the world. Hazrat Muhammad (P.B.U.H.), the illuminating torch and resource of humanity from going astray.

Many valuable contributions have been made by learned scholars in the accomplishment of this gigantic task that would have been a mystery without their scholarly attempts.

I owe a heavy debt of gratitude to Professor Dr. Mohammad Asghar Cheema, the Dean Faculty of Agriculture Economics and Rural Sociology, University of Agriculture Faisalabad and Prof Dr. Muhammad Iqbal Zafar, the Chairman Department of Rural Sociology for their patience, love support and understanding during the course of this research.

I wish to express my sincere appreciations to all members of the supervisory committee for their kind supervisions, sympathetic attitude, wise counseling. Constructive criticism, valuable suggestion and inspiring guidance throughout the course of this research endeavor.

I am especially, indebted to Prof Dr. Muhammad Iqbal Zafar, Chairman, supervisory committee under whose supervision this research work has been accomplished. His comprehension of the sociological theory and statistical analysis, grip on the analytical techniques understanding of descriptive and inferential statistics and aptitude for objective research has been of great value. I am thankful for holding repeated discussion on the complicated matters and encouraging me with great patience and devotion.

I wish too gratefully and acknowledge help extended by Dr. Tanvir Ali, the Director advance studies and associate professor in Agriculture Extension, University of Agriculture Faisalabad for his valuable guidance and also member of the supervisory

committee, for making valuable suggestions, particularly in qualitative data collection, its analysis and interpretation of focus group interviews.

My thanks go to Dr Ashfaq Ahmad Mann Associate professor and Dr. Tanveer Ali the Director Advance Studies U.A.F. in the department of Rural Sociology U-A.F for his valuable guidance in writing up of research report. This work would have never been completed without his guidance, I am also grateful to the Director General, Population Welfare & Urban Improvement, Government of N.W.F.P. and official of Population Welfare. Peshawar and Kohat. It also owe thank to my colleagues Prof Dr Amir khan ,the chairman department of Urban and regional planning in the university of Peshawar; and in the development sector for their comments and assistance.

I am especially thankful to officials Population Welfare authorities that shared their views in the focus group's interviews. I also thank all my anonymous community respondents for providing the valuable qualitative information during focus group's discussions and then kind cooperation for the collection of quantitative data through the field survey. I must pay thanks to the interviewers for their sincere efforts in data collection.

Lastly, I would thank my wife and children for their patience, encouragement and inspiration, which led to complete this study successfully.

GLOSSARY OF TERMS AND ABBREVIATIONS

AIDS	Acquired immune deficiency syndrome
ACS	Acute Coronary Syndrome
AIDS	Immune deficiency syndrome
BH.U	Basic health unit
CHD	Coronary Heart Disease
CED	Census enumeration district
CVD	Cardio vascular disease
CEU	Census Enumeration Unit
CDR	Crude Death Rate
Dara Adam Khel	Local Tribal Area
EA	Enumeration area
EC	Education on contraception
EOC	Essential Obstetric Care
FATA	Federally Administered Tribal Area
HIV	Human immunodeficiency virus
HRP	Human Resource Programme
IUD	Intra Utrine Device
ICPD	International Conference on Population and Development
IMR	Infant Mortality Rate
ICPD	International Conference on population development
LHV	Lady Health Visitor
LPA	Local Planning Area
LGA	Local Government Area
MCH	Mother and child health
MMR	Maternal Mortality Ratio
MI	Maternal Index
Mirat	Issue less
MI	Mental Illness
NIPS	Nation Institute of population studies
N.W.F.P.	North West Frontier province

NGO	Non Government Organization
OPR	Optimum Population Rate
PHDS	Population health and demographic survey
R.H	Reproductive health
RHSC	Reproductive health center
STD	Sexually transmitted disease
S T I	Sexually transmitted infection
T.V.	Television
TBA	Traditional Birth Attendant
TFR	Total Fertility Rate
UNICEF	United Nation fund for children
UN	United Nations
UNFP	United Nations Population Funds
UNDP	United Nations Development Programme
WHO	World health organization

TABLE OF CONTENTS

Abstract

Acknowledgements

Glossary of Terms and Abbreviations

List of Tables

List of Figures and Maps

1.1	Introduction	1
1.2	International perspective:	2
1.3	Regional scenarios regarding demographic comparison.	4
1.4	Reproductive Health in National perspective:	6
1.5	Background:	7
1.6	National Programs on Reproductive Health:	8
1.7	Research Program on reproductive health:	8
1.8	Health facilities:	8
1.9	Population policies effecting family structure:	10
1.10	Demographic Indicators for Pakistan:	16
1.11.	Rationale of the study:	24
1.12	Conceptual framework of the study:	25
1.13	Objectives of the study	28
1.14	Summary	29
REVIEW OF LITERATURE		
2.1	Introduction:	30
2.2	Ages of Respondents:	31
2.3	Educational attainment of woman:	33
2.4	Occupation and Economic Status:	35
2.5	Family Income and residence:	36
2.6	Culture and reproductive health:	37
2.7	Infant mortality and reproductive health:	40
2.8	Status of women in role relationship and reproductive health:	41
2.9	Woman participation in decision-making:	41
2.10	Gender Role and Relationship:	42
2.11	Contraceptive use behavior pattern of spouse:	43
2.12	Communication on family matters and reproductive health:	45
2.13	Women participation and reproductive health:	47
2.14	Religiosity, conservatism and reproductive health	49
2.15	Normative and Physical cost of contraception	51
2.16.	Attitude of health providers and utilization health facilities:	54
2.17.	Islamic perspective of reproductive health:	55-58

RESEARCH METHODOLOGY

3.1	Introduction:	59
3.2	Research Design:	59
3.3	Profiles of the study areas:	59
3.4	Organization of the fieldwork:	60
3.5	Field Management & Data Collection	61
3.6	Some aspects for improving the quality of data:	62
3.7	Threats to Validity	65
3.8	Sampling and sample size:	66
3.9	Sample size:	66
3.10	Selection of Respondents	67
3.11	Phases of Fieldwork:	67
3.12	Constraints	68-74

RESULTS AND DISCUSSIONS OF FOCUS GROUPS INTERVIEW

4.1	Introduction:	75
4.2	What are focus groups?	75
4.2.1	Composition of Focus Groups?	75
4.2.2	Focus group and latent information	76
4.3	What is focus group interview?	76
4.4	Organization of focus group	77
4.4.1	Preparatory arrangements	77
4.4.2	Conduct of the FGD	78
4.4.3	Reporting of the FGD	78
4.5	Focus group discussion	79
4.5.1	Selection of participants for focus group	79
4.5.2	Selection of women representative members	79
4.5.3	Selection of participants from Women Health centers	80
4.6	Operation of Focus group interviews	80
4.7	Process of the conducting focus group interview.	81
4.7.1	Selection of moderator	81
4.7.2	Selection of location	81
4.7.3	Processing of focus group interview	81
4.7.4	Beginning of the focus group interview	82
4.7.5	Precaution adopted to improve the quality of data	83
4.8	Analysis of focus group interviews	84
4.8.1	Respondent's view about education	86
4.8.2	Focus group respondent's views about occupation	86
4.8.3	Perception about effect of family income	87
4.8.4	Feelings of participants about the changes occurred to demographic	87

aspects	
4.8.5 Family size preferences	88
4.8.6 Sex preferences	88
4.8.7 Perception regarding marriage pattern	89
4.8.8 Feelings regarding infant mortality	89
4.8.9 Gender roles change	90
4.8.10 Communication on family matters	90
4.8.11 Perception regarding use and non-use of contraception	91
4.8.12 Perception about Conservatism	92
4.8.13 Religiosity and fatalistic attitude	93
4.8.14 Perception of respondents about normative cost	94
4.8.15 Respondent's view about the physical cost of contraceptive	94
4.8.16 Perceptions regarding attitude of health providers	95
4.8.17 Satisfaction level about the provision of health facilities	95
4.9 Summary and Conclusion:	96
GENERAL CHARACTERISTICS OF RESPONDENTS AND INDEX VARIABLE	
5.0 Introduction:	97
5.1 Socio- economic, cultural& demographic variables:	98
5.2 Age of Husband:	98
5.3 Respondent age at marriage:	99
5.4 Husband age at Marriage:	100
5.5. Respondent's Literacy:	100
5.6 Husband Literacy:	102
5.7 Occupation of Respondent:	102
5.8 Respondents monthly income:	103
5.9 Respondents Husband occupation:	104
5.10 Family monthly income:	105
5.11 Type of family living in:	106
5.12 Are you married within family?	106
5.13 Which set up of family you prefer	107
5.15 No of live births:	108
5.16 Respondent wants of more Children:	109
5.17 Husband wants more children:	110
5.18 How many boys	111
5.19 Sex preference:	111
5.20: Husband Allows Activities:	113

5.21	Gender roles and relationship	114
5.22	Do your husband can allow you in following activities?	114
5.23	Behavior pattern concerning participation in decision-making:	115
5.24	Percentage distribution of variable Communication:	116
5.25	Distribution of respondents of variable religiosity and contraception:	117
5.26	Reproductive Health Issues and Matters And Health Facilities.	118
5.27	Have you ever has reproductive health problems:	119
5.29	When woman have more chances of pregnancy:	121
5.36	Knowledge regarding birth control	125
5.42	Users of contraception	130
5.44	How to change behavior regarding contraception? Are you ready to change?	132
5.48	Health provider's attitude	136
5.49	Facilitation of reproductive health problems	136
5.50	Prenatal Checkup	136
5.51	Post partum Checkup	137
5.52	Privacy and facility available with doctors	137

EXPLORING RELATIONSHIP AMONG VARIABLES& TESTING OF HYPOTHESES

6.1	Introduction	140
6.2	Socio-economic variable's influence on reproductive health	140
6.2.1	a) Family size (Norm) b). Use or not use of contraception	140
6.2.2	Age at marriage	141
6.2.3	Respondent's literacy	144
6.2.4	Husband's literacy	145
6.2.6	Respondent's level of education	146
6.2.7	Husband education	147
6.2.8	Respondent's occupation	148
6.2.9	Bi-variate Relationship of family size with Occupation of Spouse	149
6.2.10	Husband's occupation	150
6.2.11	Family income	151
6.2.12	Type of family	152
6.2.13	Family setup preference	153
6.2.14	Sex preference	154
6.2.15	Family size and domestic chores	156
6.2.16	Allow for household activity	157
6.2.17	Women participation	158
6.2.18	Communication on family matters	160

6.2.19	Religiosity	161
6.2.20	Physical cost of contraception	162
6.2.21	Normative cost	164
6.2.22	Attitude of the health providers	165
6.3	Relationship of dependent variable contraceptive use with independent variables	168
6.3.2	Respondent's literacy, and use of contraception	171
6.3.3	Husband's literacy and use of contraception	174
6.3.4	Respondent level of education and use of contraception	175
6.3.5	Husband's education level and use of contraception	177
6.3.6	Respondent's occupation and use of contraception	179
6.3.7	Husband's occupation and use of contraception	181
6.3.8	Family Income and the use of contraception	183
6.3.9	Family income and use of contraception	183
6.3.10	Type of family and use of contraception	186
6.3.11	Family setup preference and use of Contraception	187
6.3.12	Sex preference and use of contraception	188
6.3.13	Domestic chores and use of contraception	191
6.3.14	Household activity and ever use of contraception	193
6.3.15	Contraceptive use with women participation in decision making processes	196
6.3.16	Contraceptive use, and communication on family matters	198
6.3.17	Religiosity and use of contraceptives	201
6.3.18	Physical cost and use of contraception	203
6.3.19	normative cost and use of contraception	205
6.3.20	Attitude of the health providers and use of contraception	209
6.4	Correlation Analysis	213
6.5	Multi-variate Analysis for examining the relative importance of predictor variables:	215
6.6	Linear regression model:	215
6.9	Logistic Regression for explaining contraceptive behavior	218
6.9.1	Logistic regression model for all areas	220
6.10	Summary:	222
	Findings, conclusions and Policy Recommendations	223
	Introduction	223
7.1	Age at marriage of spouse	224
7.1.1	Spouse education	225
7.1.2	Family income	226

7.1.3	Husband participation in domestic chores	227
7.2	Religiosity	228
7.3	Physical and normative cost	228
7.4	Attitude of health providers	
7.5	Conclusions	229
7.6	Policy recommendations	230
7.6.1	Increase in literacy ratio	230
7.6.2	Attitudinal change	232
7.6.3	More knowledge about reproductive health	232
7.6.4	Democratic home environment	232
	Bibliography	234
	Appendix	255
	Annex-1 Interview schedule	255
	Annex-2 Simple Tables	261-273

LIST OF TABLES AND A MAP

1.1	Demographic comparison among regional countries	5
1.2	Population Growth in Pakistan	15
1.3	Table: 1.3. Health facilities in Pakistan	16
1.4	Table: 1.4. Health facilities	16
1.5	Table: 1.5. Demographic Indicators of Pakistan	17
1.6	Table 1.6 Health Facilities/Centers	19
1.7	Table 1.7 Sample communities and R H Centre in study area	19
Map	Colored Map of N.W.FP---Pakistan	20
1.8	Table 1.8 Population and inter-census increase since 1951 of Peshawar	21
1.9	Table 1.9. Population and inter-census increase since 1951 of Kohat	21
1.10	Table 1.10 Age & sex composition in Peshawar and Kohat since 1998	23
5.1	Table 5.1 Ages of Respondents	98
5.2	Table 5.2 Age of Husband	98
5.3	Table 5.3 Respondent ages at marriage:	99
5.4	Table 5.4 Husband age at Marriage:	100
5.5	Table 5.5 Respondent's literacy	101
5.5a	Table 5.5a. Respondent's Literacy:	101
5.6	Table 5.6 Husband Literate:	102
5.7	Table 5.7 Respondent's Occupations	103
5.8	Table 5.8 Respondents monthly income	103
5.9	Table 5.9 Husband's occupation	104
5.10	Table 5.10 Family monthly income	105
5.11	Table 5.11 Type of family living in	106
5.12	Table 5.12 Are you married within family	106
5.13	Table: 5.13 Which set up of family you prefer?	107
5.14	Table: 5.14 No of pregnancies	108
5.15	Table 5.15 No. of live births	108
5.16	Table 5.16 Respondent want of more Children	109
5.17	Table 5.17 Husband wants more children	110
5.18	Table: 5.18 How many boys	111
5.19	Table: 5.19 Percentage distribution regarding perceptions of Sex Preference:	111
5.20	Table 5.20 Husband Allows Activities	113
5.21	Table 5.21 Gender roles and relationship	114
5.22	Table 5.22 Percentage distribution regarding Participation	114
5.23	Table 5.23 Behavior pattern concerning participation in decision-making:	115

5.24	Table 5.24 Percentage distribution of variable Communication	116
5.25	Table 5.25 Distribution of respondents of variable religiosity and contraception	117
5.26	5.26 Reproductive Health Issues and Matters And Health Facilities.	119
5.27	Table 5.27 Have you ever has reproductive health problems	120
5.28	Table 5.28 Complication/issues	120
5.29	Table: 5.29 When woman have more chances of pregnancy?	122
5.30	Table: 5.30 Where did you get advice during pregnancy?	122
5.31	Table: 5.31 Have you ever-faced delivery complications?	123
5.32	Table: 5.32 Ever-Faced RTF:	123
5.33	Table: 5.33 In your opinion what was the cause of R.T.F? 72	124
5.34	Table: 5.34 Where did your last live birth take place?	124
5.35	Table: 5.35. Whom did you consult after delivery?	125
5.36	Table 5.36 Do you know about birth control methods:	126
5.37	Table: 5.37 Have you ever used methods of contraception?	126
5.38	Table:5.38. If yes, where did you get it?	127
5.39	Table: 5.39 Which method of birth control are you currently using/ did use?	128
5.40	Table: 5.40 Who decided for contraceptive use?	128
5.41	Table 5.41 Did you have any side effect with the use of contraception:	129
5.42	Table 5.42 If not using; who decided to use contraception to avoid pregnancy:	130
5.43	Table: 5.43 what is particular reason for not using F P methods?	132
5.44	Table 5.44 Are you ready to change your behavior?	133
5.45	Table: 5.45. If yes, who motivated you?	133
5.46	Table: 5.46 Distributions of respondents views about the cost of Contraception:	134
5.47	Table 5.47 Percentage distribution concerning feelings and views about the use of contraception	135
5.48	Table: 5.48 Health provider's attitude	136
5.48a	Table 5.48a How often you visited health Clinics	136
5.49	Table 5.49 Facilitation of reproductive health problems	136
5.50	Table 5.50 No of prenatal check up	136
5.51	Table 5.51 Post partum:	137
5.52	Table 5.52 Do you desire to discuss problems in privacy?	138
5.53	Table 5.53 Confident to discuss health problem with doctors and nurses:	138
5.54	Table:5.54 Attitude of the health providers	138
6.1	Table 6.1 Bi-variate relationship of family size with age at marriage	141
6.2	Table 6.2 Bivariate relationship of family size with respondent's literacy	144

6.3	Table 6.3 Bivariate relationship of family size with husband's literacy.	145
6.4	Table 6.4 Bivariate relationship of family size with Respondent level of education.	146
6.5	Table 6.5 Bivariate relationship of family size with husband level of education:	147
6.6	Table 6.6: Bivariate relationship of family size with occupation.	148
6.7	Table 6.7 Bi-variate relationship of family size with husband's occupation.	150
6.8	Table 6.8 Bivariate relationship of family size with family income.	151
6.9	Table 6.9 Bi-variate relationship of family size with type of family	152
6.10	Table 6.10: Bivariate relationship of family size with family setup preference:	153
6.11	Table: 6.11 Bivariates relationship of sex preference with family size.	154
6.12	Table 6.12: Bi-varaiate relationship showing family size husband participation in and domestic chore	156
6.13	Table: 6.13 Bi-variate relationship of family size with permission for household activity.	157
6.14	Table: 6.14 Bivariate relationship of family size with women participation.	158
6.15	Table 6.15 Bivariate relationship of family size with communication on family matters.	160
6.16	Table 6.16 Bivariate relationship of family size with religiosity.	161
6.17	Table 6.17 Bivariate relationship of family size with physical cost.	163
6.18	Table 6.18: Bivariate relationship of family size with normative cost:	164
6.19	Table: 6.19 Bi -variate relationship of family size with attitude of the health providers.	165
6.20	Table 6.20 Age at marriage	169
6.21	Table: 6.21 Bivariate relationship of contraceptive use with respondent's literacy.	171
6.22	Table: 6.22 Bivariate relationship of contraceptive use with husband literacy.	174
6.23	Table: 6.23 Respondent's level of education.	176
6.24	Table 6.24 Bi-variate relationship of contraceptive use with husband level of education.	177
6.25	Table: 6.25 Bivariate relationship of contraceptive use with respondent's occupation.	180
6.26	Table: 6.26 Bi-variatc relationship of contraceptive use/not use with husband's occupation	181

6.27	Table: 6.27 Bi-variate relationship of contraceptive use with family income.	184
6.28	Table: 6.28 Bi-variate relationship of contraceptive use/not use with type of family.	186
6.29	Table: 6.29 Bi-variate relationship of contraceptive use/not use with family setup preference	187
6.30	Table: 6.30 Bivariate relationship of contraceptive use with sex preference.	189
6.31	Table: 6.31 Bivariate relationship of contraceptive use with domestic chores.	191
6.32	Table: 6.32 Bi-variate relationship of contraceptive use with husband's permissiveness.	194
6.33	Table: 6.33 Bi-variate relationship of contraceptive use with women participation in decision-making.	196
6.34	Table: 6.34 Bi-variate relationship of contraceptive use with communication on family matters.	198
6.35	Table: 6.35 Bi-variate relationship of contraceptive use with religiosity.	201
6.36	Table: 6.36 Bi-variate relationship of contraceptive use with physical cost.	204
6.37	Table: 6.37 Bivariate relationship of contraceptive use with normative cost.	206
6.38	Table: 6.38 Relationship of Contraceptive use with attitude of the health providers.	209
6.39	Table 6.39 Pearson's (pair wise) correlation between predictors and outcome variables.	214
6.40	Table 6.40 Stepwise regression analysis results for family size of respondents with independent variables.	217
6.41	Table 6.41 Stepwise regression analysis results for contraceptive use/not use of respondents with independent variables.	221
6.42	Table. 6.42 Logistic regression analysis is used for prediction.	222
6.43	Table. 6.43 Use or not use of contraception:	222

1.1 Introduction

The chapter presents brief description of issues regarding increase in human population adversely affecting and creating problems for human beings concerning socioeconomic, demographic and health. The focus of the study is how to mitigate and combat increasing burden of population in developing countries like Pakistan in general and the study area in particular. The rapid growth in south Asia with high density of population has created intensity and problems of diverse nature. The main reason of this turmoil in many areas of life is related to high fertility.

In fact, mushrooming of population at international level has generated reproductive health, as serious social problem, which is defined as the constellation of methods, techniques and service that contribute to reproductive health and well being of women by preventing and solving the health problems (Pasha, 97).

The south Asian region including Pakistan has been experiencing health problems due to high population growth. The fertility transition is rapid in the last decade, with fertility decline at high rate in relation to rest of Asia, (Feeney and Alam 2003).

Sexual and reproductive health is the core of people's lives and well-being. The focus on sexual and reproductive health is justified on grounds of human rights, equity and social justice. The initiation of cost effective methods for preventing reproductive health problem is necessary. It should base upon effective diagnosis of the complications, and impact assessment of the socio economic and cultural factors effecting ill health of women. The study is designed to investigate the effects of socio-economic and cultural factors in terms of education of husband and wife, occupation of both, family income, and family structure. Demographic factors in terms of, current age, family size and sex preference, marriage pattern, duration of marriage; ideal family size, infant and child mortality. Cultural factors in terms of gender roles: wife's participation in the decision-making process, husband-wife communication on contraceptive, religiosity, conservatism, physical and normative cost of contraception, and program factors in terms of availability and accessibility of reproductive health facilities with proper utilization, and attitude of health providers (Nushin,97).

The research attempted to look into rising consciousness in the field of family size limitation, i.e. (family planning), and use of contraception within socioeconomic and cultural context.

The world has publicly acknowledged that health; well-being, and equality, for women are important end. Every year more than 500,000 women die from pregnancy related disease in developing countries WHO (2002). Globally, 43 percent of all women, in addition, 51 percent of pregnant women die from Iron-deficiency anemia. One hundred and twenty (120) million women say that they do not want to be pregnant, but are not facilitated in using family planning methods, due to non-availability of services and other socio-cultural hindrances. Twenty million unsafe abortions are resulting in tens of thousand of deaths, and millions of disabilities in a year.

1.2 International perspective:

a) Brief history of reproductive health: As discussed above, social scientists have been working on population control and development. More detail regarding the turning point in the history of reproductive health is described as following.

The memorable day was 13th of September 1994, in Cairo, Egypt. Representatives from 180 nations gathered, among them thousands of women of every race and creed, jubilant for having won more than they had dared hope for improvement.

The Cairo, (1994) conference defined reproductive health in this way. "Reproductive health is a state of complete physical, mental and social well-being and not merely absence of disease or infirmity, in all matters relating to reproductive system and to its functions and processes".

The world had publicly acknowledged that health; well-being, equity, and equality, for women are important ends in themselves. They had agreed that finding the balance between resources and population, the development and sustainability was a great concern of people. This is the Cairo Programmed of Action, which has set the course for the next twenty years following the declaration focusing on people and their needs.

This was the beginning of the paradigm shift from maternal and child health to reproductive health. Many issues can be encompassed within reproductive health concerns. Yet, the diversity and breadth of issues mean that even if a single, universally applicable, all-encompassing definition of reproductive health is ever agreed, it will be almost impossible to operationally.

The negligence about women and their health needs have been the subject of greater attention worldwide. International Conference on population and Development (ICPD, 1994) have endorsed the rights of women adolescents and young adults to obtain the highest levels of health care. In response, more health policies and services are becoming “women and youth friendly”: Staff is being trained to be more sensitive to the needs of women. Fees for young clients are being reduced by involving women, and their families, in health provision in improving the quality of reproductive health care for women. Outreach activities are being offered at convenient hours for women who attend school or who work. Some clinics now provide services to young men and offer reproductive health care to young women before they have had their first child.

The basic concerns regarding health related with issues have two themes, the first related with medical sciences and the second related with social sciences. The medical science deals with anatomy and physiology of human beings and its relationship with human health. The medical science also study health and defines reproduction; that is change in physiology of women due to reproduction, creating complications in her body affecting her health in community.

Whereas social science study social phenomena deals with change in social, economic, cultural and psychological process affecting human beings in one form or another in society. The reproduction brings about changes in woman health physically and its impact on their health. Social science discuss about structure and function of society. Thus, the holistic study of these sciences leads toward a happy marriage between social sciences and medical sciences, because it affected most of the women at individual and communal level, affecting woman’s life span and health ultimately.

Reproductive health reflects health in childhood and set the stage for health even beyond the reproductive years, for both women and men. It affects and allocates in broader context of people’s lives, their economic circumstances, education, employment, living conditions, family environment, social and gender relationship and traditional and legal structures within which they live. For example, gender discrimination in intra-household allocation of food may lead to stunted growth and anemia in girls by the time they reach adolescence. In later life, they may experience obstructed labor due to increased infections from anemia. Reproductive health also includes sexual health, the purpose of which is the enhancement of life and personal relations, and not merely counseling, care related to reproduction and sexually transmitted diseases (STDs).

More than fifteen million girls' at the age of fifteen to nineteen years give birth every year (WHO, 2001). The five core areas of reproductive health include: healthy childbearing, fertility regulation, maintenance of a healthy reproductive system, sexuality and sexual behavior within socio-cultural context which is also related to reproductive behavior and ill health. Cost-effective, service-based strategies for preventing or treating reproductive health problems exist for many of the leading issues in the field. One of the Preventive approaches in family planning include; safer sex, immunizations and breast-feeding promotion programs, at the heart of efforts are to combat unwanted and unplanned pregnancy, induced abortion, maternal morbidity, mortality and general ill health(WHO, 2002).

Moreover, the reproductive health defined and discussed as an important topic of social and medical sciences, because it affected everybody in society. It reflects health in childhood and sets the stage for health even beyond the reproductive years, for both women and men. It affected and allocated the boarder context of people's lives, their economic circumstances, education, employment, living conditions, family environment, social and gender relationship and traditional and legal structures within which they live. All nations accepted aims of the International Conference on Population and Development (ICPD, 1994).

1. 3 Regional scenarios regarding demographic comparison.

The demographic scenario in Asia reveals that the situation is getting grim due to increasing burden of population, which has created vicious circle of poverty. In fact, meager resources and limited access to basic amenities has leded the people to substandard life, and deficient social services.

Health is a priority area of all Governments activities in the region. The high correlation between the expenditure on health and productivity in developing countries like Pakistan is enough to emphasize the importance of increasing health services as an aid to growth. Hence, in the health sector, poverty and ill health needed to be brought into sharp focus. Provision of better health facilities to improve the standard of living of the people in the country has been the paramount aim of the efforts in this sector. In Pakistan, health infrastructure has developed significantly over the years. However, the improvement so far made was far from impressive.

A number of inadequacies such as unhygienic living conditions, spread of health facilities, scarcity of potable drinking water, paucity of capital resources to meet the recurring expenditure, malnutrition particularly among the children and women of

reproductive age and suffering from the worse effects of Malaria, Tuberculosis, AIDS and Drug Abuse are the major areas of serious concern. The low level of life expectancy (63 years), high child mortality rate (110/100) and high population growth rate at 2.1 percent provide priorities, and points out to the need for the better health planning by increasing the health allocation and trying out prioritized program with special focus on particular diseases. The comparison has been made among most of the regional countries, to understand the gravity of problem indicated in the following t

Table 1.1: Demographic comparison among regional countries

Country	Life expectancy in year 2000	Infant mortality rate per 1000	Mortality Rate under five in year 2000	Population Avg. Annual % Growth in 1990-2001
Pakistan	63.0	83.3	110.0	2.1
India	63.0	69.2	88.0	1.8
Sri Lanka	73.0	15.0	18.0	1.3
Bangladesh	61.0	60.0	83.0	1.8
Nepal	59.0	73.6	105.0	2.4
China	70.0	32.0	39.0	1.0
Bhutan	62.0	57.6	-	2.9
Thailand	69.0	27.9	33.0	0.9
Philippines	69.0	30.7	39.0	2.1
Malaysia	73.0	7.9	11.0	2.4
Indonesia	66.0	40.9	51.0	1.6

Source: World Development Report (2003-04)

Demographic comparison of Pakistan with regional countries is shown in the table above, indicated that infant mortality and mortality under five years of age, is the highest in Pakistan. Population growth is 2.1, which is also high; and the life expectancy was not up to the mark, because if compared with other countries; the life expectancy in China was 70, and Sri Lanka was 73 years in (2000-01) respectively.

1.4 Reproductive Health in National perspective:

In Pakistan, 28 thousand women die every year due to pregnancy and childbirth complications (WHO, 2003). The fertility rate is high in Pakistan, i.e. 5 to 6 children per women approximately. Contraceptive prevalence rate is low with 19% only. The population is increasing with high growth rate of 1.9%, (Census report 98). We are more than 165 million. Fifty percent of women intend to have three children in Pakistan. They cannot afford more than three children. Fifty percent of all maternal deaths are saved if the women stop becoming pregnant after the age of 35 years. The life of thousands mothers can be saved if they avoid the too many.

While examining, the couple's reported family size, their demand for children and measuring their motivation for fertility limitation. The Pakistani society is considered traditional and patriarchal in nature with respect to family structure and fertility behavior (Nushin, 1997).

The preference for sons over daughters was quite prominent along the desire for at least one child of each sex. Sons are thought to be future assets for economic productivity, the providers of securities in emergencies and a way to carry on the family name. The son preference seems to affect behavior of couples relating to reproduction and as a result brought changes in fertility (Radheshyam, 2001).

The reproductive behavior could be positively affected by significant gap between the desired and actual fertility, which may lead toward unwanted pregnancies (Hakim, 2000). Such behavior pattern could check high fertility resulting high population growth.

In Pakistan, the data showed that population will continue to grow in future because the age structure is reflecting a sustained high fertility in the past. About the forty percent of the population are below age 15, and 22% of the population are females in the reproductive age group (15-49). This may result further increase in population at fast rate in future (Hakim, 2000).

Purpose of study: The purpose of study is to diagnose the problem relating to reproduction i.e. family size and prevention of large family size with the introduction of methods of contraception and sexually transmitted diseases. Reproductive health includes sexual health consisting of the following.

- 1 Quality family planning including a full range of contraceptives.
- 2 Maternal care, including prenatal, post-partum care, and essential obstetric care.
- 3 Immunization to both, pregnant mother and newborn baby.

- 4 Prevention and treatment of reproductive tract infections, including sexually transmitted diseases, and availability of affordable contraception.
- 5 Access to quality services for complication from unsafe abortion, in circumstances where abortion is not against the law and such abortion should be safe.
- 6 Information, education and counseling on sexual and reproductive health.
- 7 Referral health system for these and other conditions, such as breast cancer, cancers of the reproductive system, and infertility.

1.5 Background:

According to 1981 census in Pakistan, women have many problems of general and reproductive health. For example, overall diabetes in women is higher at a national level as compared to men, both in the NWFP, province as well as the entire country. Total disability was 44.5 males to 55.5 females. Both maternal and neonatal mortality is high in Pakistan. Exact numbers are not available, because the registration of births and deaths is not compulsory in many of the areas, including urban and rural of Pakistan (NIPS-2001).

The revised estimate of maternal mortality ratio (MMR) places the Pakistan at 340 deaths per 100,000 live births recently. By this estimate, over 18,000 women die each year because of pregnancy related causes (UNICEF 1996).

Maternal mortality is not a medical problem. It represents the result of a chain of interrelated factors starting from women's births (Fathalla, 1987). Moreover, woman in the developing world steps into the dark downhill road to maternal death by virtue of her being born in an under privileged society. There are outlets from this road in the form of raising status of women, provision and utilization of family planning services, community based maternal services, referral services through which women can be rescued and reproductive health problems of women community must be addressed both at the National, and International levels.

The (WHO, 1996) report disclosed that anemia was found in 40% of all women at reproductive age. One third of half of these women became mothers before reaching their 20th birthday. Special attention to the diet of women is vital in pregnancy. The socio-cultural practice in few areas of Pakistan has shown inequity, injustice, and unequal diet provision for women. Men are given the nutritious food, as they are the bread earners of the family.

In recent years, more focus is given to the differences in pharmacological responses, role of endogenous hormones and exogenous sex steroid hormones are now

well recognized to play a vital role in basic pharmaco-kinetic mechanism in women. Menstruation, menopause, pregnancy and lactation well known to be vulnerable periods in a woman's life (WHO, 2004).

1.6 National Programs on Reproductive Health:

The program aims at delivering basic health services at the doorsteps of the unprivileged segment of the society through deployment of Lady Health Workers (LHWs) living in their own localities. The program implemented with strength of 70,000 lady health workers and 3,000 lady supervisors nationwide; mainly in rural areas and urban slums of the country. These workers were providing service to their communities in the field of child health, nutrition, family planning and treatment of minor ailments. The scope of lady health workers increased to include the wider concept of Reproductive Health. This was augmenting the activities of the Expanded Program of Immunization. In view of effectiveness of the LHWs at the grass root level, the government decided to utilize their services in many other public health programs. These programs were expanding in a phased manner. The target of 100,000 LHWs in the field achieved; with this strength, LHWs were conversing 90% of the target population.

1.7 Research Program on reproductive health:

Research Program executed by National Institute of Population Studies (NIPS) based in Islamabad is an autonomous body assigned the responsibility of undertaking interdisciplinary research. The institution conducted impact studies of the population, welfare program and dissemination of information and training. The stress of research is laid upon special surveys and other research oriented subjects with special focus on population and development, reproductive health, family planning, access to health services, in urban and rural areas.

1.8 Health facilities:

Both the public and private sector are providing medical facilities in the country. Medical facilities are constantly increasing in the country. The present national infrastructure of health facilities with 906 hospitals, 4590 dispensaries, 5500 Rural Health Center, 5308 Basic Health Units and 98246 hospital beds (see Table 2.5) compare well with other developing countries. However, the availability of one Doctor for 1466 persons, one Dentist for 29405 people, one Nurse for 3347, and one Hospital bed for 1517 persons reflects poorly on the health status of the country. The benchmarks of various health facilities are as under: -

a) Health issues in the urban sector.

One in ten live born infants in Pakistan dies before its first birthday, with over half of these deaths occurring in the first four weeks of life. Child mortality is inversely related to the educational status of the mother with small increments in education levels significantly lowering the child mortality rate. The sex difference in child mortality is one of the highest in the world with death rates for girls aged one to four years, and 66 percent higher in girls than boys in the same age group, WHO (2005).

Abortion is only available under very restrictive conditions and unsafe abortion is widespread. The prevalence of HIV infection estimated was 20,000-50,000 WHO (1995) with a projected 250,000 cases by the end of the millennium. There is a need to raise awareness of HIV/AIDS: promotion of condom use for prevention of infection should not be difficult as there is generally a high acceptability of condoms in Pakistan. Women have a very low social status in Pakistan. They form 48 percent of the population, on average have only one year of schooling and form 13 percent of the labor force. Marriage is universal with high proportion of marriages between relatives. The legal age of marriage is 18 years for women, and a one third of teenage women are giving birth. The practice of seclusion makes it difficult for women to access services outside the home and for female health workers to travel alone or in the company of men. The female literacy rate remains low at around 24 percent; however, this is a considerable improvement from 1970 when only five per cent of women were literate.

More detail regarding Pakistan; given in the next section. Pakistan is the World's seventh populous country and population growth has quadrupled from 33 million (1947) to over 130 millions in 1996, with a large number of people at their reproductive age. The population growth rate is unlikely to decline significantly in the near future even if there is a reduction in fertility. Pakistan has a long standing family planning programs, however lack of trained female personnel, inadequate community outreach, poor geographical coverage and inconsistent political support, have constrained progress and rapid population growth has eroded economic advances.

Pakistan is essentially an agricultural country with around 70 per cent of the population living in rural areas. There is a wide income disparity between the poorest and the wealthiest households in Pakistan. The Population is 97 per cent Muslim and the organized religious political party officially opposes family planning as un-Islamic. There is a tendency for large families and a strong correlation between lack of education and large family size. There is a strong preference for sons and women have a very low status

in Pakistani society. Although there is evidence of a relatively high level of awareness of family planning, contraceptive use remains low, with estimated contraceptive prevalence rates is nine to twenty four percent (NIPS, 2003).

Until recently few aid agencies gave much support to city or municipal governments to improve women reproductive health urban areas. Many of the recent initiatives in urban health are strongly project based, as reflected in the descriptions of the activities of bilateral and multilateral donors in many countries of the developing world; (Doldstein et al, 1998). These projects are often not very well integrated into the existing health care delivery and health promotion system of the countries concerned and/or do not pursue the health management approach. Reviewing the chapters on women health; that describe the various initiatives of these donors as well as NGOs reveals the strong relationship of the projects and program with the respective Ministries of Health. However, any Ministry of Health is mainly a technical ministry that has little control of overall planning activities at central and local government level in N.W.F.P.

Most agencies dedicated less than 10 percent of their total commitments to those inputs. UNICEF, with its emphasis on women health and Urban Basic Services was a notable exception. Most expenditure in the urban sector was on large infrastructure projects such as ports, power stations and public transport. For bilateral interaction, these investments promote their exports and contracts for their own companies.

1.9 Population policies effecting family structure:

Population policies are actions taken by related government in form of law, regulation and program that influence the change in population, and promote social and economic development within cultural framework. Reproductive health policies containing set of numerical goals increasing the use of family planning methods and to decrease the child and maternal mortality, and check cultural constraints regarding contraception. The norm of small family size reflects a transformation in attitude about child bearing, and their number. A district based multiple indicator cluster survey (2002) in Frontier province indicated the country's tendency to cultural change have become more urban, and as women have achieved higher level of education to marry later and couple wanted fewer children i.e. tendency toward smaller family. In the last decade the growing availability of contraception, such as pills injections intrauterine devices, and sterilization of modern contraceptives methods, that has made possible for women to space the births and also better communication developed with change in family socio

economic and cultural factors. In spite of these improvements in reproductive health, the reproductive health is still a major issue in NWFP and need empirical investigation.

Women usually marry at younger age than men do, and the gap is wider in low-income group. The age difference between couple increases women weaker authority. The women contacts and education becomes incomplete due to early child bearing. As a result, they are dependent on man. The gender gap is narrowing in some societies for enhancing the rights of women regarding divorce and marriage, which means change in role and relationship of spouse. At the beginning of chapter, regional demographic comparison is given to know factual condition of health in general and reproductive health in particular effecting demographic factors in Pakistan and the region

a) Role of Family Planning Association of Pakistan (FPAP)

The Family planning Association of Pakistan is the largest non-government organization in the social sector and alongside the Government, is the key provider of family planning services in Pakistan, FPAP has successfully evolved since its foundation in 1953 to incorporate a broad-based strategy of integrating family planning into overall national development. This includes focusing on women's social status and development, involving youth, encouraging community participation and broadening the scope of service provision to incorporate reproductive health care, safe motherhood child survival.

The Association has target to reach or exceed its strategic goals of extending its reach by 100% and increasing service delivery by 50 per cent by the year 2002. FPAP has 160 work units, with over 540 service outlets in all provinces of the country and contributes 10-12 percent of the family planning national service delivery. FPAP were pioneers in the conceptions of social marketing of contraceptives, family welfare centers and reproductive health services. FPAP has also been involved in the clinical trials of Norplant.

The FPAP have created educational programs including mass media activities, a mobile audio-visual van, AIDS awareness programs, a monthly journal 'Sukhi Ghar' and an award winning program educating newly married couples.

Their services include the provision of reproductive health services through family health clinics and hospitals, mobile units, outreach work and doorstep services. They have successfully built networks with other organizations and groups such as the Armed Forces, private physicians and other NGO's. Collaborative projects include the Azad Jammu and Kashmir Health Services and Family Planning Project and the family Planning on the Roof of the World (northern areas). They organized educational

workshops, skills training, literacy and environment conservation for the development and empowerment of women and the girl child (FPAP) also run training programs for physicians, Hakims (traditional practitioners), dais (traditional birth attendants), paramedics, family welfare workers, volunteers and staff. A woman health project has been working in four districts of N.W.F.P. The focus of the project is to address the problems of women reproductive health.

b) Population of Pakistan

Population of Pakistan has been growing at the rate of 2.1 percent per annum approximately, and there is an addition of 3.1 million persons every year. As a result Pakistan has been facing a formidable challenge of tackling the issue of economic development and poverty reduction. Such sizeable addition to the population not only dilutes the results of the development efforts but also creates unsustainable level of demand on already scarce resources to cater for the needs of the population. In the past, high population growth has significantly pushed the population below poverty line. If current trend persists, Pakistan's population will reach 217 million by the year 2020. Based on present growth patterns and trends, the economy would not be able to sustain the growing pressure of population and resultant deterioration in quality of life will foil government's recent efforts for social uplift. The high population growth is, therefore, a matter of national concern. Hence improving the effectiveness of population welfare program can augment the thrust for improvement in quality of life, social uplift and economic development.

It is important to note with population of 149 million (2003), Pakistan rank at seventh position in terms of World's population size. It is encouraging noting that the demographic transition has started and the growth rate estimated to decline to 1.8 percent by mid 2004. The country has to amass additional resources to feed, cloth and provide various services to population. The population of the country has marked with considerably high proportion of young age, high dependency ration by big size. The increasing number of population has resulted in low level of human development, low saving and investment ratios, low labor forced participation rate and low per capita income. Hence, Pakistan is classified among the low-income countries.

Pakistan's population increased from 32.5 million in 1947 to 132.4 million in 1998 and 142.5 million in 2001 and was expected to reach 163 million in 2007, 171 million in 2011 and 198 million in 2021. The increase is of similar trend in different provinces, region and districts. The population census of 1998 was undertaken after a gap

of seventeen years, since the last census of 1981. The population of Pakistan 132.4 million in 1998 indicates that the sex ratio was 108.1; population under age 0-14 was 43 percent, which is dependent on the working population and contributes to a built in momentum for future growth in population. The TFR of 4.8 recorded in 2001, is a sign of declining fertility. This is mainly due to rise in age at marriage which has risen to 22.7 years for female in 2000 because of rise in literacy rate, labor force participation, and also the increasing use of contraceptive among married women in Pakistan. This suggests that Pakistan would be able to achieve replacement level fertility (TFR 2.1) by 2021 leading to the process of population stabilization in the next three to four decades provided we continue to provide reproductive health and family planning services to the population and also accelerate socio-economic development

It is realized that variety and the quality of the research data related to women has lagged behind that of men. This relates to the epidemiological data as well as data in well planned and well conducted clinical studies due to poor number of recruitments of female subjects. Based on this realization there is emerging focus on the health problems of women.

The last decade has seen burgeoning interest in attention to women's reproductive health effecting women's mental health. The higher creates of depression; anxiety and eating disorders were seen in women compared to men that require further research to elucidate the etiological factors and optimal treatment of illness. The different patterns of schizophrenia were seen in women worsening at menopause as well. Problems in women are further evidence of gender difference in mental health. Women have unique health needs across the reproductive life cycle i.e. taking from menstruation, fertility, pregnancy and up to menopause, which has recently received attention from mental health professionals. The content of women's health is related to social context in which it occurs because of poverty, violence, discrimination and work inequalities. This research deals with socio economic and cultural factors of reproductive health. Gender sensitive psychiatry is vital for the comprehensive psychiatric care for female patients; the upset in psychic disorder is due to women health sickness.

Thus, major health issues in women are related to their sex, besides other factors; like poverty, education, industrialization, urbanization and environmental factors etc, which affect the health of men as well. A physical and mental health consequence of domestic violence presents a serious reproductive health concern for Pakistani women. Stove-burns, Karo-kari(values practiced in Sindhi society) and the Swara in Pushtun

society in NWFP and Baluchistan) was described by Niaz, U.(2001), that is honor killing of women, taken up seriously at the government level.

Nearly 1.7 billion people that are about one-third of the world's total population are between the ages of 10 and 24 (U N, 2001) with the vast majority of women living in developing countries get mature early and exposed to reproductive health risks such as sexually transmitted infections, sexually transmitted disease, unintended early pregnancies, complications from pregnancy and childbirth. Improving women's reproductive fitness care is necessary in improving the world's future of economic and social well-being.

However, women's reproductive health needs are overlooked, and thus viewed through a lens of cultural values, consisting of limited care. Health facilities frequently fail to provide adults with specialized reproductive health information, counseling, and services. Lack of experience in social negotiation, ignorance about their bodies that where to seek care, social stigma and poor treatment by health providers often limits people's access to the services they need.

Indeed health is a basic need of society. All the governments including Pakistan in the developing world seem committed to provide safe affordable and efficient system of health to all. Public health system has been working for the people everywhere through health institutions. Some of these institutions are private; whereas most of the institutions are public, it means that systems have been working for the benefit of masses. Public health planning and development agencies have been playing pivotal role in propagation of health.

Nevertheless, the process of health engineering and development is slow and not proper to meet the demand of people. As a result, the poor have been facing a lot of health problem in different areas including; urban slums, shanty towns (low-income colonies), and squatter settlement. As a result, a difficult situation created in the low class masses.

The consciousness about reproductive health has increased with education in community i.e. women community particularly. Although, the literacy rate in Pakistan is among the lowest in the world. There is a wide gap between male and female literacy rates. Primary school enrolment is also very low especially among girls, drop out and repeater rates are considered to be among the highest in the world. Only half the number of students who enter primary school completes five years of primary school. Beside low literacy in Pakistan, health facilities are not satisfactory in study area in particular. It is

described officially by (G.O.P, 2003) concerning health indicators that less than 55 percent of the population has access to health services.

The important factor that affects women reproductive health is related to cultural norms relating to family size, and lack of women participation in decision making about number of children. Women differ widely in their birth spacing practices in different regions, (Nushin, 2002).

The other factor influencing woman's reproductive health, include, the health status of her previous child as well as her personal characteristics including traditional practices, i.e. breastfeeding and postpartum abstinence. Now glimpses on the population history are given in the following:

Pakistan population was only 32.5 million at the time of independence and growth rate was 2.50. The population added more than 116 million people during last 57 years. The era of eighties showed high growth rate. The population was 90.30 million in 1983, and the growth rate was 2.99 percent. However, in middle of 2004, that was estimated as 148.72 million. The population has been increasing rapidly with the passage of time, which has been adversely affecting women health. The growth rate for the year 2001 was 2.06; whereas that has decreased to 1.90 in the year 2004, which mean relative low control on population growth. The total population in the year 2003 was 145.9 million, that has increased 148.72 million in the year 2004; shown in table 1.1

Table: 1.2. Population Growth in Pakistan

Year	Population in million	Growth rate%
1983	90.30	2.99
2001	140.36	2.06
2002	143.17	2.00
2003	145.95	1.94
2004	148.72	1.90

Source: Pop.Census.Org&M.O: 2004

There is need of reproductive health facilities for mitigating health problems of women population in the country. Undoubtedly rapid population growth has adversely affected health facilities and development activities in the country.

Medical facilities in Pakistan have improved significantly over the years. However, there still remained a very large gap between the availability and requirements of reproductive health facilities. At present, there are 108,062 registered doctors, 5530

dentists and 46331 nurses in the country which came to a population ratio of 1525 persons per doctor, 27414 persons per dentist and the availability of one nurse for 3788 persons. There are about 906 hospitals, 4554 dispensaries, 5290 basic Health Units and 552 Rural Health Centers. The availability of hospital beds in all hospital estimated at 98,684; that come to a population bed ratio of 1,536 persons per bed, deliveries at home are 76% given in table 1.3 and 1.2 respectively.

Table: 1.3. Health facilities in Pakistan

Health Manpower	Upto 2000-01	Upto 2001-02	Upto 2002-03	Upto 2003-2004
Registered doctors	91823	96248	101635	108,062
Registered dentists	4175	4622	5068	5,530
Registered nurses	37528	40119	44520	46,331
Population per doctor	1529	1516	1466	1,404
Population per dentist	33629	31579	29405	27,414
Population per Nurse	3732	3639	3347	3,296

Source: Ministry of Health (2004)

The detail regarding medical facilities presented in table no 1.4.

Table: 1.4. Health facilities

Outlets	12,000
One doctor	1552 persons
One nurse per	3788 persons
One hospital	15180 persons
Deaths below five	118 per 1000
Malnourished under 5	3.7 million
Deliveries at home	76%

Source: NIPS, 2003-04.

1.10 Demographic Indicators for Pakistan:

Mortality rate decreased and fertility has shown a significant decline over the recent years. The crude death rate (CDR) of Pakistan is estimated at 8.1 (per thousand) in 2003-2004(estimation GOP 03). Maternal mortality ranges from 350-400 per hundred thousand, per year leading to about seventeen thousand newborn babies being born motherless. The life expectancy in Pakistan for the year 2003-04 was estimated at 64.10

for males and 63.80 for females. The decline in mortality rate slowed when compared with those of many other developing countries.

Despite a considerable decline in the total mortality in Pakistan, infant mortality has remained high at 82 per thousand live births in 2004. The major reasons for this high rate of infant and child mortality are diarrhea and pneumonia. The Reproductive Health (RH) indicators include; Maternal Morbidity, Total Fertility Rate (TFR), Crude Birth Rate (CBR), Crude Death Rate (CDR), Infant Mortality Rate (IMR) and Maternal Mortality rate (MMR), and life expectancy at birth are reported in table 1.4.

Table: 1.5. Demographic Indicators of Pakistan

Indicator	Year (2003-04)
Total Fertility Rate (TFR)	4.3
Crude Birth Rate (CBR)	27.3
Crude Death Rate	8
Infant Mortality Rate (IMR)	82
Maternal Mortality Rate (MMR) (per 100 thousand live birth)	350-435
Life Expectancy Male & Female	63
Growth rate	1.9
Life expectancy	M-64 & F-63.80

Source: Population Census Organization, (2004-05)

1.10.1 Vital statistics

The system of collecting data regarding vital statistics showed that the crude death rate was about 25 to 30 per 1000 in 1947, and has now declined to about 12 or 13 per 1000. Factors contributing to the decline of mortality and fertility include better food availability and distribution, i.e. increasing pace of socio-economic development and improved disease prevention and control. Life expectancy at birth has increased from 35-38 years at the time of independence to almost 63 years in 2000. The infant mortality rate currently estimated to be less than 100 mainly due to improved health services and an affective immunization program. Available evidence suggests that more than one third, that is (36%), of all deaths occur during infancy in Pakistan (PDHS 1990-1991).

Moreover, one third of all infant death occurs during the first week of birth, and an additional 22 percent occur in the second to fourth week. In other words, more than half the number of infant deaths was because of neonatal deaths within fourth weeks of birth. The infant mortality rate was 82 per 1000 in Pakistan. The neonatal mortality was

54 per 1000 live births for the period 1997-2000; NIPS (2001-02). The child mortality under five years stated to be 103 per thousand.

Maternal deaths associated with complication of pregnancy and childbirth was very high, because of repeated and closely spaced pregnancies. It is estimated that about 500 maternal deaths occur per 100,000 live births each year in the country. The recent estimates by WHO and UNICEF (2002-03) placed the figure around 340. Child born too close to a previous birth was at increased risk of dying, which was particularly high when the interval between births was less than 24 months. The age at which a woman gave birth to her first child had an important health consequence. It was a major determinant of family size and rapid population growth. Resultantly, that factor restricts educational and economic opportunities for young mothers. For a woman, had a significant risk to health of both the mother and child, especially if the mother is less than 18 years. Two main factors leading to heightened risk are young age at birth of first child, and a short birth interval. Similarly, childbirth birth at older age i.e. 35 years or more increases the chances of dying of the infant as well as the mother.

1.10.2 Local perspective: Health facilities in NWFP:

Pakistan in general and N.W.F.P. in particular has been facing tremendous problems of health. It is the third largest populous province of Pakistan. The study area include district Peshawar and Kohat including rural and urban areas. The number of RHSC, Class-I are three in number, and MCH are nineteen in number in Peshawar, whereas in urban Kohat, single RHSC was found and that has been declared at the end of the year 2003. Only five mother and child health centers in whole the district of Kohat were found, shown in Table 1.6, given on next page. It means that the city needs more RHS centers, trained doctors and nurses to meet the need of growing population of urban center. A thorough analysis of urban centers indicated that the research area needs more trained personnel for this reproductive health.

WHO, UNICEF (2002) and other international institution criteria are far higher than Pakistan. The Frontier province has more health problems in country, particularly in field of women reproductive health that is due to insufficient health facilities and cultural and belief system. The comparison of latest census of 1998 showed that women mortality during childbirth as well as infant mortality rate was higher in NWFP, than Punjab and Sindh provinces. This is because of the fact that province has cultural constraints and deficient basic health facilities for women. Therefore, the province has been lagging behind other provinces. The study discussed that how health system could be improved

regarding women reproductive health. The brief of health facility given in table 1.7, showed deficient health facilities in study area.

Table 1.6 Health Facilities/Centers

S no	Health Facilities/Centers	Peshawar Number	Kohat Numbers
1	Hospital Class-I, Class-II, Class-V	10	6
2	RHSCs Class-1	3	1
3	BHUs	50	20
4	T.B. Clinics Class-1	4	1
5	MCH Centers	19	5
6	Leprosy Clinic	1	1
7	Dispensaries	77	14

Source: Directorate of health N.W.F.P (2002-03)

1.10.3 Glimpses of Women Reproductive Health

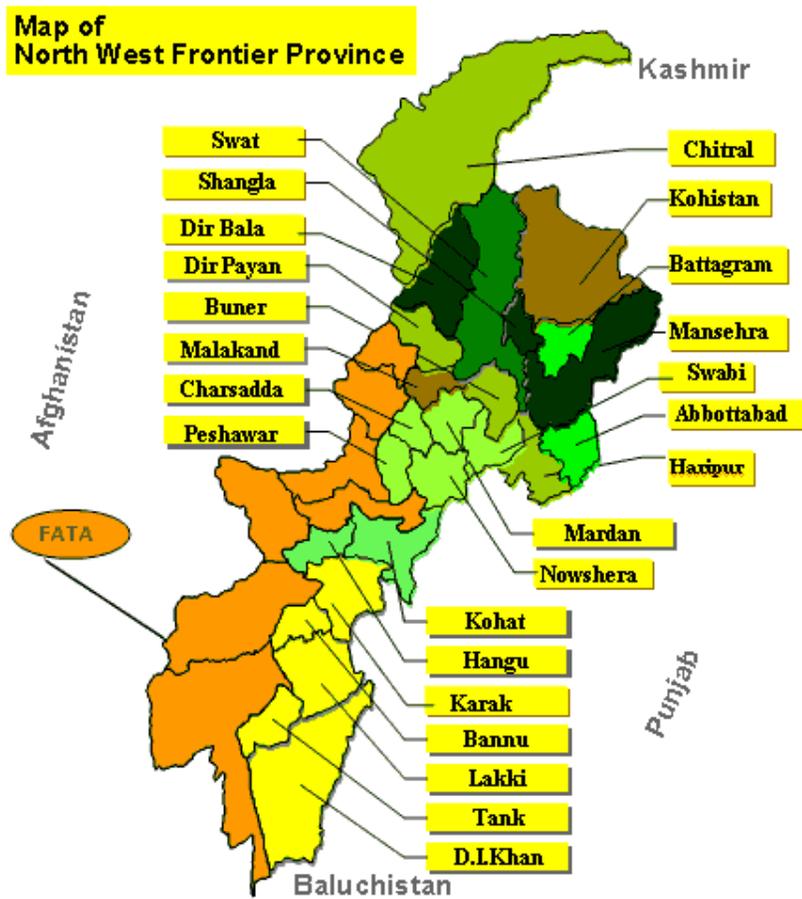
1. About 15million young women ages 15 to 19 give birth each year (United Nations Populations Fund, 1999)
2. Pregnancy-related complications are major cause of death and illness of girls ages 15 to 19 (Senderowitz, 1995)
3. In developing countries, larger proportion of women is marrying before age 20 than in earlier generations. Despite this trend, a significant proportion of women in developing countries marry by age eighteen years.
4. Young women between the age of 15 and 24 have the highest rates of STIs worldwide, with over two-thirds of all reported cases (Morell 1995). The proportion is even higher in developing countries. It is also a serious problem in Pakistan.

The detail of R H centers, and F W C in study area are shown in this table. The number health centers and communities sampled in urban centers in both study districts'.

Table 1.7: Sample communities and R H Centre in study area

PESHAWAR		KOHAT	
R. H. CENTRE	COMMUNITY	R. H. CENTRE	COMMUNITY
1) LRH, (RHC)	INNER CITY,	RHSC Z H KOHAT	MOH SHENO KHEL
2) HMC (RHC)	HAYAT ABAD	FWC URBAN	TOGHBALA
3) KTH (RHC)	UNIVERSITY TOWN	FWC TUGH BALA	TOGHBALA
4) F WC SHAHI BAGHI	SHAHI BAGH	FWC CUMBAT	GUMBAT
5) F WCI SHAHN DAND	CHOWK SHAH & SAEED ABAD	FWC CHORLAKI	CHORLAI
6) FWC PISHTAKHARA	PISHTAKHARA VILLAGE	FWC KHARMATO	KHARMATO
7) FWC LATIF ABAD	LATIF ABAD ISMAIL QUARTER	FWC SURGUL	SURGUL QALI
8) FWC FERAZABAD	FEROZABAD	FWC NUSRAT KHEL	NUSRAT KHEL
9) FWC WALIABAD	WALI ABAD YAKATOOT	FWC DARMALUK	DARMALUK

Table showing the detail of community and different centers including, RHC, HMC and FWC in study area. In this connection, the map of study area with legends of both the district is shown below.



Location Map no-1

The map of NWFP and legends are showing the location of study area i.e. Peshawar and Kohat.

1.10.4 Reproductive Health and Population Profile in study area.

1. Peshawar

The population of Peshawar district has increased more than seven times since 1951. It was 2019 thousand in 1998 as compared to 391 thousand in 1951. The overall increase of 416.37 percent since then. The population of the district increased by 81.40 percent during 1981-1998 inter-census periods within 17 years, an average annual growth rate was 3.56 percent. If one peep into the future regarding population increase that was 37.92 percent and growth rate was 3.89 percent during 1972-81 within 8.46 years. During

1961-1972 (11.67 years) the increase was 52.55 percent and rate of growth was 3.70; given in Table No. 1.8, which indicated that population and inter-census increase of the district since 1951.

Table 1.8 Population and inter-census increase since 1951 of Peshawar

Description	1951	1961	1972	1981	1998
Population (In thousand)	391	529	807	1113	2019
Intercensus Increase(Percent)	-	35.29	52.55	37.92	81.40
Cumulative increase(Percent)	-	35.29	106.39	184.65	416.37
Average Annual growth Rate (Percent)	-	3.08	3.70	3.89	3.56

Source: District Census Report-1998.

The total area of the districts is 1257 square kilometers. The population density is 1606.3 persons per square kilometer in March 1998, and 917.4 persons per square kilometer have increased since 1981, given in table 1.8.

1.10.5 Population size, growth and distribution of Kohat:

The population of Kohat district has increased nearly four times since 1951. It was 562.64 thousand in 1998 as compared to 143.96 thousand in 1951, resulting an overall increase of 290.83 percent in the last 47 years period. The comparison of inter-census increase varies over time. The population of the district increased by 72.26 percent during 1981-1998, inter-census periods of seventeen years. An average annual growth rate of 3.25 percent. This increase was 23.50 percent and growth rate was 2.42 percent during 1972-81 in 8.46 years. During 1961-1972 the period of 11.67 years, the increase was 55.63 percent and growth rate was 3.70 percent shown in Table No.1.9 that indicated population and inter-census increase of the district since 1951.

Table 1.9. Population and inter-census increase since 1951 of Kohat

Description	1951	1961	1972	1981	1998
Population (In thousand)	143.96	169.94	264.47	326.62	562.64
Intercensal Increase (Percent)	-	18.05	55.63	23.50	72.26
Cumulative increase (Percent)	-	18.05	83.71	126.88	290.83
Average Annual growth Rate (Percent)	-	1.67	3.70	2.42	3.25

Source: DCR-1998.

The total area of the district Kohat is 2545 square kilometer with population density of 221 persons per square kilometer in March 1998, which was 141 people per square kilometer in 1981. It means intensity increased with high density with the passage of time.

1.10.6 Sex Ratio of Peshawar and Kohat:

Sex ratio is an important demographic indicator. The sex ratio of the district Peshawar and Kohat was computed in 1998 that was 110.76 and 111.6 respectively in both districts in 1981. The sex ratio varied in rural and urban areas i.e. 108.47 for rural, and 113.23 for urban Peshawar.

Whereas the sex ratio of the district Kohat was computed in 1998, which was 101.1 in 1998, and that was 105.2 in 1981. The sex ratio in rural and urban areas was 93.88 for rural and 123.57 for urban areas of Kohat, which indicated that the female proportion is higher in the rural areas as compared to urban areas, (DCR 98).

1.10.7 Age Structure:

According to 1998 census the population aged 65 years and above was 2.44 percent, and 51.49 percent of the population was of the working age group "(15-64 years). The dependency ratio was 94.22 percent in 1998. The age and dependency ratio for rural and urban areas was 106.02 and 83.16 percent respectively. The adult population at the age of 18 and below in the district was 47.97 percent. This percentage in rural and urban areas was 45.48 and 50.60 percent respectively. The population of Kohat below 15 years of age was 46.32 percent of the total population. The population of 65 years and above was 3.22 percent and 50.47 percent of the population was of the working age group (15-64 years), giving an age dependency ratio of 98.15 percent in the year 1998.

1.10.8 Female reproductive age:

Out of total female population, 45.21 percent was in childbearing ages i.e. 15 to 49 years that was relatively higher as compared to 1981, when it was 43.16 percent. Among the female in reproductive ages 31.30 percent were never married; 66.65 percent were currently married, 1.96 percent widowed, and 0.08 percent divorced. Thirty three point ninety eight percent of ever married women of child bearing age were found without any child 33.97 percent had six and more children, whereas 45.75 percent having 2 to 4 children, and 6.72 percent reported one child and 9.58 percent have 5 children. By comparing rural and urban differences it was observed that proportion of ever married females were higher in rural areas having six children and above. In contrast the population ever married females having four to five children in urban areas of Kohat. It

comprised of 45.06 percent child bearing ages i.e. 15 to 49 years which is relatively higher as compared to 1981 when it was 43.55 percent. Among the female in reproductive ages 27.99 percent were never married, 69.32 percent were currently married, 2.23 percent widowed and 0.46 percent divorced. Seven point forty three percent married women of child bearing age were found without any child, 35.57 percent have 6 and more children, 35.70 percent having 2 to 4 children, 11.84 percent have 5 children and 9.46 percent have reported one child is given in the table no 1.10.

Table 1.10 Age & sex composition in Peshawar and Kohat since 1998

Age group Urban areas	Peshawar			Kohat		
	Both Sexes	Male	Female	Both Sexes	Male	Female
Less than one year	2.23	2.17	2.30	1.99	1.91	2.09
Less than 5 years	14.25	13.79	14.76	12.45	11.76	13.31
Less than 10 year	29.36	28.54	30.30	26.01	24.62	27.74
Less than 15 year	43.12	42.05	44.33	39.38	37.21	42.07
18 years & above	50.60	51.77	49.27	53.68	55.80	51.06
21 years & above	42.53	44.14	40.70	45.67	47.10	43.90
15-49 years	48.08	48.52	47.59	51.07	53.40	48.12
15-64 years	54.60	55.42	53.67	57.90	60.10	55.18
65 years & above	2.28	2.52	2.01	2.72	2.69	2.75
Age dependency ratio	83.16	80.44	86.34	72.72	66.40	81.22

Source: District Census Report-1998.

At the end of discussion, the demographic trends are described in N.W.F.P.

1.10.9 Structure of Thesis:

Chapter first describe introduction of study, focusing on the rationale of the study; highlights the conceptual frame work used for the study. It examines variables and their association between different independent and dependent variables in a Model no1. Objectives of the study given at the chapter that determines the direction of thesis.

This chapter offers an overview of the reproductive health of women in both the urban centers of N.W.F.P. and establishment of health institutions, trained personnel in reproductive health centers in study areas. The provincial government has adopted different policies and strategies concerning the development of health institutions. These policies examined in brief.

The second chapter discusses review of the literature. It provides thorough knowledge of reproductive health of women, and the process of development of health system, different strategies that adopted from time to time for the improvement of health systems, and the inferences are being drawn from the past work in Pakistan. This chapter

also provides in depth knowledge of researches already conducted on this topic; attempt made to link this study with past efforts.

The chapter third related to study design including universe and population of the study. The methodology of data collection based on primary and secondary sources. Different steps described for improvement of the quality of data. For this purpose, different consideration has been made, including description about threats to validity of data. The sampling procedure and techniques were adopted for sample selection, field management for interviewers and interviewee, field experiences used for data collection, and later on about data analysis.

Chapter fourth related to focus group study, analysis of focus group discussion, inferences and findings from focus group discussion. This chapter deals with qualitative data. The survey results for quantitative analysis are given in chapter fifth. The chapter fifth discusses descriptive results concerning research study. In fact different aspects of women reproductive health are analyzed quantitatively in chapter fifth.

Chapter sixth describes relationship between dependent and independent variables in cross tables. The degree of relationship of Dependent variables measured through Chi Square and gamma values in bi-variate and multivariate tables. Socio-economic and cultural factors affecting women health related variables and perception of respondents regarding women reproductive health in particular discussed. The results of multivariate and bi-variate relation ship among the predictable variables with respect to response / dependent variable are also presented in this chapter.

Chapter seventh presents conclusion drawn for the study; summary and findings in the light of study objectives and the recommendations are given along with the suggestion for further research.

1.11. Rationale of the study:

Rapid and uncontrolled population growth in Pakistan has been a matter of concern. The deteriorating health of mothers, high rate of infant and maternal mortality and other social and economic problems caused by large family size need to be checked for the promotion of reproductive health.

The problem of reproductive health care is common in women. They are more vulnerable to health complications than men. The country's health policies and health care programs are inadequate and inefficient in addressing the health needs of women. Specially the area of reproductive health care is of vital importance to meet the growing health needs of children and women, which is not properly addressed and defined in

population and health policies. There were frequent attempts at developing health policies. While Pakistan has regularly been a signatory to the instruments such as the Nairobi Forward Looking Declaration signed in 1985, (Ministry of Women Development, 1998), which placed importance on women's empowerment, gender equality and equity, that is a rationale for the change of population and development policies for improving reproductive health as well achieving sustainable development. The policies have been consistently inadequate to address these socio-economic and health effects, initiatives and commitments to ensure the reproductive health needs of women.

In the existing social structure, where motherhood is upheld, and the fundamental right to find a family for women is a matter of life and death. Laws, social attitudes and traditional values which impair women's autonomy, reduce their rights to protect their lives and health, and those of their children' (International Planned Parenthood Federation, (1990). Social conservatism and cultural restrictions severely impair women's social, economic and health development. The Women's deprivation, poverty, economic dependency, lack of autonomy, husband's domination and inability to accept women's equality are factors creating many problems of health in the society. Customs and traditions of society deprive them, from their economic, political and cultural rights, to control over their own destiny. Without providing a better quality of life to women who are ignored, the goal of sustainable development can never be achieved. Our attitude to life and death are usually determined by our religious and cultural norms.

1.12 Conceptual framework of the study:

Inequality of women in global community remained one of the most significant factors responsible for impediments to the physical and mental well being of the society. Human development indicator showed greater disparity between the rich and the poor countries especially in demographic indicators like child and maternal mortality ratios. The high level of maternal mortality is a reflection of the poor health and lower social status of women. Women in the developing world in general have a high fertility, limited access to reproductive health facilities and high risk of dying of pregnancy related problems. Majority of these deaths can be prevented by well-known interventions, but regrettably, this did not happen.

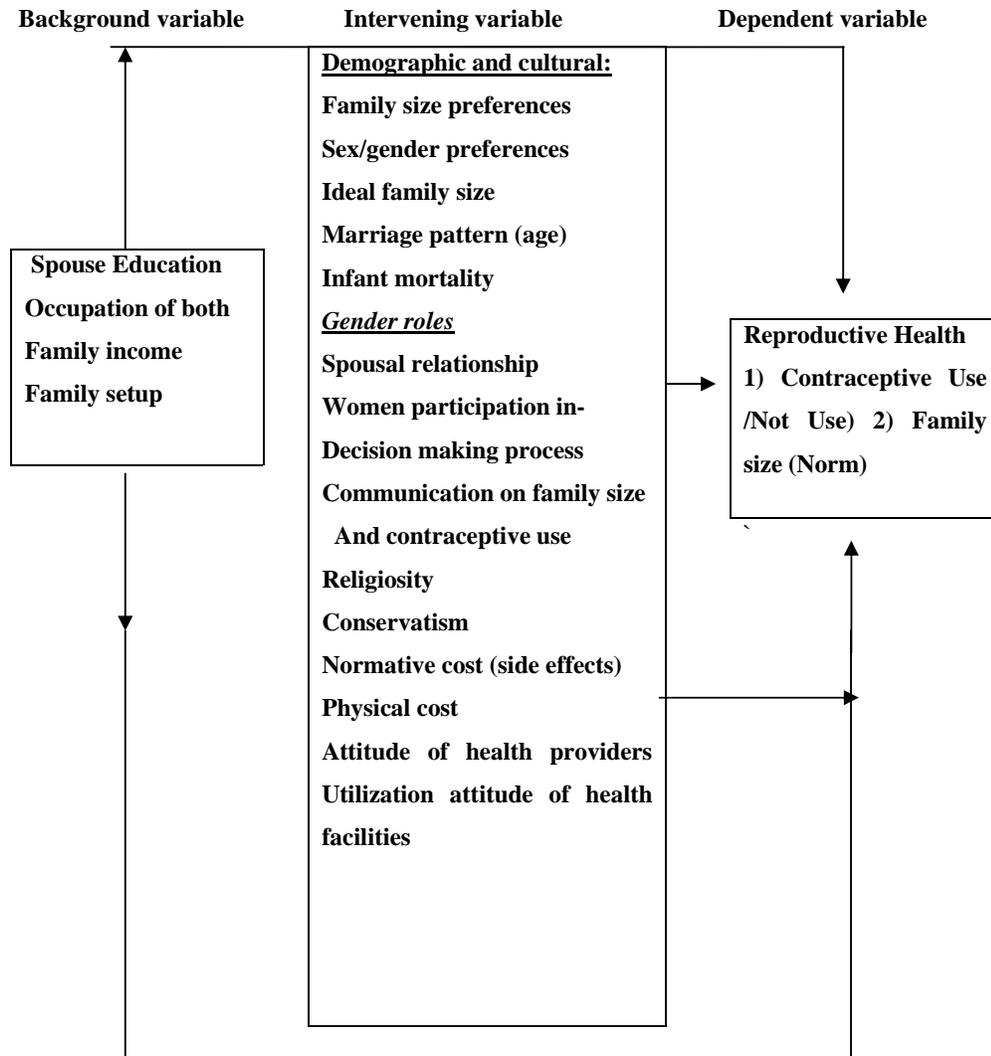
Health and economic development in a country cannot be separated. It is established that they go hand in hand worldwide. World Bank is the major global development lender to low and middle-income countries. A report of World Bank (1996)

categorically stated that women have more illness and disability than men. Women's poor health reflects gender bias, inadequate service and general poverty. These observations are more revealing when we look at the statistics on the issues of women's health in developing countries like Pakistan. Thus there is dire need for conducting research on women health; particularly reproductive health. For this purpose, the study has been conducted. In relation to the research, the conceptual framework is developed to conduct the study and to give it proper direction.

The conceptual framework gives propositions and provides explanation for many empirical observations; which could be either accepted or rejected. The study aimed at deriving certain results for the promotion of women reproductive health; the main theme could be accepted or rejected through conclusions, findings and discussion. The relationship of variable could give us valid results. The conceptual framework composed of three types of indicators, which are background, intervening (independent) and dependent variables. These have positive or negative, valid or invalid relationship that could direct the results of study. The detail of these variables is given as under:

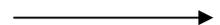
Figure-1.5A

**CONCEPTUAL FRAMEWORK SHOWING THE RELATIONSHIP BETWEEN PREDICTOR
AND RESPONSE VARIABLES**



a) Background variables

Socio- economic variables provide a description of the respondents selected for the study. The categories of socio-economic factors measured were spouse education, their family income, and family setup and spouse occupation. The above stated variables consists of socioeconomic and cultural status of a women .An educated and well-off women have better communication with her husband and better decisions are made regarding family size and health.



b) Intervening variables:

The conceptual frameworks also consist of demographic variables including sex preferences, ideal family size, and infant mortality and marriage pattern. The gender roles including, spousal relationship, women participation in decision-making and communication on contraceptives were discussed. Another important component of these variables was religiosity; conservatism and attitude of health providers toward women sickness.

c) Dependent variables

Lastly, reproductive health as dependent variable include, family size, the use or not of contraception has been culturally and socially been approved or not; and whether the response is positive or negative. Research study explores the attitude toward the size of family was due to use or not use of contraception of different strata, including occupational and income groups representing different classes.

In the light of above-mentioned conceptual framework (Bongarrt, 1997); the following objectives are designed to explore the different dimensions of women's reproductive health.

1.13 Objectives of the study:

1. To know the socio-economic characteristics of the respondents.
2. To explore the socio-cultural values about reproductive health.
3. To examine the association of socio-cultural value with reference to reproductive health.
4. To explore the respondents religious perception about R.H. (Reproductive health).
5. To identify the normative and physical cost of contraception and their affect on reproductive health.
6. To identify subset of relations among socio-economic, cultural and demographic variable which explain primarily the R.H. (Reproductive health).
7. To suggest measures to Govt. for enhancing the women status and improving reproductive health.

1.14 Summary:

The population of Pakistan stands at 140.5 million as of the figures for the year 2001 with a growth rate of 2.1 percent. Pakistani women have on average 4.3 children and less than 30% of women of reproductive age use a contraceptive method. Maternal

mortality is high. The growth rate of population is estimated around 2.1% per annum but 1.9 in 1998.

With this record, Pakistan is ranked as the sixth most populous country in the world and the second largest Muslim nation. But where numbers are concerned, all big numbers are not beautiful. There are 1,529 patients for just one doctor; 33,629 patients for just one dentist; and 3,732 patients for one nurse. Just imagine what a rising population could be doing right now to further aggravate the crisis. And with an average household size of 6.6 persons and a population density of 164 - persons/sq. km, these are the grim realities that Pakistan in its 54-year existence is facing right now.

"Majority of women in Peshawar and Kohat urban areas do not have access to services quality of health at governmental level" says (MISC 2001-02) report, and majority of population living in urban centers have deficient reproductive health services. Many people do not have access to family planning services and awareness is also limited. All this is also an issue because of lack of political will on the part of successive governments. Besides, a cultural shift during the 1990s from the bonds of extended family to the autonomy of the couple is also a factor as many couples have migrated from rural to urban areas, weakening these family ties. Reflecting these societal changes, the ideal family size has shrunk during the 1991 to 3.6 children in 1995.

The MICS survey (2001-02), NWFP reveals and discuss information regarding reproductive health include current use of contraception was reported as 31% of married woman, both in rural and urban. This varied by urban by 46% in urban Peshawar and 42% in urban Kohat. The most popular modern method injection used 19% of couple followed by pill in 15%, female sterilization in 13%, a condom in 8%, and IUD in 8%, traditional methods like breast feeding and abstinence is 18%, and 10% respectively. It is concluded from the discussion that reproductive health trend has been improving with passage of time. Urban centers of the province are pioneer of social change in this direction in the present survey.

In the light of above mentioned research theses and studies; the factual position for the use of contraception was important for the control of family size, when it is adopted on the basis of health grounds as a precautionary measure or on the basis of individual circumstances which was adopted in terms social, economic and cultural perspective.

2.1 Introduction:

Reproductive health problems have been recognized with the development and change in social, economic and cultural structure at global level. References elaborate different approaches relating to reproductive health problems; discussed within socioeconomic and cultural context. The international community regards reproductive health as a basic human right. To exercise this right within the social and cultural limits, the people must have access to complete reproductive health information and services. So they could make free and informed choices; ultimately control over family size, and more use of contraception resulting to check tremendous growth of population. A massive increase in population is the root cause of women reproductive health.

Population multiplies highly in low-income groups. One can find families with more children than they could afford. It is not enough to give birth to children; but more important is having the exact number of children, which could be two to three in number, and most important factor is how soon, or how late to have the second child, and what should be the gap; if a family wants to have the third or the last child? The important preference in the low socio-economic status groups is having a male offspring. So, what the poor, ignorant, low educated or literate couples do? Try, try, try to end up with a women's cricket or football team, damaging the health of mother and child. One was earning member, the father who has to support the big family. Besides fertility rate, the level of crude death rate (CDR) is also an important factor influencing the size of population in a country. Increasing population refers to the phenomenon of birth rate exceeding death rate. In Pakistan, while birthrate keeps spiraling. Death rate has considerably declined which in turn has given rise to the specter of population boom. The estimated CDR in Pakistan currently figures around 10.0 per thousand, which has gone down from 31.2 per thousand in 1941. In addition, to this and important indicator of death of a child is infant mortality rate (IMR) which at present is 84 per thousand in Pakistan. Unfortunately, the rate of mortality among infants has been on rise in Pakistan. Hence, infant mortality rate is an index of low socio-economic state of development. The

government of Pakistan launched vigorous campaign to reduce infant and child mortality, which will result in further lowering of the crude death rate.

2.2 Ages of Respondents:

Age at marriage is one of the important factors effecting family size. The consequences of early marriages have dominant effect on population growth. Even though early fatherhood may enhance a young man's social status in some societies, boys who become fathers early also may lose opportunities for education or future economic advancement. Those who marry may leave school to support their new families. Researchers have started examining the impact of adolescent fatherhood on young men in developed countries. Little information is available from developing Countries.

Nagi (1983) explored the effect of demographic factors on reproductive health and fertility. He viewed that age at marriage has substantial effect on fertility in Muslim countries as compared with non-Muslim countries, ultimately affecting on health of women. He pointed out that in the Muslim countries when the age at marriages increased the fertility level decreased. He also viewed the significance of family planning program regarding fertility differentials. His analysis showed that countries, with strong family planning program and political commitment in achieving desired population goal, had lower fertility than the countries having weak family planning program and poor political commitment.

UNICEF, (2001) report revealed age at marriage is an important factor in child bearing. Global estimates suggested that girls aged 15-19 are twice as likely to die from childbirth compared with women in their twenties, while girls younger than age 15 face a risk that is five times as great. Indeed, more adolescent's girls at early age die from pregnancy – related causes than from any other cause (PRB, 2000).

Kleinman and Meekers (2002) endorse the idea by, Aten *et al.* (1996) that; the young people often do not seek information or care, because they believe that they are at little or no risk of health problems; Those who do often face various geographic, social, cultural, and economic obstacles due to early child bearing. Young people may be unaware of their risk of pregnancy, unfamiliar with STI symptoms, and unsure where to obtain services and what of services are offered.

Dyson and Moore (1983) stated that arranged marriages, dowries, early age at marriage, social segregation of sexes, limited spousal communication and sex preference are the determinants of high fertility effecting reproductive health of women. All these factors are related with the status of women and role change. They added that by restricting women's physical movement, limiting their education and failing to provide them social support for birth control, encouraging women to produce male heirs are major constraints in achieving desired population targets in developing countries. In present age women are reluctant to adopt such course of action that is total misconceived and blind in its character.

A study conducted by (Zafar, 2001) revealed that engagement in family life at little age was an important factor in high fertility, which represents the current behavior of reproduction in Pakistan. Beside the age of women who got married in early age; the age of husband also play an important role in family size. Large family size indicated that early marriages of me are leading toward a large family size. When the age at marriage is low that would lead toward high fertility in family. The study conducted by (Zafar, 2001) indicated that, the age specific interest of man marriages at younger ages also an important factor of high fertility in Pakistan.

Demographic health survey,(1998-1999), found that nearly 15 per cent of ever-married adolescent women were stunted, and about one fifth had moderate to severe anemia with poor nutrition. The adverse health consequences of poor nutrition due to low income, poverty and early childbearing can include damage to the reproductive tract infection, maternal mortality, pregnancy complications, prenatal and neonatal mortality and low birth weight.

Mehmood, (2003) viewed that the initial decline in fertility and ultimately affecting on reproductive health were attributed to increase in age at marriage and gradual social and economic change, coupled with urbanization and modernization.

It is general belief in traditional societies and culture that young age marriages are more benefiting than relatively old age; medical reports by (WHO1999) prove that more linear motility of spermatozoa, and also high count of sperms in young men is higher than aged persons, therefore young marriages are highly preferred in such culture. Fertility

assessment requires requirement of few factors including age of male as an important factor.

2.3 Educational attainment of woman:

Ganguly *et al.* (1987) made a cross-sectional survey on 265 pre-school children to examine whether exposure to malnutrition depends on age, sex, birth order of the child, socioeconomic status of the guardian literacy status of mother and family size by assuming exposure probabilities to follow binary logistic regression model and the adequacy of fitness of model was tested. Literacy status of the mother was the pivotal factor; the other factors did not play any significant role in increasing the risk of malnutrition among the children. They argued the suitability of the logistic regression model to examine malnutrition among children.

Education plays important role in behavior formation e.g. adaptation, goal attainment, integration and latent pattern maintenance in a system of culture that is learned and shared through social behavioral system. Human beings have capacity to communicate his learning in form of experiences to others in every field of life.

Ahmad (1981) conducted a study in Matlab Thana, Comilla a rural area in central Bangladesh on family size and sex preferences among women, who were not educated in rural Bangladesh. The study found that a large majority i.e. 82 percent of the women indicated high sex preferences and large family size.

Casterline (1984) pointed out; by using the Pakistan Fertility Survey data that educational attainment of women was associated with number of children_ever born. The negative effect was larger for those who proceed beyond primary education. The differentials among the educational strata were massive for fertility measures. He also found that better educated husbands like to have more educated wives.

Sathar (1984) argued that more than nine years of schooling of females was associated with fertility decline and the level of female education is negatively associated. It also varies from society to society and higher level of education may induce fertility decline.

Kabeer, (1985) found that in the paradoxical situation of choosing or feelings unable to refuse to risk their own well being as part of a survival strategy for themselves and their families.

Freedman (1987) viewed that the relation of education to reproductive health becomes attenuated when other socio-economic variables are controlled. He argued that education might be considered as a broad socioeconomic indicator. They also found high birth intervals among the children of mothers who were educated than the mothers who were illiterate. It also reflected from the study that high birth intervals has also important factor of children nutritional level.

Arif (2000) discussed that rise in poverty in Pakistan effected the household to enroll children in school. He finds a large gap in school enrolment health status access to health facilities and housing conditions.

Durrant (2000) has conducted comprehensive survey on health, education, work, marriage and child bearing of adolescents in Pakistan. She argued that the demand for children and adolescence work in household inhibit their ability to attend school and perform well in school.

Freedman (1987) concluded the negative relationship varies in degree and direction i.e. status and family size are inversely related. The net effect of education on reproductive health by controlling other variables, e.g., income, residence, occupation, family planning practices etc, vary substantially within country and between countries. The reasons for such variation were mainly defined in cultural variation.

Isiugo-Abanihe (1994) revealed that the factors influencing men's reproductive intentions were considered important for fertility transition in Nigeria. Male education, age at marriage, monogamy, inter-spousal communication, and intention not to rely on children for old age support were significantly related to smaller actual size and preference for smaller families. The factor of mother education was the important predictor in explaining family size.

Farooqui (1994) suggests that urban dwellers, residence, level of education and exposure to mass media increases the likelihood of improvement in small family size and use of contraception leading towards better woman maternal health

Courbage (1994) examined the affect of social factors in terms of woman's educational on reproductive behavior in Morocco. He found that each year of female education had a greater impact on rate of contraceptive use rose dramatically with increasing education.

Zafar *et al.* (1995) argued the significance of cultural factors in influencing fertility and contraceptive behavior. The study indicated the importance of social forces such as education of both spouses, age at marriage, family size, sex preference, beliefs and values regarding family life in predicting fertility and contraceptive behavior in Pakistan.

Fayza, (2003) disclosed that the literacy of husband play important role in the determinant of fertility, the literate husband practices small family norms. A number of studies have been conducted at different locality on different occasions in Pakistan, which has analyzed that husband age factor is main determinant of fertility. The research concluded that the determinant of fertility agrees with the lowering effect of increased education in males on the fertility rates. Men with more education tend to have smaller families due to more awareness about the problems in large families problems of mother and child, and also of income and employment,

2.4 Occupation and Economic Status:

Sarwat, *et al.*, (2003) revealed that occupation of the respondent plays a pivotal role in fertility regulation and reproductive health of women in households. Changes in economic status women in households lead to changes in fertility behavior. Low socio-economic conditions like unemployment of women increase the burden of expenditure. Low income households have more members and more young children, with high dependency ratio which reflects high fertility rate, as a result majority of them in poor conditions.

Petchesky; (1986) and Gordon, (1976), described social class and occupation as an important factor in birth control; the importance of social class as an important factor in birth control behavior was evident in both in the developing and developed world like the United Kingdom and the United States at the turn of century. In developed countries powerful interests were pushing for eugenic policies designed to control the "breeding" of working-class women, especially in the slum areas of the big cities.

Uhlmann, (2004) reveals in this paper and traces the effective gender roles regarding occupation i.e. division of labor. The informants were both males and females, and change in sex roles was discussed; it was discussed that how decisions were made and how labor in family should be divided. The important point raised in the research was

related to the patriarchy and egalitarianism actually exhausts the difference of attitude that exists in family system. The highlighted point was related to rationale of division of labor in different context. The role changed with passage of time, the wives some times were bread winners; when asked about the role in family, women preferred maternity over paternity; the natural role mothers play.

Multiple Indicator Cluster Survey, (2002) conducted in the Frontier province provided concrete proof concerning the participation of women in occupational activities or labor force activities result in decline in fertility is clear and recognized by all researchers. As women become earner and job-full, three things happen with which reduction in fertility takes place. Income was a unique indicator, considered as an essential to assess economic situation in the province. The pattern of income distribution by different sources is different etc.

2.5 Family Income and residence:

Caldwell (1976); discussed, the applicability of economic decision theories in understanding the fertility transition has been criticized by many social scientists on the basis of the fact that beside locality and type of residence, with high income fertility decisions are adversely effected, because, in every culture, people have interests in type house other than economic well-being and income of spouse.

Easterlin (1986) central thesis was related to economic models that support advancement in economic realities to understand reproductive health behavior. These models have been a source of inspiration to many population scientists. The discussion revealed that many decision-making styles are habitual and characterized by a culture economy of family. The economic level varies within and between societies. Hence, decision-making processes and patterns vary within and between societies, and from those that prevailed in the past. Variations in decision styles from the past depend upon the degree and speed of assimilation of a new code of behavior. The overall decision sequence can act to counterbalance change resulting from the introduction of new alternatives under the light of income and explained how the decision styles change due to the assimilation of a new code of behavior. The author argued, that social pressures against a particular set of decisions grows, tension develops in the decision-making pattern. Women may continue to behave in accordance with the common pattern in spite

of this tension, because of the strength of the overall logic of the sequence, the whole structure of decision-making changed. This led to the point that the decision making process was changing and shifting from collectivism to individualism.

Sather (1988) viewed that women status was an important determinant of fertility. She pointed out that, those Pakistani women who has been enjoying good status have lower fertility as compared to the women belonged to the poor socio-economic status.

Kabir *et al.* (1989) described that the role and status of women of the success of population program. He argued that fertility depends upon socio-economic factors that affect women's choice of contraception in rural Bangladesh. He applied logistic regression analysis to know husband-wife socio-economic status, and communication on family affairs, contact with family planning workers and female education were associated with the family size and adoption of contraceptive methods and family planning program.

2.6 Culture and reproductive health:

Carr-Saunders (1922) put forward the theory that cultural factors, i.e. large sons and daughters influence on reproductive behavior and fertility. After reviewing a bulk of anthropological literature about societies at different parts of the world, the author concluded that evolution of human culture brought a universal tendency towards the maintenance of an 'optimum' level of population in the pre-transitional societies. The author stressed that an optimum level of population maintained for the environment through customs and actions. People practiced pre-puberty sexual intercourse, prolonged lactation, war, and negligence in the care of children to reduce the pressure of population on resources.

Carr-Saunders also pointed out that people practiced abortion, infanticide, and abstinence to keep population under control.

The author also noted that abortion and infanticide were practiced in Australia, the Arctic, and some Pacific areas under stress of necessity. Whereas, in Africa, the abstention from sexual relations with nursing women was commonly practiced to control family size.

Carr-Saunders named this action as "Semi-conscious adjustment of number". To control increasing number of children leading to a large family size.

Notestein (1945) offered an explanation of high fertility in the context of high mortality supported by the cultural system (Belief system) – adjusting the numbers to changing fortunes, which means total reliance on fate and destiny. It is related with orthodox behavior of society, such societies have conservative outlook, and think it very natural.

Ford (1945) also pointed out the importance of cultural factors for having children. He stated that although human reproduction is a biological phenomenon, it is supported by a belief system. Childbearing is not a charming experience. Bitter experience of gestation and labor pain, risk of stillbirth, chance of death of mother and baby, rearing and looking after children and problems associated with childbearing. The author states that desire for children is not the natural drive, but it is reinforced by the social system through rewards and punishment.

Cleland, (1985) & Hull (1983, p.391) explained how the decision styles change due to the assimilation of a new code of behavior. The author argued that “as social pressures against a particular set of decisions grows, tension develops in the decision making pattern. Women may continue to behave in accordance with the common pattern in spite of this tension, because of the strength of the overall logic of the sequence. When a new factor like safe, efficient contraception is introduced, this tension is stressed, and the whole structure of decision making can change.” This led to the point that the decision making process is changing and shifting from collectivism (Simon, 1986; Turke, 1991). The massive fertility decline in Europe during the 19th century and the recent fertility decline in many developing countries e.g. Thailand, Indonesia, etc. is sample evidence of Cultural Revolution.

Haq *et al.* (1989) examined the association between socio-economic and demographic factors, such as, family size and sex preferences among the women of rural Pakistan. The study revealed that family size and sex preferences cause high fertility and low contraceptive use in Pakistan and the demographic phenomena in terms of family size and sex preferences are defined within the socio-economic framework.

Akhtar (2002) disclosed that fear; shame and lack of resources inhibit adolescents from seeking safe and early abortions on one hand and from seeking care when complications occur on the other. Research in selected areas of Bangladesh found that

while adolescents constitutes 9 per cent of those who received menstrual regulation services, they constituted 15 per cent of those turned away because they sought services too late in their pregnancy.

Ahmad et al. (1998) used the demographic surveillance which has been maintained by an agency since 1966, provided the information for the treatment and comparison areas on pregnancy outcome, live birth, miss carriage, induced abortion, still birth, deaths, migrations and marriages. They applied logistic regression model and compared odds ratios for induced abortion, miss carriage and stillbirth by explanatory variables. They found that the incidence of abortion is higher among women who had six or more births and became pregnant before 12 months after the previous pregnancy with low degree relation. They found large family size as an important indicator of women's reproductive health

Clelland and Verrall (1983) found that in some countries, for instance, Bangladesh, Nepal, Pakistan, South Korea, Jordan women who lacked sons was found to desire more children. In other countries also, for instance, Indonesia, Philippine and Sri Lanka, women with a preference of either sons or daughters were in favor of wanting more children

Zafar (1993) studied the sex preference and its influence on fertility in Pakistan. He found strong preference for boys over girls and defined it within the socio-economic and cultural dimension of families. Strong preference was found among families with poor socio-economic conditions and traditional thinking towards family life. He also found the relation between sex preference, family size and contraceptive use. Higher level of contraceptive use and lower fertility were found among women with preference for boys.

Devin. D. (1987.p.121) disclosed that despite some regional variations, the policy regarding the use of contraception was vigorously implemented across the country and there have been consistent reports of coercive sterilizations and abortions, with some of the latter done at a very late stage. There are many problems engendered by this one child policy have been exacerbated by the continuing son preference; which has help cultural and material roots in Chinese's society. If a couple's only authorized child a girl, the mother in particular has often come under extreme pressure and cases of female

infanticide have been documented in India due to such steps i.e. use of contraception strictly.

2.7 Infant mortality and reproductive health:

Hartman, (1987, p.9) revealed that high infant mortality means that parents cannot be sure that their children will survive to contribute to the family economy and to take care of them in their old age. The poor are thus caught in a death trap. They have to keep producing children in order that some will survive. Decisions of this kind are usually represented as belonging to “couples’ or households, but it is significant that most are made in the context of gender inequality.

Nadeem, (2001), disclosed in a study that demographic factors in Pakistan has been dominantly affecting reproductive health of women including high fertility, migration and high crude birth and death rate etc. Population growth in different countries is determined by three important factors, which are, fertility, morality and migration. Developing countries have high fertility rate.

United Nation, (2000) launched five-year review of the Program of Action showed important achievements made in improving reproductive health. The rising use of family planning methods indicates that there is greater accessibility to family planning and, more couples and individuals are able to choose the number, and spacing of their children

A very important hypothesis in this study contends that short birth intervals do not allow a mother enough time to restore her nutritional reserve after childbirth and breast-feeding. Although the role-or even the existence- of maternal depletion syndrome is not yet settled, recent studies confirm that short intervals affect mother’s energy, weight, and body mass index. A mother’s poor nutrition in turn affects fetal nutrition, growth and thus leads to infant mortality. Some studies found that shorter intervals are associated with an increased risk of premature birth, which has serious implications on women reproductive health including delivery and fetal growth retardation, which result in low-birth weight babies, who are at greater risk of dying in infancy.

UNICEF (2002), report stated that South Asian countries have high fertility ratio, therefore, many health problems have been emerging and multiplying with passage of time. Pakistan being one of them was no exception. A glance at population statistics

reveals that after Maldives, Bhutan and Pakistan has the highest fertility rate with large family size, more sex preference and little age at marriage in the whole of South Asia. At present, the crude birth rate (CBR) was estimated by UN stands at 38.9 per thousand; whereas the total fertility rate (TFR) in Pakistan was around 5.5 per woman. The prevailing fertility conditions in Pakistan are indeed alarmingly high even exceeding those in Bangladesh. The currently estimated CBR in Bangladesh figures around 26.8, while the TFR stands at 3.8. It is indeed amazing that Bangladesh, which was East Pakistan in 1961, shared with Pakistan population growth rate of 3 per cent, but declared growth rate of 2.3 per cent at the time of its independence. The current annual population growth rate in Bangladesh is 1.9 per cent, which is a remarkable achievement in controlling the size of population.

2.8 Status of women in role relationship and reproductive health:

Fort (1989) discussed the characteristics of low status of women and performance of role, effecting on the fertility and the use methods of family planning. He found that in Peru births were inevitable because women were believed that their husbands would leave them if they did not bear the children soon after the union. The women's prime duty is to bear and rear the children and childless women are not respected by the society. Infertile women face great frustration and their marriage lives are always in danger and unstable. Husband wife relationship was not good because incident of wife beating was common in Peru. It is common belief in Peru that women who had male children were considered sincere to their husbands and women who used contraception were thought to be unfaithful to their husbands. All these characteristics determine the status of women and male domination in Peruvian society and eventually inclined to low use of contraception.

WHO, (1981) in one of the study three quarters of Hindu women said that they avoided cooking meals when menstruating because of adverse effect on health and many said that they needed to rest more often. That is a norm in Indian Hindu culture. At the time of sickness; they were reluctant to perform domestic role in domestic affairs.

2.9 Woman participation in decision-making:

Shah (1986) disclosed that women in Pakistan have little say in family decision-making. Men usually make decision about marriage, education, employment and health

care for the women and not by the women themselves that is due to cultural factors. Khalifa. (1988), described dynamics of demographic decision making is based upon, the barriers women face in meeting their desire for safe and effective contraception are many. For some the struggle begins at home if their partners are resistant. Thus far there have been few formal studies of demographic decision making within limits, but it is clear that many men play a dominant role. Recent research in rural Peru concluded that partners often have the last word in choices about reproduction and contraception.

Maynard-Tucker, (1989), A similar study in Khartoum found that 54 percent of Sudanese men believed that family planning should be the husband's decision alone. It means that women are not free to make decisions regarding number of children and use of contraception.

Harden. (1992), Disclosed the social, cultural and biological suitability of contraceptives that there cannot be a single, perfect contraceptive suitable for all biological social and cultural circumstances. However many women still cannot find a method that is more than minimally acceptable. While the number using contraception has been dramatically, the "drop-out" rate for individual methods remains high and many women feel obliged to adopt techniques that Prevent pregnancy but do not meet their wider needs. Boxed into a no-win situation between unwanted childbirth and less than perfect contraception, they choose to endure "side effects" that seriously threatened their well-being.

Doyal, (1995) opined that women's health is mostly disturbed by cultural factors that creates more vulnerability toward sicknesses; mainly their pattern of life, deprivation in decisions making in important matters that prevent them optimizing their health.

2.10 Gender Role and Relationship:

Illys et al (1997,) studied various Pakistani communities with different socio economic status living in rural and urban areas of Karachi, like Pushtuns, Baluchis, Punjabis, Sindhi and Mohajir, the sample comprise 129 rural and 103 urban, their socio economic status and health behavior, concludes that there were significant difference of practicing behavior between the urban and rural household; urban culture due to urbanization has dominant effect on their health beliefs; regarding their number of

children, place of delivery, contraception practice, mothers feeding behavior and registration of their child with zonal municipal office.

Zafar *et al.* (1997) examined the influence of women's autonomy on reproductive health. They measured women autonomy in terms of women involvement in socio-economic and social activities, women participation in the decision making process are the important indicators of women autonomy and has bearing upon reproductive health in terms of number of children ever born.

2.11 Contraceptive use behavior pattern of spouse:

Pollack (1985.p.71)"presents the same opinion about the behavior pattern of the husbands about the use of contraception that how much husband's dislikes the act of using the contraception. It was acknowledged by narrating the statement by husband, that he was not happy with the act of her spouse about the use of pills in Chinese society.

Smith et al, (1985), discussed differences in the health risks of male and female sterilization were marked. The mortality rate for women is about five times greater than that for men and the risk of long-term morbidity is also much higher for women with the use of contraception.

Holock, S. (1987) disclosed the relationship between hormonal contraception and the incidence of different types of cancer, for instance, which has been especially difficult to assess, given the long latency period before the cancers could be expected to develop. However, some health effects of the "pill" began to emerge very quickly.

Fuentes, A. (1987.p.14) disclosed that in Puerto Rico sterilization and immigration control were the major planks of population policy in the early 1960s. Huge numbers of women had operation, often without understanding the consequences and many have tried unsuccessfully to get the process reserved. Today the proportion of women in Puerto Rico who are sterilized is said to be 45 percent, the highest in the world.

Warren, M. (1987, p.22) disclosed about contraceptive revolution that a woman who will examine use if necessary and keep it secret should also explain it. It should also cost very little money". At present such options are available to only a small minority of women, most of them living in developed countries, and it is unclear whether the means will be found to develop the fund, improved techniques, and services on a global scale. If the "contraceptive revolution" was born in the 1960s it now seems to have run around

and, as well shall see one of the most basic health needs of millions of women remains unmet.

Royston and Armstrong's (1989, p.191) research undertaken by the World Fertility Survey, on the relationship between contraceptive use and family size investigated the relationship between contraceptive uses and desired family size.

WFS recent data suggest that in most of the countries beside Latin American countries women want to have only two or three children but average family size is still five or six. For example, Bangladesh too, the fertility rate was twice what women say and they desire due to the little use of contraception because of cultural constraints. Bruce, (1987.p.362) and Hartman, (1987, p.100) elaborated the reasons for this bias in development activities. They reflect in part our relative lack of knowledge about the male reproductive system compared with that of women who have long been the objects of more intensive "clinical gaze". Moreover, women are fertile for only a short period, and there are more possible points of intervention during their reproductive cycle. However it would also appear that male researcher have been particularly sensitive to the possible side effects of any contraceptive for men, especially as it might affect their potency or libido: "One sense that where sex was opposed to reproduction is at issue, the male of the species is still regarded by a patriarchal culture. Therefore the use of medicine for females is the delicate and they are vulnerable one' (Petchesky, 1986, p.173).

Fuentes, (1987.p.15) viewed that according to Digma Satche of the New York Committee on Hispanic Children and Families. Sterilization is an easier solution than finding jobs, better education, affordable housing. Women feel life is so difficult why not get sterilized.

Asian and Pacific Women's Resource Collection Network (1989,p.75), disclosed about the women desperation to feed their families, women in the arid, Western Indian state of Rajasthan have been agreeing to sterilization often without telling their husbands in return for 2,000 rupees of famine relief. It was the women who trooped in for the operation because they were desperate for money to feed their children; and for any opportunity to halt the endless cycle of childbearing. Now, many have been sterilized but few have received the promised cash.

2.12 Communication on family matters and reproductive health:

Turke (1991) and Hess (1988) discuss the vital role of culture and further elaborates that culture plays a vital role in every walk of life. People run their everyday life and the influence of principles of culture. Matters like childbearing, desire for male children, acceptance or rejection of family planning are also guided by culture. Culture offers the effects of education, status of women, communication, and family planning activities regarding reproductive health. Even in identical socio-economic conditions, significant differentials are presented, indicating the effect of culture (Hess1988).

Shah, (1986) data from national impact survey, found that inter spousal communication are factors in using of contraception. Ahmad *et al.* (1991) revealed that family planning program has not achieved uniform success in motivating both the rural and the urban population toward small family **norms**. Urban respondents showed greater knowledge and usage of contraceptive methods than did rural inhabitants. Urban attitudes towards family planning were favorite because of higher level of education and better communication between spouse and exposure to mass media such as newspapers radio.

Vu Quy Nhan, (1996), Gao, (1998); and Kwon and others, (1999); Levels of induced abortion are difficult to measure; however, estimates suggest that between 1 million and 4.4 million women under age 20 undergo abortions in developing countries each year due to better communication between couple, which is favorite decision for them (McCauley and Salter, 1995).

Khan (1989.p.262) discussed sterilization the most popular method worldwide for preventing pregnancy. Male sterilization is both cheaper and easier than its female equivalent since the surgery required is less invasive and can be done easily under local anesthetic. However, about 70 percent of all sterilizations are performed on women with better communication of spouse. Though the newer mini laparotomy has a relatively low complication rate, the problems associated with female sterilization continue to be significant, especially under the less than ideal surgical conditions found in many parts of the third world.

Pollack. (1985.p.72) discussed about the use of contraceptives and gave the opinion regarding women, that how their husbands perceive about them. She described about the behavior of her husband” “he didn’t like it one bit when I was having him uses

the sheath, he prefers to damage my health and force me to use pills,” he doesn’t have to worry about my health”. She further elaborates that the whole has been developing due to lack of communication. He reckons it the sheath spoils all the fun relatively few attempts have been made to develop new methods of contraception for men and less than 5 percent of research budget are currently devoted to the task.

Lincoln and Kaeser. (1988) proposed; the pills and the intrauterine device, together provided the basis for the global spread of contraception a massive international exercise that had a major impact on the lives of many women. “We would gladly accept family planning provided that it doesn’t interfere with our work, do us any permanent harm or be against our religion.

Bruce, (1987.p.362) has pointed out; those women’s bodies are usually the vehicles through which modern contraceptive services are delivered to communities. Until the early 1960s male methods of fertility control were used more frequently than female methods, but the “contraceptive revolution” shifted the emphasis dramatically in the direction of women with the rational acceptance of female to make contraceptive use rising to 2.7:1 in the mid 1980s (ibid.p.343) through better communication of different community based originations. Worldwide about 340 million out of 880 million married couples of reproductive age now use a modern method of contraception.

Mauldin and Segal, (1988, p.341) give comparison between men and women about the use of contraception and disclose, that the vast majority of the women who use contraceptives are 155 million rely on sterilization but it is the woman who has been sterilized in; two thirds of these, i.e. 80 million use the IUD, and 61 million use hormonal methods. Only about 38 million men use condoms, despite their acknowledged safety, efficacy and potential for preventing sexually transmitted diseases because they are motivated to act upon husband advice, indicating the importance of communication of spouse in addressing the reproductive health issues.

Sundari Ravindran, (1993) disclosed the values formulation regarding use of contraception in a family was the agenda with clear methods especially in India, where collaboration with the government produced national, push, against pregnancy. For millions of women these’ population controllers, did open up access to contraception. However the services were usually applied with little sensitivity to different culture

context and frequently abused the rights of both women and men. Success was evaluated only in terms of numbers accepting contraception, with little concern for women's satisfaction or for the long-term effects on their health.

Cook and Maine (1987) reveals that in some countries a husband's power over his wife's ability to use contraceptives i.e. dominant role, a husband has to play in family decisions in form of laws and regulations. The Family Guidance Association of Ethiopia had a requirement until 1982, that a husband's signed consent was required for his wife to obtain contraceptives. As a result 16 percent of the women who requested them were turned away because they did not have such an authorization. When the requirement for spousal consent was removed from clinic, then a rush was noted. The law bans the sale of contraceptives to a married woman without her husband's authorization. While in Niger the government clinics gave women contraceptives only with spousal consent (ibid.p.340).

Sathar and Kazi (1997) found that discussion between spouse about family planning was most likely to predict contraceptive use.

A study based on qualitative investigation into withdrawal suggests that among withdrawal users at least communication and discussion and communication between spouse is highly considerable.(Ministry of population welfare and population council,1998).

2.13 Women participation and reproductive health:

Bareer. (1993), reveals that there are clear circumstances under which family size needs in Pakistan is subject to some element of social negotiation. However, it is essential that women participation at least equally with men in the formulation and implementation of appropriate strategies. Though the Chinese and Romanian cases are very different, both illustrate the dangers involved in putting what is perceived as the collective good before the interests of individual women. This is not to suggest that it is never appropriate for societies to have demographic policies

Correa and Petchesky, (1994) and Dixon-Muller, (1993), described and disclosed the causes of sickness of women ; if women are to maximize their health and their autonomy, they must be able to determine the nature of their reproductive lives. If they have sex with men, they must have the means to enjoy it without fear of infection or

unwanted pregnancy, they must be able to control their own fertility without risking unpleasant or dangerous side effects, and they must be able to pass safely through pregnancy and childbirth to raise healthy children.

WHO (2002,) presented and suggested some of the variables in the study, which address estimation of actual and preferred intervals because they serve as powerful tools in research, programming, and advocacy and recommends as under:

Since couples' decision about birth spacing are influenced by their individual situations and desires, and not just by the health benefits of longer intervals, new messages that inform couples that 3 to 5 year birth intervals are optimal need to be sensitive to their preferences.

Chabot Jennifer M et al (2004) discuss and revealed about the decision on parenthood through donor insemination; decision-making is a key component of helping families to adopt their environment. Decision-making is defined as the process of making a choice between two or more alternative and then involves negotiation with other.

Decision-making is an integral part of the process that lesbian couples use as they negotiate their path to parenthood, and the decision to parent is multi layered and complex.

Martin (1993) discussed the thoroughness of decision making about parenthood and responsibility of exploring all of concern involved including those to whom they turn for support and affirmation. Different questions are posed as and when they plan for parenthood. For example, what institutional i.e. family, societal, and personal support mechanism influenced the decision making process. In addition several donor decisions are made, including whether to choose known or un-known donor.

Nawar (1994) investigated the relationship between female autonomy among Egyptian women and fertility. He found that the Egyptian women appear remarkably dependent on their spouses with respect to family decisions, but they have a strong voice in particular decisions of most relevance to them such as family planning and fertility. In almost every area of decision-making, autonomy was highest among urban women who had higher level of education and greater degree of economic independence.

United Nations, (1995, Para. 7.3) gave clear directions and also propounded a holistic approach to reproductive health, which was articulated to enable people to exercise informed choices and make responsible decision. The ICPD Program of Action states: “These rights rest on the recognition of the basic right of all couples and individuals to decide freely and responsibility the number spacing and timing of their children and to have the information and means to do so, and the right to attain the highest standard of sexual and reproductive health. It also includes their right to make decisions concerning reproduction free of discrimination, coercion and violence, as expressed in human rights documents.

Barnett (1997) discloses, adolescents may also fear contraceptives’ side effects, a worry compounded by ignorance about their bodies and how contraceptives work. Some young people, particularly girls, must seek permission from the parents or spouse before they can access reproductive health services. Parents and family members may be ill prepared to discuss reproductive health care issues with their children.

Zafar (1997) used discriminate analysis to identify important predictors of reproductive behavior using data gathered from two major urban cities, from users and non-users of modern methods of contraceptives. They found that women’s education, age at marriage and husband wife relationship are the important variables differentiating users from non-users of contraception.

2.14 Religiosity, conservatism and reproductive health:

Any system of belief with higher unseen controlling power with emotion and morality connected with worship and belief on metaphysical and supernatural power.

Alam and Cleland (1981) analyzed WFS (word fertility survey) data to examine the influence of religion on fertility differential and contraceptive use. They found the persistence of high and low contraceptive use in many Muslim countries including Pakistan, Iran, and Bangladesh etc. They argued that religion is an important factor in explaining fertility differentials. Sathar and Shireen (2001) described that the influence of social system and the religious institution has dominant role in the determination of family size and use of contraception.

Ashfaq *et al.* (1990) investigated the association between conservatism and fundamentalism and family size and sex preferences among women of the rural Pakistan.

A random sample of 500 married women, aged 15-49 year living with husbands, was selected. The study revealed that fundamentalism is one of the major determinants of underlying family size and sex preference and that education is the most important factor in lowering fundamentalism.

Conservatism is opposite to innovation. It is behavior pattern of people in traditional societies, the symbol of close system. It also supports the preservation of established custom and institutions leading to traditional societies and opposing the change.

Westoff et al, (1991) discussed magnitude of potential demand of family planning. They discussed, that in Pakistani society fertility decision are not female considerations their husband desire are also important.

Petchesky, (1986) revealed and proved that; in most cultures are conservative and most women experience powerful pressures to “prove” their “femaleness” by becoming a mother. At the same time women and their partners will also be influenced by the social and economic reality of the world around them: “A woman does not simply “get pregnant” and “give birth” like the flowing tides and seasons. She does so under the constraint of material conditions that set limits on “natural” reproductive processes”. For many couples this will result in the decision to have a large family, not as is often assumed, out of ignorance or religious obscurantism, but because male children represent an important supply of labor and a sign of social status as well as a source of material security.

Karim M *et al.* (1992), reveals that young adults may feel uncomfortable discussing their reproductive health needs with parents or providers in conservative and close system, particularly if providers are unfriendly. Cultural and religious biases may make providers reluctant to give reproductive health information and contraception to young adults especially unmarried women. Case studies in Africa have shown that adolescents who approach clinics for care are often berated, denied information or given misinformation.

Zafar (1993) pointed out that some primitive cultural and social conditions, might lead to high fertility and high contraceptive use in Pakistan. Teitelbaum, 1975; Knodel and Van de Walle, 1979) reveals that because of conservation in culture, people have

interests other than economic well-being (Turke, 1991). The question arises, how many interests of individuals coordinated to shape observed behavior? The discussion regarding culture reveals that many decision-making styles are habitual and characterized by a culture. Culture varies within and between societies. The orthodox cultural values associate with reproductive health in terms of family size and contraceptive use.

Adamchak, et al (2000) revealed that; community-based studies in Cameroon, India, and Nepal disclosed that how and why, young people often use home remedies, traditional methods of contraception, contraceptives provided by friends or relatives, and contraception and medication purchased without a doctor's prescription reflects the traditional society with conservative behavior.

Baker (2000) pointed out, if young people are embarrassed to be seen at clinics or worried about a lack of privacy and confidentiality, they may not seek care. As with other aspects of youth reproductive health care, social stigma related to seeking care often affects young men differently than young women. Adolescent women may be afraid of medical procedures such as pelvic exams and may feel ashamed about having experienced coercive or abusive sex. Young men may fear that using health services will be perceived as feminine or contrary to social stereotypes of virility.

Senderowitz (2000) discussed the problems youth concerning reproductive health problems and family planning organizations in Latin America have attracted adolescent clients by creating special spaces for young people and hiring staff specially trained to work with teens and adolescents. In Pakistan discussion on reproductive health issue among the unmarried young males and females regarded as vulgarity and cultural belief system.

2.15 Normative and Physical cost of contraception:

United Nations, (1989. p.56) yet the Netherlands is now the only country in the world where more men than women have been sterilized that has become norm in that society, and around the world the gap between male and female sterilization is widening. Thus the health hazards of permanent contraception are borne disproportionately by women.

Hermalin (1983) examined the effect of fertility regulation costs on fertility decision-making in terms of objective costs (time, distance, money) involved in getting contraception and health costs) and subjective costs (fears of serious and minor side

effects, normative and psycho costs). The author pointed out the significance of subjective costs in explaining contraceptive behavior.

Rodriguez's (1977) analysis of WFS data examined the influence of perceived costs of contraception in terms of objective costs on fertility behavior. The author found no association between fertility and the perceived cost except with time. The author (1978) in another publication also investigated the influence of perceived availability and accessibility of family planning services on contraceptive use; using WFS data. The author found an inconclusive effect of perceived supply and accessibility on contraceptive use after taking into account the effect of socio-demographic variables.

El-Tem *et al.* (1985) used logistic regression techniques on pre-and post-project data to examine various determinants of contraceptive practices. The principal findings on community level variables are (1) village proximity to transport affect on contraceptive use independent of socio-economic variables (2) fertility and child mortality have important and opposite effects on contraceptive use (3) several socio-economic variables including materials education affect contraceptive behavior although fathers education and occupation do not and (4) village midwives could successfully promote contraceptive use, health attitudes and practices.

Keller et al: (1989) discussed the source of contraception in Pakistan where there is supply of contraceptive is poor that is 11000 married women have one source of contraception. Shah and Palmore (1979) evaluate the low use of contraception, and that is the in accessibility of contraceptive service that was partly reasonable for low contraceptive use in Pakistan.

Bongaarts, (1995,s) The analysis of DHS data showed that principal causes of unmet need for family planning other than non availability of contraceptives are lack of knowledge, fear of side effects and social and familial disruption, while James & Shanti (1996.) discussed the distance as a main hurdle before availability of family planning facilities in center and acquiring the contraception that is related to the physical cost of contraception.

Robey et al, (1996) estimated that 105 million married or cohabiting women of reproductive age in the developing world have an unmet need for family planning, owing to the lack of accessibility (cost of contraception) to family planning services of acceptable quality and lack of information on services available. Two recent in-depth investigations show that in the Philippines and Pakistan, the most important factor for

unmet need was the husband's disapproval of family planning. One of the major consequences of not being able to meet such family planning needs is unsafe abortion. This subject is highly contentious, generating high-level debates, which have influenced the policies of donors and Governments.

World Health Organization (1997), disclosed in the paper reviews; what is known physical and normative cost concerning the safety, effectiveness, and acceptability of the condom and explores the public health rationale for considering its introduction. The paper proposes a strategy for introducing the male condom, especially in developing countries, and examines questions of cost, affordability and availability.

Casterline et al, (1997; 1999) discussed about many women in less developed countries are unable to effectively control their fertility, as they do not practice family planning. This inability to translate their fertility preferences into contraceptive practice due to poverty i.e. poor economic conditions and lower education and joblessness i.e. social factors experiencing them an "unmet need for family planning".

Royston and Armstrong, (1998, pp. 56-62) discussing about physical and normative or social cost of early child bearing reveals that uncontrolled childbearing causes more than physical and psychological harm. Women who cannot limit their family size would also be socially damaged since they usually bear responsibility for the care of any children they produce. As a result the option of engaging in activities outside the family will effectively be denied to them. The greatest harm will result if the woman is denied access to education, medication. The fatalism gets strong association with fertility and health status.

Lincoln and Kaeser, (1998) reveal that population controllers have curtailed a number of their activities in response to the international 'right to life' movement as well as to the growing criticisms of their policies by their World governments. At the same time, most US drug companies are now ceasing to research develop and manufacture contraceptive drugs and devices in the face of the escalating cost of testing new product under the rigorous protocols now required in the United States, as well as the insurance needed to protect them against law suits from women and children already damaged by their products.

Azhar, (1998) used logistic regression for the analysis of reproductive behavior of Pakistani married woman for explaining contribution of some variables in

contraceptive attitude; and also sees the partial and marginal association between socio-economic and demographic variables and to examine relative significance of predictor variable in explaining reproductive behavior through logistic regression ,he found the significance of physical cost of contraception in determining the differentials of contraceptive use among different socio economic groups.

World Bank (1999) reports about youth in Uganda that nearly half of young people ages 15 to 19 never having had sex and need awareness about reproductive health problems may lead them to psychological harm. It was stated in the above stated report that the proportion for the use of contraception was higher in the developed regions, where 70 per cent of the 170 million married or in-union women were using contraception, compared to 60 per cent of the 880 million in the less developed regions. Worldwide, 62 per cent are using contraception.

The last few decades of research and clinical practice have dallied established that emergency post-coital use of hormonal contraceptives is a safe and effective way of preventing unwanted pregnancy. Emergency contraception is simple and inexpensive in most countries it can be easily made available with low physical cost, as it uses existing oral contraceptive formulation. Many family planning experts believe that greater use of this is a last chance or secondary method of contraception could prevent millions of unplanned pregnancies every year. But despite the important role it could potentially play in fertility control and reproductive health, emergency contraception has yet to become incorporated into routine family planning practice around the world could minimize physical and normative cost.

2.16. Attitude of health providers and utilization health facilities:

All those technical personnel who have know-how about health problems and could treat, facilitate and mitigate their health problems and difficulties are known as health providers, they include medical and paramedics. The attitude is posture of expression of behavior pattern pertaining to health problem, its perception and cognition.

Farooqui (2002) reminds basic duty to health personnel, specially the attitude of health providers and health workers to provide comprehensive and high quality reproductive health services to masses; which is the basic responsibility of health workers in general and physicians in particular. The best way to guarantee reproductive health

services and to meet the needs of community is to involve community in every phase of development of those services. Moelino (2002) proposed in order to equip our physician with the knowledge required providing reproductive health services; they are required to acquire skills to manage issues related to reproductive health with the participation of community. In order to address these priority areas practitioners needs to identify reason and determine the steps for addressing community health problems.

Mngadi. et al (2003) discussed the negative effects of early pregnancy and unplanned birth, that has for reaching effects on mother and child .The all over aim of the study was to generate data on the maternity care and social support provided by health professionals. The doctors; the contraceptive counseling in order to prevent pregnancy at young age and also to improve their sexual and reproductive health statuses paid special attention to adolescent sexual and reproductive health needs.

Pathamanathan et al (2003) discussed and reveals the study regarding Srilanka and Malaysia concerning maternal mortality death, that has improved in booth peer developing countries. The maternal mortality has decreased due to building of health infrastructure improved in per capita income and getting rid of uneven distribution of wealth, along with improvements in service delivery system.

Wang et al (2003) explores the factors using Multiple logistic regression analysis identified six factors associated with adolescents reproductive health of different teenagers include: poor contraceptive knowledge' poor contraceptive self-efficacy, low effective contraceptive use, low socio economic status, more frequent mating and older age. The result provide health professional to develop more effective prevention to mitigate this problem. The results also could be used for effective policy formulation.

At the end of literature review, Islamic perspective regarding reproductive health is give in brief. The perspective is multidimensional in their characteristic that is worth reading.

2.17. Islamic cultural perspective of reproductive health:

For Muslims the legality or illegality of an issue of action (amal) according to Islam is always determined with reference to the four sources of law. The first and foremost source of law is the “QURAN” which is the basic code of law, revealed to Mohammad (SAWS) by ALLAH, and provides complete and specific catalogues of items comprising mandatory (Awamir) and prohibitions (nawahi). As the QURAN is the principal law so the main points of legal or illegal nature are only mentioned therein and

the details of these laws have been explained in Sunnah, which is the second source of law. These laws (Ahkam) of second source includes the practices of the Prophet Mohammad (SAWS), all his (SAWS) verbal instruction and what actions the companions (R.A) adopted in the presence of the last Prophet (SAWS) duly endorsed by him (SAWS). In general it is the explanation of Quran and is practical application, and enjoys a recommendatory position. A Muslim is supposed to act and he has to act in all cases according to Sunnah. In case a clear verdict about an issue is not available in the Quran, then the Sunnah is also silent about certain issue than the third source of law is the actions and views of the companions on the basis of “consensus” (Ijma Sahaba). These companions enjoy an exalted position in the whole “Ummah” who received direct training from the Prophet (SAWS) and as such their judgments were enlightened, but it does not enjoy the same legal status as the Quran and Sunnah. The Muslims have the right to frame their own laws according to their own circumstances in the light of Quran and Sunnah.

The fourth source of law is the “Innovation” (Ijtehad) by the committee of renowned religious scholars and jurists, having complete knowledge of Quran and Sunnah. It is only applicable in cases and matters about which the aforementioned sources are silent. The verdict by such scholars would definitely be in accordance with or in consonance with the Quran and Sunnah. The Jurisdiction of innovation is limited to the permissible only.

Following is the scale through which factual position of a matter is determined: Taking the first source i.e. the Quran whether there is any injunction revealed to adopt or abandon family planning? It is quite clear that there is no such order (Hakam/Amar) that Muslims should or should not adopt family planning but there are two clear cut verses in Quran which says.

Pickthall , (1979) translation of Holy Quran, Quran 6-151, (17-31) “Do not kill your children due to the fear of sustenance, we give sustenance to them and to you”

The above-mentioned Quranic verses are quite clear and there is no ambiguity that the word “Aulad” (Off-springs) has been mentioned. Aulad is used for the baby who has already been delivered but to be on the safe side Aulad should be considered from the day the process of fertilization has started. Therefore, whoever try to disturb or dislocate

the process of embedding from the day the menses has stopped, will be responsible for killing the child to be born.

Coming to the second source of law i.e. Sunnah, the Prophet (SAWS) has neither given verbal, instructions regarding action on family planning methods nor he (SAWS) has himself acted upon the so called family planning. But he (SAWS) gave instructions to the companions (Sahaba R.A) when he (SAWS) came to know about some prominent companions who were participating withdrawal or coitus interruptus (azal) with the female (captives) of their own share. The prophet (SAWS) addressed them, as conveyed by Abu-Saeed Khuderi (R.A.) in four continuous Ahadees (saying of the prophet SAWS).

Saheeh Bukhari and Mishkat Sharif (Edi-2, p-81,2 3 4) ;the prominent books of Ahadith mentioned; that Prophet (SAWS) said, “The souls which are ordained by Allah, will definitely come into this world and your device cannot stop them “Abu Saeed Khurdri (R.A) also said that the revelation of the Quran was still continuing at that time. He further stated that Azal was practiced by Sahaba with the slave women and not with freed women. The traditions (hadees) of the same nature was reported in Saheeh Muslim the second authentic collection of (Hadees), that at the time of verbalizing the statements, the Prophet’s (SAWS) face became red, denoting un pleasure able gesture. It means that pre fertilization practices of contraception’s are allowed like withdrawal etc.

According to the third sources of Islamic law that is the opinion and action (Amal) of the companions is quite clear from the point mentioned in the second source of law i.e. the Sunnah. Most of the prominent companions R.A. were observing Azan and others did not object to it. That is why many religious scholars favor family planning on the basis of Azal (Withdrawal) even it is justified in “Fatawa Alamgiri” the most authentic legal document consolidated by the consensus of 500 religious scholars of the sub-continent.

Nadia, (2003) stated that the provision of basic health care facilities has never been the priority of the rulers in the subcontinent including developing countries in general and Muslim world in particular. For example; while Mughal emperor Shah Jehan built Taj Mahal for his Queen, Mumtaz Mahal – who died as a result of pregnancy, related complications during her ninth delivery – a King in Sweden was setting up a school of midwifery at about the same time. And today only two deaths are reported

during 300,000 pregnancies in Sweden, while in Pakistan the number stands at 600 per 100,000.

2.18 Summary: In the above discussion, the research has shown major distinguishing factor regarding reproductive health in study area. The most important factor is that a small proportion of women living in urban areas have access to R H facilities. Because of cultural drift during the recent years there is a change and shift from the bonds of extended family to the nuclear family, and the autonomy of the couple is also a factor of large family size and low level of contraception.

Cultural factors such younger age at women marriage, poor spousal communication on family matters, lack of women participation in decision making process, poor socioeconomic circumstances, physical and normative cost of contraception and poor utilization of health facilities and distinctive religious attitude toward reproductive health are main determinants emerged in literature in explaining family size and contraceptive behavior.

Last but not the least, there is need for a model that relates to our culture and religious fringe. There contemporary interpretation of Ijtehad also proposes for the planning of family; for the Islamic Law that also finds answers for us. Besides, women's empowerment is essentially important to encourage women participation in the labor force, but also for the women to be recognized as humans in their own right is a deciding factor to ensure a safe future.

3.1 Introduction:

This chapter describes the methodology of research study, training, supervision of interviewers, and data analysis techniques, including collection of data, study design, sampling frame and procedure of respondent's selection. In this study both qualitative and quantitative methodologies have been used to diagnose and examine the effect of socio economic and cultural factors on reproductive health of women. The data was collected both from primary and secondary sources. It is important to note that the methodology for qualitative data i.e. focus group interviews is given in next chapter.

3.2 Research Design:

The N.W.F.P. is the third province of Pakistan with respect to population size. The population of the Province has been increasing tremendously. The women as part of population have been facing multidimensional health problems. Very limited studies on reproductive health issues were conducted in the Province so far; due to the cultural constraints.

The study was conducted in urban areas in two districts i.e. Peshawar and Kohat. These districts were randomly selected for study. Thus, three classes i.e. lower, middle and upper strata from communities in each one district were taken. Sixty users who had been using different family planning methods including pills, IUD, injectable, vaginal methods, condom, female sterilization, male sterilization, periodic abstinence, withdrawal and other methods of contraceptive from the family planning clinics. Sixty non users, i.e. those (who were not using any contraceptive method) were selected using systematic random sampling technique. In this way the total sample size was 720 in number, i.e. 360 users and 360 non-users of contraception.

3.3 Profiles of the study areas:

The districts of Peshawar and Kohat were randomly selected for the study. Peshawar is the most populous in whole province where as Kohat is 5th largest city. A high mountainous range separates both districts that bifurcates northern and southern regions. A difficult terrain is found between both districts; a tribal belt known as Dara-e-Adam Khel that lie between two cities. According to district census report of 1998; the population of urban Peshawar was 2019.0 thousands, where as Kohat

population was 562.64 thousands as already mentioned in first chapter. The population of Peshawar has tremendously increased due to influx of Afghan refugees, and it has been increasing at the rate of 2.63 percent (DCR, 98). Population of Peshawar district has increased more than 5 times since 1959. It was 2019 thousand in 1998 as compared to 391 thousand in 1951 that was increase in population 416.37 percent since creation. The increase in population is 81.40 percent during 1991-1998. The increase was at the rate of 3.5 percent.

The population of Kohat increased at the rate of 3.70 percent. It was 562.64 thousand in 1998 as compared to 143.96 thousand in 1951. The overall increase of 290.83 percent in the last 47 year. The population of the district increased by 72.26 percent during 1981-98, and annual growth rate of Kohat was 3.25 percent.

Significant differences were not seen in the cultural values in the context of fertility and contraceptive behavior of the respondents from the two cities. Because the life style of residents of both cities people was almost similar. Religion and language which are powerful forces influencing lifestyle of people are the same in the both cities.

Peshawar is divided into fourteen local areas on the basis of physical planning aspects and ten local planning areas in Kohat. All housing units within each Local Planning Area (LPA) were listed and the sampling interval determined by dividing the total housing units by the desired number of housing units.

Following systematic Random sampling with a random start was used to select 20 housing units per LPA, nine local communities with nine women health centers were randomly selected. Four housing units were assigned to each interviewer every day for conducting survey. Few housing units were typically comprised more than one household (a household was defined as people living together, who share a main meal, with one head of household). At the housing unit, the interviewer identified the number of households and selected one, using a simple random sample. The number of communities and health centers are given in figure no 1, in chapter first.

3.4 Organization of the fieldwork:

The citywide nature of the survey in both urban centers made it necessary to set up fieldwork organizations in each of the district, where the survey was conducted. Two supervisors from the Population Welfare Department were coordinating the survey. These supervisors distributed questionnaires to interviewers each morning and collected both complete and incomplete questionnaires in the evening when the interviewers returned from the field. They also accompanied the interviewers into the

field and carried out spot checks on the interviews. In addition, they were responsible for verifying and editing one or more completed questionnaires from each interviewer from time to time to detect omissions and inconsistencies. The interviewers were also advised and helped by the supervisors when they encountered any problem in the field.

On average, a total of four interviewers were working in each district. All the interviewers were female and employed full-time during the survey that lasted approximately fourteen weeks, including the training period. The interviewers and supervisors were provided with an interviewer's manual and other materials, such as notable events list, maps, etc, prepared for the survey. They were then given basic training in interviewing techniques. 1. The training involved:

2. Introduction to the survey;
3. Interviewing techniques;
4. Discussion and familiarization with the questionnaires;
5. Practice interviews between interviewers
6. Supervised practice interviews in the fieldwork that took place over about three days.
7. The interviewers were with a mean age of about 24 years.

3.5 Field Management & Data Collection

For this purpose experienced and qualified supervisors were recruited and trained to supervise the study. Four interviewers (females) per district were recruited using set criteria, such as education, fluency in language, research experience. Women interviewed women because it was assumed that women were more likely to talk freely about their reproductive health experience with other women. The expert female interviewers were involved in focus group interviewing procedure. The interviewers were trained in each zone for three days. Meanwhile they learnt methods of pre-testing the questionnaire at their locations. Four best out of 10 female interviewers were selected after strict test and performance during test survey. Refresher training was conducted one day prior to the main field survey and the fieldwork was conducted from November 2002 to February 2003.

The principal researcher obtained letters of permission and approval, to conduct the survey from respective provincial officials from Directorate of Health, and local community leaders. A survey team, which included the principal research investigator and supervisor visited community heads and presented the letter of

approval, and sought their support and cooperation. Together, they selected a date for the interview, ensuring that it did not fall on hours when workingwomen were out of their residence. Traditional leaders were informed and mobilized their communities, which allowed the survey team easy access and group cooperation.

The questionnaire administration is related with assistance local community for the interviews. The interview schedule was translated into the primary languages of the study area, namely, Urdu, and Pushto. The final version of the questionnaire was based, in parts, on focus group discussion findings as well as the result of questionnaire; pre-testing was conducted in two zones during the training.

The data collection group consisted of interviewer's team; supervisor and principal research investigator, who remained at district headquarters to make the task more convenient. Each morning, the team assembled, went to survey areas (S.A) and completed the assigned work. Data collection from the female respondent's questionnaires took approximately three and half months in all local areas.

3.6 Some aspects for improving the quality of data:

The questions have much importance in the instrument. A strategy moving from easy to difficult was adopted. The questionnaire was designed in such a way that factual and easy answer to questions regarding back ground variable were framed first. Different types of the attitudinal and cultural aspects of question were asked, like family size, sex preferences, husband and wife relationship, marriage pattern, religiosity, conservatism, family values, use of contraceptive and attitude of health provider was asked in a sequential form given in conceptual framework and questionnaires. It is important to mention that questions in the instrument were formulated in such away that expected responses were leading from positive to negative pattern. Some of the questions were mixed in order to keep the respondents attentive. The sensitive questions were avoided.

Some of the issues were taken into account in this study was to improve the data quality, for example study design and administration of the interview schedule was given due care to enhanced data quality, sensitivity, and therefore sequence of questions were given due importance. As for reliability checks and coding scheme was concerned, it was also considered important. The training for interviewers and their selections including field supervision and tests survey were properly managed to get quality data.

3.6.1 Questionnaire Designing and Sensitive Questions:

Questionnaire development is a difficult task in social science research. Instrument must carefully be structured in order to obtain, reliable and true responses, and also to achieve a fair level of respondent co-operation, questions must be within the total normative ideology of the people. Attention was paid to the sensitive, threatening and embarrassing questions.

Sensitive Questions:

Instructions in the beginning of questionnaires fall within purview of the ethical rules of questionnaire design. It is a basic principle of social research that questions should not be confusing. Every action was adopted to measure a single piece of action. Validity could be threatened if the respondents feel embarrassed to respond to the question. Thus such actions were avoided. At the designing stage of the questionnaire. Maximum care was exercised not to include sensitive or embarrassing questions that were conflicting cultural values of the people. In this context, few questions were dropped from the questionnaire after the pretest because it was felt that the respondents were feeling hesitation and embarrassment in response to that question.

3.6.2 Sequence of the Questions:

The importance of order of questions to gain a fairly reasonable level of respondents' co-operation cannot be over emphasized. A strategy moving from easy to difficult questions was adopted. The setting of the questionnaire was designed in such a manner that factual and easy to answer questions were placed first and the question on attitudinal and cultural aspects in terms of social, demographic and gender roles and relationship were placed in the sequence respectively last of the questionnaire. The first part of the questionnaire, the questions were about socio-economic and demographic conditions and in the last part the questions were on conservatism physical and normative cost, and at the end the questions about attitude of health providers and utilization of health facilities were discussed.

The questionnaire was finally designed with some modifications, additions and according to the needs and customs of the province. A household questionnaire was administered for information on members including sex, age, education, literacy, marital status and income. In addition, questionnaires were administered in each household.

In general, the questionnaires were made up of about 95 percent closed-ended and about 5 per cent open-ended questions. Some of the open-ended questions were used to make an in-depth exploration into attitudes and perceptions of fertility behavior and the use of contraceptives.

The questionnaire consisted of 49 main items and sought information about the following general characteristics: -

1. Personal characteristics: for example, age, education, marital status, religion, occupation, etc.
2. Household size.
3. Demographic data including ideal family size ,sex preferences and age at marriage, prenatal and postnatal care, the age at mortality or alive age of each child at the time of the survey.
4. Gender roles and relationship include communication on family and contraception, participation in decision-making and family matters. The normative and physical cost has also been discussed.
5. Religiosity and conservatism questions were also asked to know the behavior pattern regarding their religious behavior and proper understanding of Islamic values and belief system.
6. Another section deals with reproductive health issues, matters relating to health facilities; information about, side effects of contraception, spacing of children, the matters relating to pregnancy and place of getting contraception.
7. Data on reproductive health problems including RTF and RTI and last live birth as a result of reproduction. At the end cost of contraception and health provider's attitude were discussed.

3.6.3 Reliability Checks:

Obviously, reliability could be established by asking important questions at different situation repeatedly; i.e. twice or thrice. The reliability could not be established by techniques in an attitudinal research that study the behavior of respondents because similar question are asked to measure precisely a particular behavior. The other drawback of this technique is that respondent believes that interviewer is not listening and wasting their time. As a result it reduces the response reliability instead of increasing it. The response reliability in this study was established by asking some questions that provided a check on the response to similar question that were asked earlier. The procedure adopted in reliability was motivation

and cooperation of the respondents. If they were confident about the questioner and believe upon their integrity they would be cooperative and replying in a true manner. The statistical test was an important step taken for reliability. The Cronbach Alpha test was applied to check the reliability of indexed variables that was necessary for validity of indexed variable before bi-variate and multivariate analysis.

3.6.4 Coding

Coding the responses of the questions is a very useful approach for data processing and analysis, and also for accuracy. Although every item in the questionnaire was pre coded, the data were transferred to coding sheets in order to check for complete accuracy. The data was entered onto the computer SPSS version-112 for analysis. Attention was also paid to ensure that the coded categories were exhaustive and actually exclusive. The few open-ended questions that were asked in the survey were coded after the questionnaire administration.

3.6.5 Time and relevant Question:

Questionnaires were developed on the basis of objectives of the study and survey format. Administration of questionnaire is important factor that is taken into consideration during its construction. Fisher et al (1983) argued that one should keep questionnaire as short as possible to make more responses to avoid mistakes asked by the respondents. The aim was achieved through inclusion of those questions, which are related to the study, and avoiding unnecessary questions. This is clear from the time taken for interview and the number of questions in the data analysis. The interviewers in the administration of the questionnaire took one an hour average. All questions were used in the data analysis to study the research hypotheses.

3.7 Threats to Validity

Maximum care was taken to minimize possible errors by using many methods with similar characteristic. Such as:

- 1) Random selection of respondent's to minimize the affect of any systematic error due to extrinsic variable related to reproductive health and contraceptive behavior as well as different aspects of family life.
- 2) In fact randomization helps in maximizing of internal validity of data, it has little affect on external validity that is related to the representative sample. A lot of efforts were made for the selection of representative sample from the population

3.8 Sampling and sample size:

Multi-stage systemic and stratified random sampling procedures were adopted with Headquarter of city districts of Peshawar and Kohat, each of the nine health care centers and communities were selected for the study given in table 1.6 in chapter one on page 18.

However, the 1998 Census Enumeration Areas (E.As), the available sampling frames and the urban directory were used to assist in the selection of the cluster units areas in both districts. The selection of the clusters in the urban areas was based on both accessibility and the presence of clinics for maternal and child health and family planning. Once the sample communities were identified, the researchers personally visited the communities to make the initial contact with them, and also with provincial health officials for the purpose to visit clinics in the research areas, and “big men” in order to lay down the ground work for the intending survey in community.

3.9 Sample size:

It is an important question that, how large was sample size of the study? The answer depends upon objectives of the study and population characteristics and the type of data, time, available resources, and analysis plan. A large sample size without random sampling is not representative sample.

Proper sample size was necessary to ensure the validity of the findings. Broadly speaking there is no clear-cut method to raise the sample size. Numerous statistical techniques with the assumptions are available to estimate sample size. Although the sample size maximizes the validity and reliability of each findings, but time and resources are the key constraints to the sample size, and also three things are considered to determine the size of sample, i.e. an availability of resources, which maximizes the limit of the sample size and analysis plan, which minimizes the limit basically and level of variables on major characteristics.

The supervisory committee agreed on 120 respondents from each stratum i.e. sixty from community as non-user and sixty uses from clinics respondents from each stratum of population i.e.360 from each district.

The sample size of the phase of the survey was initially intended to consist of 360 respondents in each district, in urban area. All the sample size consisted of females aged between 15 and 49 of childbearing age. The decision to sample females was based on the primary aims of the survey. The estimated sample size of

approximately 720 females of childbearing age was adopted because it was felt, that it was large enough to provide reasonable data for the purposes of this survey.

3.10 Selection of Respondents

The criteria set out in the survey for the selection of the respondents were that the female respondents of childbearing age. Either the wife or one of the wives of the head of the household was selected. In the absence of the wife of the head of the household, any female of childbearing age with a live birth was chosen from same household.

3.11 Phases of Fieldwork:

Field staff comprised all female interviewers per team. The general approach was to combine two teams for each site, supported by a supervisor and locally hired vehicles. Team members (especially the females) and supervisors did the on-site editing. The supervisor was responsible for a region (for each team) in each urban area.

The first phase started on October 2002 and was centered at the major training sites (Peshawar, local areas). It began with a few sites locally for review, and then extended to two further sites in the Peshawar, gradually spreading to adjoining local areas. A complete team was sent to accomplish the targets of survey.

The second phase started in December, attended to those centers in urban Peshawar in the district, which could not initially surveyed due to the certain constraints like difficult and sparse terrain and misconception and skeptical behavior of community about interviewers. The fieldwork started in the middle of November 2002, included a break for winter that completed in February 2003. The actual interviewing lasted for three months in research area.

However, the district health office staff took over the responsibility of running the surveys using female medical technicians, supported by local training and supervision by central survey staff.

The fieldwork started in January 2003, focused on the urban Kohat and continued in randomly selected other local areas. By January 2003 almost all sites had been completed. The remaining sites in Peshawar required revisiting i.e. follow up due to initial resistance. These needed the strategy to use more trained female. About ten sites in urban Peshawar also required revisiting due to prior lack of completion.

3.12 Constraints

The general constraints included the short time period 3-4 months. In several local areas, some listings for the sample were unavailable during the time of the survey, even allowing for a waiting period while other sites were done. Other constraints included insecurity from the Afghan issue, portrayal as an NGO survey in some parts of the province resulting in local resistance, religious "Fact was" in some localities hindering the fieldwork that was due to non-availability of infrastructure and rough terrain walking tracks of 2-3 miles in most sparse areas. Despite these problems and delays, the fieldwork continued its momentum to ensure that the required deadlines were met. Much of this was due to strong level of commitment and team spirit.

3.12.1 Data quality and response rates

Out of the 720 households randomly selected from Peshawar and Kohat for study. The total 720 respondents were found to be occupied for a household response rate was not hundred percent. The required percentage was completed with different follow up. Out of these 720 respondents, 360 from each urban centre were successfully interviewed fifty percent from clinics (users from clinics, and non users from community) fifty percent from community. The response rate was the same in both urban areas. In the interviewed households, 360 eligible women aged 15-49 were identified. Of these, all were successfully interviewed, yielding a response rate of 100 percent. These, questionnaire were completed from 720 women with at least one live birth. The number of steps were taken for 100 percent response rate. The high response rates are remarkable, despite of tight schedules and local resistance in few localities.

3.12.3 Quantitative Methodology

For testing the research hypotheses discussed in beginning chapter, both qualitative and quantitative methodologies were employed. The chapter on methodology was related to methodological aspects of quantitative data collection, for example, study design, selection criteria for respondents, sampling procedures, sample size, selection and training of interviewers and different statistical techniques used for data analysis, such as bivariate and multivariate analysis, chi-square, T test, correlation analysis and (multiple linear regression analysis), and logistic Regression.

3.12.4 Data Processing and Analysis

The complete questionnaires were taken to the computer center of the University. The data were edited and coded by a group of persons in accordance with the instructions set out in the coding manuals. The data sheets were prepared and data transferred into the computer and data cleaning was carried out by the author, the supervisor and computer programmer. Questionnaires were checked for accuracy and completeness, first by the interviewers and then by the supervision. Data processed on a computer using SPSS. The data entry “check” program facilitated data entry and cleaning.

The statistician entered data on using Microsoft Access Software. Office editing was done prior to entry and post-entry. A random check for data entry disclosed few errors. Analysis used mainly SPSS Version 12, for Windows and as required, Version 3.0 and V3.1, such as for assessment of stratification/status and confidence intervals for systematic random sampling.

Subsequent to frequency counts, bi-variate analyses (making cross-tabulations) were undertaken to further describe the sample and examine the relationships between dependent and independent variables.

3.12.5 Techniques of Data Analysis

Statistical techniques such as, chi-square, Pearson’s correlation, multiple linear regression and Logistic regression models were used to measure the association of variable, tested at 0.01 and 0.05 levels of significance.

3.12.6 Bi-variate Analysis

Investigation of a bivariate relationship is a vital step in planning and testing the research hypotheses. A relationship of the variables means that the distributions of values of the two variables are associated. In other words, the variation explained by variable was patterned in such a manner that its variance is not distributed in connection with the other variables. In the extent of a bivariate relationship, the problem arises whether a relationship was real or has arisen by chance. The validity of a relationship was confirmed through the chi-square test. This statistical test, which is widely used to know the probability at certain level of significance, which is the observed relationship between variables, may have arisen by chance. This measure was calculated comparing the observed frequencies in each cell in a contingency table with those that would occur if there were no relationships between two variables. These are known as expected frequencies. The result of the chi-square depends upon

the difference between the expected and observed frequencies. A large difference in a fraction of high value of the chi-square is seen.

Originally, significance of the relationship was examined by establishing a null hypothesis, in which it is assumed that there was no difference or no relationship between two variables confirmation or rejection was made through the chi-square value and level of significance, backed by Gamma values i.e. Gamma is a systematic measures of association for orderable discrete variable that takes into account only the number of untied pairs (Knoke, et al).

The level of significance is basically, a stable risk that the null hypothesis may be incorrectly rejected, words the level of significance relates to the probability of might be making such a false inference. Usually the level of significance was taken as 0.05, or 0.01.

The chi-square test helps to explain a relationship but not the strength of a relationship. The strength is related to the degree or extent of relationship between the variables. It is interesting that a large-value of chi-square does not necessarily mean the presence of strong relationship between ordinal and nominal variables. Pearson's correlation coefficients are calculated for further examination of the strength and direction of relationship between variables.

Index construction:

In social science, the researchers assemble questions, into a scale, which are internally consistent and represent a single idea. The identification of these questions based on their own and other's experience. Though, questions were designed to assess the husband wife relationships and beliefs and values about family and family life based on researcher's own experience. Although maximum care was taken to develop statements in a scale to measure the single idea, still it is difficult to say that the statements in a scale type a single idea. It is not appropriate to accumulate the responses without checking their internal consistency. Variety of methods is available for estimating the internal reliability of scales. The most frequently procedures are Split-half, Gut man and Gronbach's alpha. The Split half examines the reliability by dividing the items in a scale into two groups. The relationship between respondents' scores for both groups is examined. In the study Gronbach's alpha was used to meet the required criterion (reliability coefficient should be 0.70 or above (Sufian, 2001). The coefficients produced by the Gronbach alpha were within the range 0.75 to 0.95 for different scales indicating that items in the scales representing more than one idea.

3.12.7 Multivariate Analysis (Multiple Linear Regressions)

The multivariate analysis involves multiple linear regressions for exploring the relationship of dependent variable family size, and use or not use of contraception. Varieties of method are available to study the relationship when two or more than two variables are involved. The most frequently used method to investigate the significance of each of the factors in the study is multiple linear regressions. In other words approach is applied to find the alternative explanations of a relationship that is not possible in co relational or bi variate. The alternative explanation of a relationship can be through the introduction of a control group. The problem of conclusions is also examined by the identification of those, which contaminate the relationship through this approach. The widely used approach for conducting multivariate analysis is regression analysis. The regression approach is used to identify the relative importance of independent variables to explain the independent variables. The regression equation is generally expressed.

$$y = a + b_1 x_1 + b_2 x_2 + b_3 x_3 + b_n x_n + e$$

Where “x’s” are the independent variables, “b’s” are the regression coefficients (the amount of change in the dependent variable for a unit change in the independent variables) of the independent variables, and “e” is an error term that indicated the proportion of unexplained variance in the dependent variables. For the comparison of the independent variables, standardized regression coefficients “beta weight” are calculated by multiplying the regression coefficients that were derived from the different units of measurement by the standard deviation of the relevant independent variables and dividing that product by the standard deviation of the dependent variables. Standardized regression coefficients in a regression equation, bear the standard unit of measurement and that can be used to examine the comparison of the significance of two independent variables in terms of the explained variance in the dependent variables, because the magnitude of unadjusted coefficients is affected by the nature of measurement scale for the variable itself. The Pearson’s correlation coefficients are also calculated to see the presence of multi co linearity in the data. The stability of regression coefficients may be doubtful in the presence of “multi co linearity” because the independent variables are highly correlated (if the correlation is more than 0.80). If variables factor are highly correlated, then there is no space to treat them as independent variables (Sufian, 2001).

The standardized regression coefficients allow us to see the importance of each of the independent variables for the dependent variable. The extent of significance, (magnitude of each of the independent variables or a set of independent variables is examined in relation to the joint effect of a independent variables or a set of independent variables through the inclusion of a variable or a set of variables in the regression model (stepwise method). The criterion for the inclusion of a variable (factor) or a set of variables (factors) in the regression equation is based on the magnitude of correlation of the independent variables with the dependent variable. Those variables entered first which are highly correlated with the dependent variable. The more collective effect of all independent variables on the dependent variable is examined by adjusted R^2 because the number of variables involved in the regression equation inflates the magnitude of unadjusted R^2 . The adjusted R^2 controls the effect of the number of independent variable in the regression model. The validity of the regression model is seen in terms of standard error of the estimate. The standard error of the estimate of each regression coefficient in the regression equation reflects the accuracy of the regression equation.

Another important technique used for prediction in dichotomous model is known as logistic regression is given below.

3.12.8 Logistic Regression Model:

In logistic regression, one can directly estimates the probability of an event occurring. For the case of a single independent variable, the logistic regression model can be written as:

$$\text{Prob (event)} = \frac{B_0 + B_1 X}{1 + e^{-(B_0 + B_1 X)}}$$

$$\text{Prob (event)} = \frac{1}{1 + e^{-(B_0 + B_1 X)}}$$

Where B_0 and B_1 are coefficients estimated from the data, X is the independent variable, and e is the base of the natural logarithms, approximately 2.718.

For more than one independent variable the model can be written as:

$$\text{Prob (event)} = \frac{e^z}{1 + e^z}$$

$$\frac{e^Z}{1+e^Z}$$

Or equivalently,

$$\text{Prob (event)} = \frac{1}{1+e^{-Z}}$$

Where Z is the linear combination.

$$Z = B_0 + B_1X_1 + B_2X_2 + \dots + B_pX_p$$

The probability of the event not occurring is estimated as

$$\text{Prob (no event)} = 1 - \text{Prob (event)}$$

If the above figure is plotted for the logistic regressions curve, and then the values of Z are between -3 and +3, the curve is S-shaped. It closely resembles the curve obtained when the cumulative probability of the normal distribution is plotted. The relationship between the independent variable and the probability is nonlinear. The probability estimates will always be between 0 and 1, regardless of the value of Z.

ii) Interpreting the Regression coefficients

In multiple linear regressions the interpretation of the regression coefficient is straightforward. It tells us the amount of change in the dependent variable for a one-unit change in the independent variable (beta).

To understand the interpretation of the logistic coefficients, consider a rearrangement of the equation for the logistic model. The logistic model can be rewritten in terms of the odds of an event occurring. (The odds of an event occurring are defined as the ratio of the probability that it will occur to the probability that it will not. For example, the odds of getting a head on a single flip of a fair coin are $0.5/0.5 = 1$. First let's write the logistic model in terms of the log of the odds, which is called a logit.

$$\text{Log} \sum \frac{\text{Prob (event)}}{\text{Prob (no event)}} = B_0 + B_1X_1 + \dots + B_pX_p$$

Since it's easier to think of odds, rather than log odds, the logistic equation can be written in terms of odds as

$$\frac{\text{Prob (event)}}{\text{Prob (no event)}} = \frac{e^{B_0 + B_1X_1 + \dots + B_pX_p}}{e^{B_0} e^{B_1X_1} e^{B_pX_p}}$$

Then rise to the power B_i is the factor by which the odds change when the i th independent variable increases by one unit. If B_i is positive this factor will be greater than 1, which means that the odds are increased; if B_i is negative the factor will be

less than 1, which means that the odds decreased. When B_i is 0 the factor equals 1, which leaves the odds unchanged. For example, when the GRADE changes from 0 to 1, the odds are increased by a factor of 2.14, as is shown in the “Exp(B)”.

As a further example, let's calculate the odds of having use or not use of contraception with different variables like education of spouse, and attitude of health providers participation in decision making by women. First, calculate the probability that the nodes are related to reproductive health:

$$\text{Estimated prob (R.H nodes)} = \frac{1}{1 + e^{-z}}$$

4.1 Introduction:

What are focus groups? What is focus group interview and why it was employed in the present study that is discussed in this chapter. Moreover, the techniques used for focus group interviews, selection of participants, information collected, method of recording the interviews, analysis of data, results and discussions and summary of the results are described in this chapter.

The view of the primary stakeholders including community members, officials of health department and members of reproductive health providing institutions was discussed. Participants were asked about social factors including occupation, education, income and family set up along with of respondent's demographic factors, like family size preferences, sex preferences, marriage pattern and infant mortality. Rests of the factors included in research variables included gender roles and relationship, conservatism, religiosity, physical cost, normative cost and attitude of health providers.

4.2 What are focus groups?

Focus groups consists of small group of people, usually between six to eight in number is brought together by a trained "moderator", to explore attitudes and perceptions, feelings and ideas about topic. The focus group interview research techniques are applied today for the collection of qualitative data. The manual of focus group describes the methodology regarding recruitment of subjects, ways and means of conducting focus group discussion. Focus groups are regarded as useful ways of exploring attitudes on non-sensitive and non-controversial topics. They can excite contributions from interviewers who might otherwise be reluctant to contribute in formal interaction.

4.2.1 Composition of Focus Groups?

Focus groups are those groups that discuss particular topic like people perception about reproductive health problems and social services. Robert K, Merton (1941), Kendall, (1956), and Bernard (1995) described and discussed the method which was important to check cross perception and behavior pattern of the people. Focus group

consists of small group of people composed of 8-12 or 6-8 members, who are brought together by a trained moderator to explore attitude and perception, feeling and ideas about the topic. The focus group research techniques are important in collecting qualitative data and there are different methods and manuals to recruit participants to conduct focus group discussion, (Morgan, 1998).

Focus groups are generally regarded as useful group of exploring perception, attitude and behavior pattern on non-controversial topic. Focus group can lead to inside study, that might not other wise have become known to the one to one conventional interview, (Denscombe 1999:115).

4.2.2 Focus group and latent information.

The study of focus group was used to supplement quantitative findings for the validity of results. Focus group can be used at the end of the program or even month after completion of program. Key community people can be interviewed in focus group when their views about program are studied. Focus group can also be used for all type of evaluation purposes (Patton 1990:336).

Bernard (1995:226) said that using focus group interviews can be allotting more to lead the data towards validity. The focus group were taped and transcribed for analysis. Paul Nikowi's (1992) study showed clearly the value of using several data gathering methods in one study. The multi method approach leads towards the across checking and reliability of the data, and validity of findings. It is also important to note that the focus group interviewing is necessary in assessing public policy issues and consideration leading towards the solution and policy formulation of important issue like family planning and reproductive health problems.

For most evaluation and analytical studies more than one technique are required to see the intensity of the problem. "The best practice" evaluation reviewed by Baker (2000:14) for the World Bank highlights that choice of analysis is not exclusive and evaluation is of the combination of quantitative and qualitative methods.

4.3 What is focus group interview?

A carefully planned discussion designed to obtain perception on defined area of interest in permissive and non-threatening environment. The discussion is relax, comfortable and enjoyable for the participants as they share their ideas feelings and

perceptions. The sessions usually revolve around a prompt, and trigger some stimulus introduced by the moderator in order to focus the discussion. There is less emphasis on the need for moderator to adopt neutral role in the proceedings than is normally case with other interview techniques. Moreover, a particular value is placed on the interaction within the group as a means for eliciting information just collecting each individual's point of view. There is special value in collective view rather than aggregate view.

Focus group known to have been involved in particular situation: they have been watching a film, hearing a radio program, reading pamphlet, article a book, taking part in a psychological experiment, observed social situation for example a ritual and a riot. Secondly, the hypothetically significant elements are included in the group discussion. The pattern, processes, and total structure of situation were analyzed. The third step was developing an interview guide setting with major area of inquiry and setting of hypothesis. The relevant data was obtained in the interview and analyzed for investigation that is more rigorous.

4.4 Organization of focus group

There are several practical considerations for organization of focus group discussion. The whole process was divided into three stages:

- A. Preparatory arrangements
- B. Conduct of the FGD conduction
- C. Reporting of the FGD.

4.4.1 Preparatory arrangements:

To have a good quality focus group discussion, it is important to spend some time to make necessary arrangements that would help better facilitation and generate a good desirable discussion. It is worth spending this time as prevents problem that may arise during the conduct of group. The preparations of focus group discussion include the following:

1. Venue for F G D- was accessible peaceful, impartial and acceptable.
2. Potential participants- during the household survey, interviewers developed a list of community members, and both males as well as females, who had shown their willingness to participate in the focus groups. The team used this list to identify and invite participants to the group. Powerful, influential people were not given

opportunity to participate; they MUST NOT participate in the focus group discussion, as this prevents others from expressing their opinions. Such influential people were interviewed individually as key informants.

3. Number of Participants ideally for a good quality Focus Group Discussion was 6-8 in number.
4. Timing for FGD-when deciding the time for the FGD, whether and other matters such as women shopping day, harvesting and other festivals like those that EID and Ramadan were kept in mind. Community was always consulted to decide about the time for FGD.
5. Training and understanding of field team about FGD methods, process and related issues –The team going into the field to organize and run the FGD had adequate understanding, skills and experience. They had enough practice during the training about organizing the Focus Group Discussions.

4.4.2 Conduct of the FGD

It includes seating, arrangement, optimum duration, spontaneous opinion, the facilitator and covering topics. The seating arrangements were made in such a way that all participants received complete attention of moderator. The group was described about optimum duration for conducting interviews. If they become aware with more time then the participants lose their interest in discussion. Thus, they are taken into confidence regarding the time spent in discussion. Spontaneous opinion about the discussion was recorded.

4.4.3 Reporting of the FGD

The best focus group discussion is of little importance if the recording and reporting does not capture the content and spirit of the group. Focus group are recorded in two ways: by a tape recorder and with written notes taken by moderator. A mix of both methods was in this study but emphasis remained on recording through tape recorder. The moderator took brief notes in order to avoid the interference with spontaneous nature of the group interview and total recording through tape recorder. The tape recorder was set up in a plain sight to avoid the creation of necessary secretive atmosphere that could inhibit the participant's conversation discovered. Moreover, the importance of recorder was mentioned at the start of discussion and it was introduced a tool to help capture every

ones comment. The participants were encouraged to speak one at a time to avoid garbling the tape. In addition extra audiocassettes and accessories were arranged get rid of troubles during recording.

4.5 Focus group discussion

To inform and develop the questionnaires, focus group discussions were conducted in the urban center of each District during the week of interviewer training, and in some of the communities that were sampled for the interviews (convenience sampling of locations). In each zone, a qualified female facilitator/moderator and note taker conducted the discussions in the presence of the assistant female supervisor or second to principal researcher.

4.5.1 Selection of participants for focus group

The importance of respondents sometimes is under estimated in important research problems. This procedure of negation of public contaminates results of the study. Therefore consideration regarding participation of people becomes utmost important. There are many purposes of organizing the focus group discussion, and identification of persons is important. The researcher likes to know the basic quality of focus group. Group should base upon following characteristics.

First, purpose of the study guides that who should be invited.

Second, the composition of the group, that what type of people is included in the group.

Third, about the size means number of person could represent focus group.

Fourth consideration was identification of participants. In this regard the focus group from both of the urban centers was consisted of a systematic random method, i.e. 6 from users and 6 from non users of contraception to know about the their behavior about the reproductive health and use and non use of contraception.

4.5.2 Selection of Women representative members

To make it real and ideal representative of the population, one focus group in each urban center was conducted. The size of both selected focus group was 6-12 members from each urban center. Four focus groups from the resident's communities, i.e. non users, and users from clinics the proportion was 50:50 i.e. three users and three non users women in reproductive age were randomly selected from urban centers and from where the quantitative survey through questionnaire was conducted. To make it real and

representative one focus group in each district was randomly selected from reproductive health clinics and from community. The size of both selected focus was maintained to six eight members.

4.5.3 Selection of participants from Women Health Centers.

Two focus groups from health centers were selected. One focus group was interviewed from the staff member of Khyber Teaching Hospital. Another focus group was selected from Lady Reading hospital's Peshawar Reproductive Center. Urban Kohat was represented by RHC, Liaqat Hospital. The size of each group was nine in number and composition of each group was based on the idea that at least one member should be taken from each sub center which are involved in these activities.

4.6 Operation of Focus group interviews

The questioning route interviews play very important role in conducting focus groups interviews. Questions are the heart of the focus group interview, and fore thought must be given to develop questions. The questioning route of a focus group interview will definitely include less than ten questions and around five to six (Kreuger, 1988:59).The following questions, were included in the questioning route of focus group interview. Questions are the gist of focus group interviews, which were asked in properly. Then questioning route of focus group was asked definitely.

Following ten questions were asked to know about the socioeconomic and cultural factors effecting reproductive health.

- 1- What do you think about age of marriage?
- 2- How do you feel about husband age of marriage of women?
- 3- What was highest class you passed at School or College?
- 4- What is your family monthly income from all sources?
- 5- To what extent would you tell about sex preferences.
- 6- How often a husband should take part in household activities.
- 7- Do your husband allow you to participate in different functions and shopping?
- 8- How for women should take part in decision make process?
- 9- What do you think about use or non-use of contraception?
- 10- How is health provider attitude regarding women sickness?

4.7 Process of the conducting focus group interview.

Following steps were adopted to conduct focus group interviews.

- 1- Selection of moderator.
- 2- Selection of location
- 3- Procession of focus group interviews.
- 4- Beginning the Focus group interviews.
- 5- Precautions about the quality data.

4.7.1 Selection of moderator

The researcher helped with a lady researcher who worked as a moderator. The lady had more than twenty years research experience in conducting research with development agencies. The moderator has vast experience of working with women on health project in NWFP. The moderator had lot of working experience in public and private sector with recognized national and international organizations that have been working for the national development. She has a lot of experience in working within women community at gross root level. More over the moderator also has vast experience in designing and organizing training. She has adequate knowledge on the topic of discussion.

4.7.2 Selection of Location

Selection of location is important for discussion with community members in walled house because of privacy for women in a culture like NWFP. The focus group members from health agencies were interviewed. Members from health agencies were gathered for conducting a meeting in a room of reproductive health center, where participants were facing each other. More over efforts were made to maintain eye contacts among all participants spaced equally and women were acting as interpreter.

4.7.3 Processing of focus group interview

The moderator greeted the participants on arrival. A small talk just prior to beginning the group interview was encouraged by the moderator to create a warm, comfortable and friendly environment and put the participants at ease. The assistant moderator was entrusted the duty to welcome the participants at the door and bring them in the gathering

4.7.4 Beginning of the focus group interview:

Interview was started with following pattern of introduction

- 1- The welcome
- 2- The overview of topic
- 3- The ground rules
- 4- The First question

The moderator started by saying Good morning (Aslam-o-Alakum) and welcome to this session. Thank you for taking a time to join the discussion, and also telling the purpose of discussion. Respondents are selected randomly to have certain thing in common that are of particular interest to us. Today's informal discussion is related to women reproductive health problems, their perception about the no of children, women participation in decision making, fatalism attitude of health provider and empowerment of women

Following instructions were given to participants while discussing the problems. There are no right or wrong answers, but rather differing point of view. Please feel free to share your point of view if it differs from what others have said.

Before beginning let them remind you that some ground rules as given below.

- ❖ This is purely a research study
- ❖ Please speak up but only one person should talk at a time.
- ❖ The session is under recording, because we do not want to miss your any valuable comment.
- ❖ You assure you complete confidently and there will be not any name attached to comments
- ❖ The session could last about an hour and a half and there will be no formal break. However, feel free to leave the room if you wish to stretch, but please do so quietly.
- ❖ Please avoid smoking in the room during the session.

The deductive process (from general to particular) that establish common base for communication among the participants and set the climate for more focused question. The moderator started the discussion. Well, let's begin. Let's find about more about it

each other by going around the room one at a time. The following question was asked to break the ice:

What did you think about the women reproductive health within socio economic and cultural framework? How much are you aware of it. What is your experience about the RH program? This discussion was started in this way.

Focus group discussion was recorded in two ways, one by tape recorder and another by taking notes by moderator and her helper in order to avoid interference with the spontaneous nature of group.

The recorder was placed up in plain sight to avoid the creation of un-necessary secretive atmosphere that could in habit the participants. The participants were encouraged to speak. In addition extra audiocassette were also arranged to shoot the trouble if aroused during the recording.

4.7.5. Pre caution adopted to improve the quality of data.

Following steps were taken to get high quality data and to ascertain rich information's.

- 1- The neutral and easily accessible places to community residence were selected for conducting focus group interviews.
- 2- It was also kept in mind that the selected spaces should be quite and free from interruption.
- 3- The participants for spaced equally around table.
- 4- The moderator greeted the participant's arrival in order to make feel comfortable.
- 5- The questions were arranged in a focused sequence. The most important aspect was to go from general to particular (funnel sequence) was adopted.
- 6- The open-ended questions were asked in order to allow the participants to answer in various dimensions.
- 7- The dichotomous questions could be answered with a simple "yes" or "no" responses were avoided.
- 8- The use of why was minimized in order to avoid the rational answer.
- 9- Consistent background information to each participants about the purpose of the study was provided to minimize the tacit assumption

- 10-The context of the questions was established so that those participants were mentally ready to respond. This was accomplished by introductory comments by the moderator
- 11- Important questions (question for which the idea was cued by comments and perception of participants in the flow of focus group interview) were also asked in the last five minutes of the discussion
- 12-Two essential techniques (pause and probe) were used in order to solicit additional information. The problem involved: would you explain further? Would you give me an example of what do you mean? Is there any thing else? Please elaborate what do you mean by it, and I do not understand etc.
- 13-The efforts were made to control the experts, the dominant talkers, and the ramblers by using different techniques and tactics. The shy participants were encouraged to participate
- 14-The focus group's interviews were recorded through tape recorder to capture actual word of participants. Other necessary arrangements were made in this context to avoid unnecessary problem. In addition, immediately after the recording the tape recorder was checked to sure it is proper functioning
- 15-The discussion was properly concluded. First of all tape-recorder was first turned off and thanks the participants for their assistance. Then it was asked from participants, "Do you think we have missed any thing in the discussion"? When participants replied in affirmative. Then moderator thanked them and formally declared the closing of the session.

4.8 Analysis of focus group interviews

The data analysis mean examining, categorizing, tabulating and recombine the evidences to address the entail proposition of the study. It was recommended by Krueger (1988:112) that the moderator should also do the analysis if possible because moderator has discussion, interaction with participants and exposure to problem at hand. The analysis process began during the pre session talks. It was observed that many women were well aware with the problem this was also considered during the later analysis.

The analysis was done in a sequence and efforts were made to make it systematic and verifiable. In addition, efforts were made to filter out perceptions, expectations and

personal opinion in to the signals transmitted by participants' focus groups discussions. The following steps were adopted for the sequence of data analysis.

- 1- As soon as participants left the discussion location, the tape recorder was checked to ensure that it captured the participants comments it was quickly determined. If the tape had sufficient clarity and volume to be useable for more detailed analysis.
- 2- A complete summary of interview was prepared soon after the completion of interview session. All the summaries were red in one sitting session and notes of potential trend and pattern relating to one question were made, strong opinion was noted.
- 3- After the completion of focus group discussion. All responses to particular question were packed in one place on the second tape. After words a backup master copy of the tapes were made for safekeeping. As the last step of the data analysis the summary description, illustrative courts and interruption were prepared.
- 4- The tapes were listened on a double deck cassette player and relevant comments were copied on the second tape. After analysis of summaries, all responses were packed on one place. A back up master copy was made for safe keeping the records.
- 5- The next step was taken to listen to second tape. All responses to a particular question and significant quotes typed on computer. This act helped a lot to categorize and rearrangement of statement for analysis.
- 6- As a last step of the data analysis the summary description, illustrative quotations, and interpretations were prepared.

During the analysis, the considerations were also given to the factors like words, the contexts, the internal consistency, and the specificity of responses and the purpose of reporting.

The important questions were asked and many new ideas among from the interviewers were used as basis for reporting the results. More over the result are discussed in a group sequence.

4.8.1 Respondent's view about education:

Participants had the opinion that education can bring about change in behavior pattern of community. Education gives new norms and values through cross cultural studies and knowledge about new things, which has been changing with the passage of time. Innovation and invention are leading towards change in society. Education introduces new norms and assimilation of alien behavioral pattern, which is beneficial for human beings.

The participants were asked about the occupation of women educated person were in favor of women education and as a result the role play by educated women was pivotal for the development of house hold and community along with understanding reproductive health issues. Education of spouse was in obvious factor for determination and dyeline of sex of their children and communication on important matters like no of children and empowerment of women one participant said “without education a women cannot understand reproductive health problem properly particularly in traditional societies like Pakistan and Pashtoon culture even more rigid”

4.8.2 Focus group respondents' views about occupation:

Any of the occupation plays very important role in changing the behavior of an individual in community. Interaction within group and out of the group effects on personality. As a result, there is change collectively. Different types of occupation have the quality to change attitude regarding innovation and acceptance of new values acceptance. Education and occupation can change acculturate the behavior pattern and create norm fullness in society.

The participants discussed about change in sex roles; it was discussed that how decisions were made and how labor in family should be divided. The important point raised in the discussion was related to the patriarchy and egalitarianism actually exhausted the difference of attitude that exists in family system. The point that was highlighted related to rationale of division of labor in different context. The role changed with passage of time was inevitable, the wives some times were bread winners; when asked about the role in family, women preferred maternity over paternity; but majority of the debaters favored the natural role mother's were playing. One of the users of contraception said “traditionally depend roles for males and females need to redefine,

because the women role as mothers always devalued”, one of the non-users said that women prime duty is to bear and rear children along with conjugal loyalty of women should remained at home to fulfill their roles”.

4.8.3 Perception about effect of family income:

The views of participants about family income and gender roles described that with increase in family income the environment of communication developed and women are given participation in decision-making process. The spousal relation ships are conducive as a result. The contraceptive use increases and the conservatism decreases. Participants were asked about the sources of family income that they had the opinion that had of the family was main source of earning but people of lower and middle class females to some extent contributed in the income of a family. One of the participants said that “women economic autonomy enhances their ability to participate effectively in decision-making process regarding family and non family matters like family size, contraception and reproductive e health issues”. The mostly non users were of the opinion that women should remain at home to look after children and performing household chores which is their prime duty. One non users said “women should not seek employment outside the home because it is prohibited in Islam and also against pashtoon values and ideology” she further said “there is no blessing of God is women’s earning”.

The group viewed that women status with low or high income was an important determinant of family size. They pointed out that, those Pakistani women who had been enjoying good status have small family size and more use of contraception as compared to the women belonging to the poor socio-economic status.

It was described by the group of participants that the role and status i.e. with low or high income and important job of her or her husband of women could make any program regarding family size planning was totally related to their role and status. They argued that fertility depends upon socio-economic factors that effect women’s choice of contraception in urban and suburban areas.

4.8.4 Feelings of participants about the changes occurred to demographic aspects:

The participants were asked several questions about the demographic and social changes occurred due to impressive policy measure mass media and consciousness of society and community based on governmental and non-governmental organization

working for the betterment of women in general and their reproductive health in particular.

4.8.5 Family size preferences:

Several participants from the community groups and implementing agency groups strongly felt that number of individual per household group was important for consideration about their health. The role of man in agreeing size of household was important in this context. Another aspect of reproductive health was education of children and spouse that was an obvious factor for determination of sex of their children. The participation in decision-making concerning number of children, that was possible with better communication of spouse.

The debate regarding family size and type of family was interesting in terms of opinion, "far and against" opinion of women taking part in discussion. The problem of number of individuals in family was discussed. The important aspect of family related matters including fertility in family. The nuclear families as compared to joint families had higher fertility, both in the rural and the urban areas. It means that trend in nuclear families is getting large, and the joint families are reducing with the passage of time.

Family size and sex preferences among women, who were not educated, favored large family in urban areas. The majority of the women in focus group indicated high sex preferences and large family size. One of the non-users said that "God is creator and provider. God decides the size of family and sex of child. Man is helpless before the will of God. Any strategy for preventing birth is sin. It is beyond the humans to decide what should be the family size".

4.8.6 Sex preferences:

In the opinion of many participants during the discussion, they discussed the processes of change in cultural pattern that has been leading towards non-discrimination of their baby sex. Those people in community who have traditional behavior has always been stressing the values of gender values. Such nuisance values have little effect on attitude of male sex of baby. Such type of behavior is regarded fatalistic, non-religious and superstitious. The attitudes of public have been changing from fatalistic to non-fatalistic because the belief based on destiny has partial importance. Such belief was miss perceived and many respondents were agreed with it. One of the participants from the

dwellers of rural Peshawar replied that he doesn't bother about the type of sex of his baby and also had belief upon the change in norms of society regarding baby sex. Most of the community members were of the view that participation of women and decision-making process is important regarding such debates. One participant from rural area of Peshawar said that "Children are blessing of God particularly male children. A male child guarantees the family line and makes family strong. The old age security is provided only the male children to older parents because daughters have to go to their in laws family after marriage".

4.8.7 Perception regarding marriage pattern:

They had the opinion that age at marriage of spouse should be younger because this young age children become early mature and facilitate the family.

The group was not in favor of late age at marriage of girls, because they referred cultural norms of the local areas. They referred that women with the late age at marriage would have more problems in childbirth. They described and suggested that girls with too early age and too late age at marriage were twice as likely to die from childbirth compared with women in their twenties. They were agreed with the idea that indeed, more adolescent's girls die from pregnancy – related causes than from any other. One of the participants from rural Kohat said that "It is prime duty and obligation of the parents to marry their daughters when they attain their puberty. The local cultural and religious values support the early age at marriage for daughters."

4.8.8 Feelings regarding infant mortality:

Most of mothers and infants died due to non-availability of drugs and lack of knowledge about her delivery pain to mothers. Therefore, the main cause of infant and mother's death was due to insufficient reproductive health facilities. Infant mortality was related to many causes like young age of women, inadequate facilities of tuba ligation, poverty, and norms of home delivery and attitude of health providers.

The group had the opinion that those local areas where many families were, living below poverty line with poor nutrition of mother's, in turn affected fetal nutrition and growth and thus lead it to infant mortality.

Some individuals in the focus group stressed that shorter intervals are associated with an increased risk of premature birth, but others opposed such association. Both

premature delivery and fetal growth retardation would result in low-birth weight babies, who were at greater risk of dying in infancy. One of the participants from urban, Peshawar expressed that “Closely spaced many pregnancies which is supported by the cultural values and young age marriage for females are main causes of infants death.”

4.8.9 Gender roles change:

The participants were asked, “To what extent changes occurred in community regarding gender role and conservation” most of the participants from the all community stated that there seems change in women roles in spousal relation ship, decision making and in contraceptive use. The residents threw light on the burning issue of women empowerment. The situation becomes grimmer because of insufficient quality and availability of reproductive health facility. Most of the participants from the group of Population Welfare agencies told that implementation of the Population Agencies were not sufficient.

Focus group had the opinion and they added that by restricting women’s physical movement, limiting their education_and failing to provide them social support for birth control and encouraging women to produce male heirs were major constraints in achieving desired population targets in developing countries. In present age, women are reluctant to adopt such course of action that is total misconceived and blind in its character. One participant viewed that “Men roles as bread earner are superior than women’s roles. Performing household chores, bearing and rearing children, looking after the elderly family members, unquestioned husband’s loyalty are responsibilities of women in Pakistan particularly in NWFP”.

4.8.10 Communication on family matters:

During the discussion with the participants from population agencies, they opined; that the mobility of the women and children has significantly increased. Among the spokes persons and leaders from both groups i.e. from community members and officials from health and population welfare department had the opinion that spouse were always in trouble because wives and husbands always conflicting upon no of children, and his wife had reproductive health problem. “My wife always blames about the number of girls’ children”. The improvement of women has several effects on the community and social system as a whole. It reduces dependencies and leads to self -sufficient family.

Communication in decision-making in the opinion of group was an important factor in the process of making a choice between two or more alternative and then involved negotiation and proper communication with each other. Decision-making as an integral part of the process that a couple should use for the size of family and number of children as they negotiate their path to parenthood, and the decision of parents was always multi-layered and complex.

4.8.11: Perception regarding use and non-use of contraception:

Participants from community group were asked about the number of children they mostly favored in few children and no objection on the sex of their child. It was important to get education and use contraception, which is not against the religion.

Majority of the respondents were in favor of modern contraception and opined in favor of their effectiveness when compared with traditional methods in preventing pregnancy in women in focus group. Those who used modern contraception appreciated their effectiveness and liked to use in future.

The reason is that most of women have been living in traditional families with limited access to education, health and family planning due to socio-cultural norms and restrictions. It was observed and discussed that women's small proportion in the focus group opposed the use of contraception and were in favor of the discontinuation of certain contraception methods because of their side effects.

At the end of discussion most of respondents in focus group agreed the use of contraception provided, they are counseled and guided properly in this regard. While some participants opposed the use of contraception on religious ground. One participant from rural Kohat said that "Use of contraception is prohibited in Islam. Its use against human dignity and its use is shameful for humans and also against the will of God".

Discussions on Family income and Family setup: These variables were discussed in detail in focus group, that how religiosity and conservatism effect on reproductive health of women. Majority in focus group had consensus that a family with high income had no belief on fatalism, and therefore favor in few children.

Attitude of health providers and health facilities: Most of the participants had excess to health staff but the attitude of health providers was in different. The prevalent feeling was that no of reproductive health centers were very few and staff was not very

much cooperative. But in case when they are given fee they treat the patient with interest. It showed indifferent attitude of health workers of communities.

Community groups' participants had the strong opinion that women education, women age at marriage and husband wife relationship are the important variables differentiating users from non-users of contraception. They further elaborated about basic right of all couples and individuals to decide freely. The couple had responsibility about the number, spacing and timing of their children and to have the information and means to do so. They have the right to attain the highest standard of sexual and reproductive health.

They had the opinion included their right to make decisions concerning reproduction and use or not use of contraception free of discrimination, coercion and violence, as expressed in human rights documents. One participant said that "Health centres are situated for away homes. Transport is not available. Beside these problems, the negative attitude of health providers regarding counseling and purchasing of medicines is the main problem. Privacy and confidentiality are not maintained by the health care providers. In the insecure uncondusive and embarrassing environment, it is extremely different for Pashtoon women to discuss health problems particularly reproductive health problems".

Presents feelings about behavioral changes were leading towards the change of attitude due to change in socio cultural structure. Few participant had the opinion that family size preferences is leading toward ideal family size consisting of 2 to 4 children due to the fact that infant mortality could reduce the size of family. Many people in the traditional society want boy because of owner of property and they like to mutate their lands to male children because they are true owners of their father property. Such a society where rule of private property is practicable in such a society/community people wants male children for their safety of property and avoid female baby.

4.8.12 Perception about Conservatism:

Participants were asked about the fatalistic attitude and depending upon fate and luck. They had the opinion that every thing is found in destiny because of misperception and incomplete knowledge about the religion. The behavior of group some time reflected untrue perception about religion and fate. However, few participants who were highly

educated and knew true spirit of religion they elaborated that fate is not something which is against the deeds and actions of human beings.

Majority of focus group people had the opinion that most of the women experience powerful pressures to “prove” their “femaleness” by becoming mother. At the same time, women and their partners could also be influenced by the social and economic reality of the world around them. “A woman did not simply “got pregnant” and “gave birth” like the flowing tides and seasons. She did so under the constraint of material conditions that set limits on “natural” reproductive processes”. For many couples this would result in the decision to have a large family.

4.8.13 Religiosity and fatalistic attitude:

Few of the respondents strongly disagreed regarding the idea of destiny and work to plan. Majority favored advance planning of family. Therefore, the partial believe upon the value of old cultural aspect of religion and culture in this connection. They had belief upon the statement of holy book, which has not been briefed properly to masses regarding reproductive health. Therefore, they did not think contraception as means to killing the child.

Islam has given clear idea regarding offspring and described that as and when menses was stopped, and conceiving started then contraception was prohibited religiously. If withdrawal practiced often and on then there was nothing sinful,” “many of individuals in groups responded”. One non-user of contraception from rural Peshawar pointed out that. “It is useless to plan in advance, every thing has been decided by God already. What is happening on this earth, it is predetermined”.

The community is organized and united now it was expressed by many participants because they were in favor of education of women and against the fatalistic behavior therefore they perceive that normative cost can be addressed by the provision of facilities for women concerning their behavior about the type of gender they produce. Feelings the participants about the gender role changes occurred in social aspects.

Many of them had strong belief that fear; shame and lack of resources inhibit adolescents from seeking safe and early contraception on one hand, and from seeking care when complications occur on the other.

4.8.14 Perception of respondents about normative cost:

The community participants were asked about the side effects of contraception they opined that it is difficult to practice such things because society never recommends and appose it if any person of the community thing and practice such things the community creates hatred against such actions. Because such norms or not in practice within traditional society.

One of the respondent as a participant had the opinion that the trend has been changing with the passage of time due to education, mass media and better communication among the spouse on such issues, which have dominant effect on women health. Nevertheless, few respondents were not satisfied with the policy of mass media.

4.8.15: Respondent's view about the physical cost of contraceptive:

Physical cost and related matter were discussed with participants they had the opinion that time, distance and money was three important factors related to physical cost of contraception. Time was affordable by common person provided that patient could afford it. Different health center were facilitating and providing of such drugs and other material for reproductive health.

Participants described and discussed that unluckily health system and health facilitators have not been serving the community truly because low-income patients could not afford high fee charges of health providers.

Those families, who migrated from rural to urban with low income and lacks of transportation facilities at the time of emergency, were facing many problems. Those who had conservative behavior concerning availing maternity health facilities and the affordability of contraception were facing many problems.

As far health workers were concerned they were bound within social and cultural limits of society. They could not deviate from basic norms practiced in society; for example, taking steps toward abortion are strictly banned in society. These norms are practiced due to religion and culture. Thus, such practices and use of contraception for unmarried pregnant females is crime for them and for those health providers who treat them. In fact, treatment of abortions is not permissible in Pakistani law and culture; if such action were taken then there would be liability against such persons.

4.8.16 Perceptions regarding attitude of health providers:

Respondents had the opinion that health personnel could play dominant roles regarding treatment and counseling to expected mothers before and after delivery. Mothers and children are always in desperate need of help at the time of emergency. Many mothers and infants could be saved from death after birth, if they become sick or any complication regarding health emerges. They could be treated during emergency if doctors and staff are available near sick individuals. Community had strong belief in this context that, health personnel could take part in solution of sick mothers and infants' problems. Health personnel, specially the health providers and health workers could provide comprehensive and high quality reproductive health services to masses; that was basic responsibility of health workers in general and physicians in particular. The best way to guarantee reproductive health services was to meet the needs of community and to involve community in every phase of development of those services.

The health providers; the contraceptive counselors are required to prevent pregnancy at young age and to improve their sexual and reproductive health statuses. They should pay special attention to adolescent sexual and reproductive health needs.

4.8.17: Satisfaction level about the provision of health facilities:

The participants from community residents and population welfare agencies were asked that how much they were satisfied with the provision of reproductive health facilities. The situation asked at Mohallah, local area, tehsil and district level and several participants from the community groups strongly felt that conditions of reproductive health facilities need to be improved and they were not satisfied with most of the reproductive health facilities. It was due to deficiencies of RH center at district and women health center at tehsil and Mohallah level. The participants perceived that health systems in general and reproductive health system should be remodeled by inculcating new and efficient institutions must be established at different central points in urban centers, where there should be active staff to address the needs of sick women of every age. Youth centers for their problems need to be established in first instance. Many population welfare personal also agreed on the concept of increasing the number of population welfare institution, where trained nurses and doctors must be present round the clock, to attend the emergency situation at the time of delivery and any other

complication. One of the participants said, “I am totally unsatisfied from the health facilities provided by the doctors at the health centres. Doctors provide no medicine to us while we listened that Government has provided medicines for us. The doctors and health centre personnel sell medicines in the market for earning money”.

4.9 Summary and Conclusion:

The reproductive health system was implemented since the creation of Pakistan. Because of drastic growth of population, the facilities have become deficient in Pakistan and NWFP. The participants of FGDs suggested same measures for the improvement of reproductive health programme of the province NWFP. They included in their discussion that there should be provision of reproductive health facilities and community facilities relating to reproductive health. The provincial population department should implement its plans and feedback should come from community through the research studies. Changing pattern of society should lead toward more consciousness about reproductive health facilities. It is possible through addressing the problems of women folk and over all objectives concerning such problem that is to improve the health and socio cultural environment and also improvement of economic level of community.

The population welfare department in NWFP province has improved a lot but focus group interviews and population welfare program implementing agency revealed the following: The participants of both groups stated that over all improvement in health institution have taken place but there is need of further improvement in health institution and also awareness about the reproductive health problem through mass media and with the improvement in socio economic conditions of community may lead toward improvement of people through such program; like programs of family planning and free provision of contraception at health clinics.

It is also important to note that cultural system and behavior pattern of health providers lead towards reluctance in behavior of sick women toward attending such centers, which were treating at the time of emergency. The prevalent feeling of majority of participants both from the community and from the population welfare agencies was that women were not very much satisfied with the reproductive health facilities provided by the government. There is dire need to address the problems of the poorest of poor with distributive justice and equity in providing health facilities.

5. Introduction:

General characteristics:

The chapter is divided into two sections the first section consists of simple analysis with percentage, and the second section consists of bi-variate analysis. The basic aim of the chapter in study is to analyze reproductive health in socio economic and cultural framework and its various components affecting population growth and how to plan a required family size. It also explores degree of relationship of socioeconomic variables with reproductive health. As every one knows that man is the prisoner of society, the individual behave in collectivity and groups according to approved pattern of behavior/norms in a given system; the most important group is the family. Thus family is basic molecular unit, in which one generation is replaced by another generation. The basic unit of society' has been passing through reproduction processes, which contributes towards growth of population (Rukanuddin, 1988).

Future population growth of Pakistan could be determined by examining the couples reported family size, their demand for children and measuring their gender preferences. The Pakistani society is considered to be traditional patriarchal in nature with respect to its family structure and fertility behavior i.e. using or not using contraception (Naushin, 1997).

Pakistan is among those developing countries where family size norm have remained very high. Many countries with equal socioeconomic status have achieved desired family size norm and lead to population stabilization.

The general description regarding socio-economic, demographic and cultural variables affecting reproductive health of community in study area is given in this chapter. It included education of respondents; occupational status, husband's education, and wife's occupational status along with family income and marriage pattern are described. The demographic profiles of the respondents in terms of their current age, age at marriage, children ever born, number of living children, and the number of children died. Reproductive health problems and attitude of health providers are discussed.

Gender roles and relationship, religiosity, use or not use of contraception, cost of contraception, and health provider's attitude with data, and their percentage also discussed.

5.1 Socio- economic, cultural& demographic variables:

Ages of Respondents

The table describes the age of the respondents. Large family size indicated that early marriages of women in study area were at high practice that was leading toward a large family size.

Table 5.1 Ages of Respondents

Age of Respondents	Frequency	Percentage
15-25yrs	141	19.58
26-36	376	52.22
37-above	203	28.00
Total	720	100%
Statistics	Mean: 32.11	SD= 7.093

The above table showed that 19.58% respondents' age i.e. length and span of life was between 15 and 25 years. Whereas 52.22% respondents' age was between 26 and 36, the remaining 28.00% respondents were at the age of 37 years and above, the mean age was 32.11, with standard deviation 7.093 years.

5.2 Age of Husband:

Beside the age of women who got married in early age had dominant affect on her health; the age of husband also plays an important role in determining family size.

Table 5.2 Age of Husband

Age of Husband	Frequency	Percentage
15-25yrs	70	09.72
26-35	322	44.72
36-45	276	38.33
+46	052	07.22
Total	720	99.99
Statistics	Mean 35.18	S D 7.471

Similarly, the age of the husband indicated that 9.72% husbands were at the age of 15 to 25 years; and 44.7% husbands were between the age of 26 and 35 years, Whereas 38.33% husbands were between the age of 36 and 45 years and 7.22% husbands were above 46 years. It was reflected from the above discussion that majority of the husbands were between the age of 26 to 35 years. The mean of husband's age was 35.18 years with standard deviation 7.471 years respectively.

5.3 Respondent age at marriage:

When the age at marriage is low that would lead toward high fertility in family.

Table 5.3 Respondent ages at marriage:

Respondent age at marriage	Frequency	Percentage
15-20yrs	383	53.19
21-26	270	37.50
27-45	67	09.30
Total	720	99.99
Statistics	Mean 21.30	SD 3.698

Age of mother is related to pregnancy; the data in the above table No 5.3, showed that majority of young women with 53.19 percentages were married at the age of 15-20 in the study areas, the younger age is fertile age.

The variable respondents' age at marriage (a bond/contract between male and female) showed that majority of the respondents married at the age of 15 to 20 years, whereas 37.50% married at the age of 21 to 26 years, and remaining 9.30% women were above 27 to 45 years of age. It is concluded in study that majority of respondent's age at marriage was among 15 to 20 years, the mean of respondent's age at marriage was 21.39, with standard deviation 3.698 years. It can be said that marriage pattern is young and universal.

Tuseef (2001) described that female age at marriage in Pakistan has gone up in some districts of NWFP over the last two decades beyond the legal age at marriage indicating the changing values marriage. In Pakistan, particularly in NWFP the pashtoon values support and promote the early marriages for female. They believe that when a girl attains the age of menarche (first mensus), it is the parents' prime responsibility to marry

their daughter.

5.4 Husband age at Marriage:

The study also disclosed that husband i.e. males were higher in age at marriage as compared to his females spouse. The cultural trends play very important role in determining male age at marriage and age at marriage is an important determinant of reproductive health.

Table 5.4 Husband age at Marriage:

Husband age at Marriage	Frequency	Percentage
15-20yrs	151	20.97
21-26	334	46.39
27-45	235	32.63
Total	720	99.99
Statistics	Mean 24.40	SD 4.480

The data in the above table indicated that husband's age at marriage was between 15 to 20 years, i.e.20.97%. The data showed that 46.39% males/husbands were at the age of 21 to 26, and remaining 62.3% were among 27 to 45 years old. It is found that majority of the male got married between the age of 21 to 26, and most of females got married before the age 20 years. The mean age at marriage with standard deviation was 24.40 and 4.480 years respectively.

It is general belief in traditional societies that young age marriages are more benefiting than relatively old age; medical reports prove that more linear motility of spermatozoa, and also high count of sperms in young men is higher than aged persons, therefore young marriages are highly preferred in such culture for attaining a large family.

5.5. Respondent's Literacy:

Female literacy in the study shows the percentage of female population aged fifteen and above, those who can read or write. The less importance given to the female education than males, i.e. little literacy in female is retarding factor for the fertility transition. Experts agree that increased education is main determinant in females that

effect on the fertility rates. Women with more education tend to have smaller families due to more awareness about the method of birth control and also have paid employment.

When asked about the literacy from all respondents the table below showed that 40% respondents were not educated, whereas 60% respondents were literate.

Table 5.5 Respondent's literacy

Variable	Frequency	Percentage
Yes	431	59.9
No	289	40.1
Total	720	100

The above table describes that the percentage of the literate respondents was 59.9%, whereas the illiterate respondents were 40.1 percent. It is concluded from the above discussion in the table that, though the majority of respondents were literate and their proportion was 3:2; means that sixty percent respondents were literate and forty percent respondents were illiterate, showed that still in study area a lot of women need education. The cultural traditions in NWFP discourage women education

Table: 5.5a. Respondent's Literacy:

Respondent's Literacy	Frequency	Percentage
Illiterate 289	289	40.13
Literate 431	431	59.9
Class pass (who are literate)		
Primary 1-(1-5)	186	25.83
Secondary 2. -(6-10)	130	18.50
H secondary 3-(11-14)	70	11.8
Post Graduate 4-(15-16)	45	04.86
Sub total of literate respondents	431	49.86
Total	720	100
Statistics	Mean 8.9	S D 3.74

The variable literacy is defined as ability to read and writes; showed that 40.13% respondents were illiterate and 59.87% were literate. The mean of respondent literacy was 8.9 with standard deviation 3.47years.

5.6 Husband Literacy:

The literacy of husband plays an important role in the determining fertility. The literate husband prefers small family norms. A number of studies have been conducted, analyzed and viewed the lowering effect of increased education in males on the fertility rates. Men with more education tend to have smaller families due to more awareness about the problems of large families, and problems of mother and child health. Fayza, (2003).

Husband literacy:

Table 5.6 Husband Literate:

Husband Literate	Frequency	Percentage
Illiterate 92	92	12.77
Literate 628	628	87.22
	720	100
Class pass out of 628		
1--(1-5)	029	04.02
2--(6-10)	201	27.91
3-(11-14)	264	36.66
4-(15-16)	134	18.61
Sub total of literate	628	87.22
Total	720	99.9
Statistics	Mean-12.2	S.D-0.96

The variable literacy of husband indicated in the above table showed that 87.22% males were literate and 12.77% were illiterate. The literate males were divided into four subclasses. The mean of the husband's literacy (years of school) was 12.2, and standard deviation was 0.96. The table disclosed that high percentage of respondent's husbands were simple graduate. The second high percentage husbands were having secondary school pass certificate, and their percentage was 27.91 respectively.

5.7 Occupation of Respondents:

Women in Pakistan face much discrimination both in permission to work and at the workplace itself. Socio-cultural change in norms that were encouraged by increased

education in women.

Occupation or labor force participation rate is the basic indicator determining the level of occupational activities. It is believed that fertility rate inversely proportional to the level of labor force participation rate or working in any occupation. The link between increased participation of women in occupational activities or labor force and decline in fertility is clear. As women become earner, three things happen with which encourage the reduction in fertility. First, opportunity cost of having children increases such that women loose time from their career with increasing number of children. Secondly, the status of women also increases such that as earner they are able to take part in the family decision making processes. Thirdly, early marriages become much less feasible.

Table 5.7 Respondent's Occupations

Variable	Frequency	Percentage
House wife	530	73.6
Employee	125	17.4
Business	47	6.5
Business by sell	13	1.8
Any other	5	.7
Total	720	100

Above table described that majority of respondent were housewives means dependent on his husband and very low proportion was either employed or having business in one form or another.

5.8 Respondents monthly income:

Low socio-economic conditions increase the burden of work on women combined with no leisure and low access to health facilities leads to poor health and low nutritional status. Majority of women were not contributing towards household income.

Table 5.8 Respondents monthly income

1 No income/H wife	528	73.3
2 <30000	69	9.6
3 3000 to 5000	88	12.2
4 > 5001	48	4.9
Total	720	100
Statistics	Mean-996.25	Standard deviation:2045.498

The data regarding income, (mean of earning) of respondents disclosed that

73.61% respondents were housewives; whereas 17.36% were employees in one department or another. The data showed that 09.02% respondents were with the business occupation. It can be said that majority of the respondents were housewives, and, remaining 26.39% were employed.

The income level means the earning of an individual or group is economic indicator showed that majority of the respondents had no income, i.e. they were housewives with out any job, their percentage was 73.3%, and remaining 9.6% respondents' income was below 3000. 12.2% respondents income was up to rupees 5000 and remaining 3.5%, income was above 5000. It is reflected that majority of the respondents were housewives without any source of income generation.

5.9 Respondents Husband occupation:

The relationship between poverty and population growth and reproductive behaviour is pertinent. High population growth leads towards complexity and inconclusiveness in individual behavior leading to creation of problems. The relationship between population growth and poverty is complex. Arguments suggest that population growth and poverty are highly related and poverty links with economic status of individuals. So the variable occupation is vitally important to study reproductive behaviour. Majority of males in Pakistan are doing low paid jobs

Table 5.9 Husband's occupation

Occupation	Frequency	Percentage
Government employee	305	42.4
Agriculturists	34	4.7
Businessmen	111	15.4
Self employed	119	16.5
Unemployed	26	3.6
Any other	125	17.4
Total	720	100

Pakistan has been passing through economic boom with high rate of inflation; because of many factors including unequal distribution of wealth, economic deterioration, and social conflicts etc, which are leading towards unemployment and low purchasing

power. As a result, high degree of rural poverty is generated. In fact, more than 50% people have been living below poverty line in Pakistan (World Bank, 2003).

The data regarding profession of husband was concerned, the data on variable indicated that 42.4% were government employees, 4.7% were agriculturist, 15.4% were business men, 16.5% were self employed, 3.6% were unemployed and 17.4% were doing the job they liked. It is reflected that majority of the respondent's husband were government employees and very few of husbands were unemployed.

5.10 Family monthly income:

Table 5.10 Family monthly income:

Family monthly income	Frequency	Percentage
1 >5000	178	24.6
2 5000 to 10000	187	25.9
3 10001 to 20000	145	20.1
4 20001 to 40000	185	25.7
5 >40001	34,	4.7
Total	720	100
Statistics	Mean: 12670	Std deviation: 14775.287

The data showed that majority of families had low income. The variable given in above table indicated that 24.6% families were with the income less than rupees 5000; and 25.9% had the income between five to ten thousands. Moreover 20.1% respondents were with the income from ten to twenty thousands, and remaining 4.7% had the income more than 40 thousand. It is concluded that one forth of the respondents had low income, and about 5% had high income. The mean of the income was rupees 12670.00, with the standard deviation rupees 14775.287.

The (MICS 2002) survey found that the average income per day per capita of population in rural area is lower; whereas higher in urban area in NWFP and that income was equal to rupees ten to fifteen thousands approximately.

5.11 Type of family living in:

This table showed that majority of family structure was patriarchal but the tendency in large cities was toward the matriarchal family at low/negligible level. Traditional societies like the Pushtun society in study areas have been promoting the norms, which are based upon traditional behavior pattern.

Table 5.11 Type of family living in

Type of family living in	Frequency	Percentage
Nuclear	325	45.1
Joint	254	35.3
Extended	141	19.6
Total	720	100

This variable “type of family” is defined as group of persons living together showed that 45.1% were living in nuclear family and 35.3% were living in joint family; and 19.61.1% were living in extended family. It can be said that majority of the respondents were living in nuclear; thus the tendency was toward nuclear family. The data showed that majority of literate women like to live in nuclear family, thus the change in family structure was noticed, and type of family trend is leading toward change.

A study conducted by Saba (2003) showed that majority of newly married couples in Punjab and other urban centers in Pakistan, particularly woman liked to live with her spouse in a nuclear family structure.

5.12: You married within family or out of family.

Table 5.12 You married within family.

Variable	Frequency	Percentage
Paternal cousin	230	34.60
Maternal cousin	222	33.28
Near relative	123	14.54
Distant relative	103	12.23
Out of relative	42	5.35
Total	720	100

When they were asked about marriage within the family, 34.60% married with paternal cousin, 33.28 were married with maternal cousin. The findings indicate that majority of respondents prefer to get married within the family or near relatives. The cultural pattern leads to father's family. Therefore majority of them preferred patriarchal system of family, which is indicated in table 5.13 below. There is a tradition and norm in Pushtun society that they believe in kin system that is related to family bonds based upon strong and sentimental relationship; means they don't allow and like to get married in other families. Thus, respondents behavior clearly reflected that majority of respondents liked patriarchal family system. Because patriarchy is a norm in the society, in such a system father is a head of the family, and bread earner too. The table 5.13 reflects the behavior pattern of respondents in favor of patriarchal system.

A survey conducted by government in NWFP is called Multiple Indicator Cluster survey, (MICS, 2001) revealed that more than fifty percent families like to get marry their offspring within their kin families.

5.13. Set up of family you prefer

Table: 5.13. Set up of family you prefer

Variable	Frequency	percentage
Patriarchal	513	71.3
Matriarchal	207	28.7
Total	720	100

5.14: Reproductive Behaviour (No. of Pregnancies):

In many traditional societies like the society of NWFP, the preference for sons over daughters was quite prominent along with the desire for two children of each sex. Sons are thought to be future asset for economic productivity, and provide security in emergencies and as a conduit to carry on family name (MICS Report, 2003). The son preference seems to affect the behavior of couples relating to reproduction and as a result brought changes in fertility (Radheshyam, 2001).

Table: 5.14 No of pregnancies:

No. of pregnancies	Frequency	Percentage
1	54	7.5
2	110	15.3
3	115	16.0
4	133	18.5
5	102	14.2
6	93	12.9
7	63	8.8
8	39	5.4
9	11	1.5
Total	720	100
Statistics: Mean 4.43	Std Dev 2.261	

The mean of pregnancy was 4.43, with standard deviation 2.261 children; on the whole it is evident from the data that unwanted pregnancies were reported by majority of respondent who had more than five children.

The study findings indicate that more than 40% of women got pregnant more than five times indicating preference for large family size in the study area.

In one of the study, main question regarding family size and want of more children was found with reply from respondents that women were not in favor of more pregnancy and liked control births with the use of contraception, (Nushin, 2001).

5.15 No of live births:

The number of four live births the majority that respondents disclosed.

Table 5.15 No. of live births

No. Of live births	Frequency	Percentages
1	106	12.05
2	124	16.40
3	120	14.31
4	270	37.04
>5	100	11.20
	720	100
Statistics: Mean 4.20		Std Dev 2.089

The mean live births in this study are 4.20, with standard deviation 2.089. It is concluded from the table above, that the number of live births in family was four in number: starting from two and leading toward four i.e. from 2-4 are increasing.

Hakim et al. (2001) in one of the study in Punjab -Pakistan found that more live births affect the reproductive health of women means that family planning needs are not fully met which is matter of concern for policy makers.

The above table described that 20.8% of respondents had at least five live births and five percent found in category +5 had minimum live births. It was also found that births live with 2% pregnancies ended in stillbirth it was noted over one quarter pregnancies either mistimed or unwanted. The study further elaborates that 13% women wanted to delay or postpone last pregnancy. The results of the study invite the attention of policy makers, that family planning needs are not fully met. The best remedy and solution is to provide services to those women, who are in need of it, by enhancing contraceptive prevalence affecting fertility negatively. The study disclosed that reproductive health measures need improvement.

SECTION: B Family size and sex preference

5.16 Respondent wants of more Children:

In case of Pakistan childbearing pattern have tilted towards having large family size and limited use of contraceptives or family planning methods. However the decline in fertility rate from more than six births per woman in 1970,s marks the beginning of fertility transition to about five per woman in 1990,s and expected to continue in the coming years.

Table 5.16 Respondent want of more Children

Want of more Children	Frequency	Percentage
Yes	365	50.7
No	355	49.3
Total	720	100.0

The above table in study showed that more than 50.7% respondents want more children; where as 49.3 were not in favor of more children. Women in PRHFP survey were asked about out come of late pregnancy, whether it ended in live birth or in

stillbirth. It was found that 98% were live birth. It was found that 98% were live births with 2% pregnancies ended in stillbirth (Hakim et al: 2001). It was noted over one quarter pregnancies either mistimed or unwanted. The study further elaborates that 13% women wanted to delay or postpone last pregnancy. The results of the study invite the attention of policy makers, that family planning needs are not fully met. The best remedy and solution is to provide services to those women, who are in need of it, by enhancing contraceptive prevalence affecting fertility negatively. The study disclosed that reproductive health measures need improvement.

Nausheen, (2001) disclosed that unwanted child birth has dominant effect on reproductive health provided husband agrees in this decision because male in this society has power for proper decision. The main question regarding family size and want of more children was found with reply that women were not in favor of more pregnancy, (Nushin, 2000).

5.17: Husband wants more children:

The results of this research showed consistency of the research conducted previously. But the limitation of the study and result reflect that husband attitude have dominant role in decision making.

Table 5.17 Husband wants more children:

Husband want more children	Frequency	Percentage
Yes	318	44.2
No	402	55.8
Total	720	100.0

The response of want of more children by husband disclosed that 55.8 % husbands were not in favor of more children, whereas 44.2% wanted more children and the number of children the husband wanted mean is 5.56, and its standard deviation 49.7 is concluded from the table above, though husbands in the study have been favoring more children, but majority was not in favor of more children.

5.18 Number of boys

Table: 5.18 The number of boys

Number	Frequency	Percentage
00	2	.3
1.00	72	10
2.00	390	54.2
3.00	237	39.9
4.00	11	1.5
5.00	7	1.0
7.00	4	.1
Total	720	100

The above table showed that the number of two boys wanted by the family were in maximum percentage and number. The number of three boys wanted by husband parents were 39.9 percent and their number was 237. It is reflected from the above discussion that want of two boys were wish of every parents and respondents. Though, the second highest number of the boys wanted by the respondents was three in number. The result of the discussion was that majority of respondents and their husbands favored and wanted at least 2 to 3 boys.

5.19 Sex preference:

Table: 5.19 Percentage distributions regarding perceptions of Sex Preference:

Variable	S.A	A	No	D.A	S.D.A	Total
a. Women is not respected in family if she has no boy	32.4	12.8	.9	18.8	34.2	720
b. Male Children are preferred over females	17.4	22.4	4.2	43.5	12.6	720
c. More male children strong is family in society	16.8	22.8	7.2	40.8	12.4	720
d. Too' many girls are unwanted children	10.4	14.4	6.9	53.1	15.1	720
e. Family continue with male children	30.8	23.2	4.7	28.1	13.2	720
. Male children guarantee good husband wife relations.	5.6	17.9	6.1	56.3	14.2	720
g. Women get more respect with male children in family.	9.4	26.7	6.0	44.7	13.2	720

The above table showed that the family increased with decrease in social status.

Petchesky (1986) and Gordon, (1976), described social values as an important factor in birth control and family size, all over the developed and developing societies; the importance of social values was main factor in birth control.

The above table discussed about sex preference, and effect of normative system on son preference. There were many causes regarding sex preference. Few were discussed with the degree of preference.

The description about sex preference of a child was stated in the above table 5.1a. A woman is not respected in a family if she has no boy, 32.4% respondents were strongly agreed, and 34.2% were strongly disagreed, and 18.8% disagreed. It is viewed that behavioral change in society regarding male sex preference has been changing. Therefore majority of the respondents disagreed with a statement of sex preference. As for male child preference, female were concerned the 43.5% respondents were disagreed with the statement.

Third section of the question is related to male children provide strength to family, 40.8% respondents strongly disagreed with the statement but 22.8% are agreed with it. As for family continuity with male children and good husband wife relationships are concerned 56.3% respondents disagreed with the statement regarding husband wife relationship where as a family continuity with male children are concerned 30.8% respondents strongly agreed because it is a factual statement in our society?

There were clear circumstances under which family size need in Pakistan was subject to some element of social negotiation. However, it was essential that women participation, (taking part and sharing in various activities) was equal with men in the formulation and implementation of appropriate strategies. The labor force participation rates for females have been increasing over the years and it has increased from 13.72 percent in 1999-00 to 15.93 in 2003-04. It means that better educational opportunities changed social attitude regarding participation in household decisions, (Pakistan Economic Survey, 2003-04).

Uhlmann (2004) reveals in this paper and traces the effective gender roles regarding division of labor. The informants were both males and females and change in sex roles was discussed. It was disclosed, that how decisions were made and how labor in family was divided. The important point rose in the research related to the patriarchy and egalitarianism that actually exhausts the difference of attitude existed in family system.

SECTION: C Gender roles and relationship:

5.20: Husband Allows Activities:

Table 5.20 Husband Allows Activities

Husband Allow Activities	Frequency	Percentage
Often	149	20.7
Rare	351	48.8
Never	220	30.6
Total	720	100

The above table described, that high class had more participation in household activities, and degree of communication in lower class was low at every level. Gender role and relation include domestic chores; household activity, communication with husband, and participation in household activity reflected behavioral tendencies

Shah (1986) declares that women in Pakistan have little say in family decision-making. Men usually make decision about marriage, education, employment and health care for the women and not by the women themselves Women were supposed to clean the house, take part in cooking, child rearing and caring. The service to elderly is mostly the responsibility of males or head of the family. The percentage of the frequency reflected behavior pattern and relative change in system leading towards participation of male in study areas. The percentage reflected that 40.4% never took part in cleaning and 40.3% husbands took part in cooking in one way or another. The trend toward the child eager and caring has been so for changing because 55% husbands like to care children. It is important to note that caring the elderly is popular norms in society, because of its blessing for the family. Therefore, every head of the family liked to care elderly. Thus, 61% of the respondent's husbands like to response in positive.

Table 5.21 Gender roles and relationship: Household chores

Activities	Often	Rare	Never	Total
a. Husband take part in household chore	35.1	27.4	37.5	72.0
b. Husband take part in cleaning	39.6	20.0	40.4	720
c. Husband take part in cooking	40.3	25.0	34.7	720
d. Husband take part in child rearing	49.3	28.6	22.1	720
e. Husband take part in caring of children	55.0	25.8	19.2	720
F. Husband takes part in caring elderly.	61.0	21.8	17.2	720

. As for participation in household chores was concerned different strata have different behavioral tendencies; for example, high class has 47% participation whereas lower class has low participation. Household activity is the reflection of different strata found -in different class culture. As for gender roles and relationship is concerned, it discuss roles relationship of husband with husband was concerned, a high degree of activities and roles upper class i.e. 37.5% was never involved in household activities. Three options often, rare and never were asked with the following questions

5.22: Your husband can allow you in following activities?

Table 5.22 Percentage distribution regarding Participation:

Allow Activities	Never Minds	He allows with some restriction	Not sure	Not at all	Total
a. To participate in relative and friends marriages	30.8	23.2	7.1	38.9	100(720)
b. To take for shopping	28.1	36.3	8.1	27.6	100(720)
c. To practice half sleeve dress	19.6	13.2	16.9	50.3	100(720)
d. To take you to movies	16.4	6.0	19.2	58.5	100(720)
e. To participate in the neighbor's function	22.1	45.1	6.7	26.1	100(720)
f. Local health centre	32.5	45.7	2.6	19.2	100(720)
g. Local market	26.8	39.3	10.4	23.5	100(720)

The variable was related to the participation of women and openness of women in different activities. It meant that the communication between spouses reflected openness

or conservatism. For example; permission regarding participation in relatives' and friend's marriage was concerned, 30.8% respondents were allowed to take part, and 23.2% were allowed with restrictions; 38.9% were not allowed at all. It was concluded that the change in male behavior pattern concerning permission for females. The variable in the question was related to allowing accompanying him for shopping i.e. taking her for shopping, 50.3% were not allowing at all and practice of half sleeves of responded with restrictions like taking to the health center, local market etc. The restrictions were applied on women; that shows conservative and coercive behavior of husband.

5.23 Behavior pattern concerning participation in decision-making:

Table 5.23 Behavior pattern concerning participation of respondents in decision-making:

Variable	S.A	A	No	D.A.	S.D.A	Total
a. Household all decision should be taken by man.	14.7	19.7	8.3	48.9	8.3	100(720)
b. Women job out side home	9.6	30.4	9.6	38.6	11.8	100(720)
c. Man should not take part in domestic activity	4.3	20.7	23.2	41.3	10.6	100 (720)
d. Woman to bear and rear the children	11.1	21.9	9.0	38.1	19.9	100(720)
e. Shopping decision by man	5.6	20.4	17.8	42.9	13.3	100(720)
f. Women shouldn't take part in politics	7.6	30.4	11.7	20.4	29.9	100(720)
g. A married women should confine to home affairs	6.7	27.9	13.1	22.8	29.6	100(720)

As for, decision-making concerning household, men took decisions. 48.9% respondents disagreed with the statement, that is a change in the system, 20% respondents agreed, and 14.7% strongly agreed with the idea that household decision should be taken by men. The bearing and rearing is women's business but respondents disagreed with the idea by putting sole responsibility of women therefore they like to give share to male partner therefore 38.1% disagreed with the statement. The shopping decision by men were disagreed by respondents therefore 42.9% respondents disagreed with the idea of shopping decision by men.

As for job of women outside that is concerned 38.6% disagreed with the statement

where as 30.4% agreed with the statement and 9.6% had no opinion regarding job of women out side the home. It is concluded that a high percentage disagreed that women job out side home make no difference. The concept regarding participation of men in domestic activity 41.3% disagreed about the concept of working male partner in domestic activity. 16% were strongly disagreed with the idea of talking about-contraception with friends was objectionable due to cultural constraints and prohibited; therefore they could openly with their friends and relatives. Majority of the respondents 26.9% had no opinion; whereas 16.0% disagreed and 6.3% were strongly disagreed with the statement.

They also liked to play and take part in politics therefore 20.4% disagreed and 30% strongly disagreed with the concept of taking part in politics of women. As they also liked to participate in decision making process, they did not like to confine themselves only to the home affaires. It reflects trends of modernity and participation of women in related affaires.

5.24 Percentage distribution of variable Communication:

Table 5.24 Percentage distribution of variable Communication:

Variable	Frequent	Sometimes	Never	Total
a. About number of children	50.3	19.4	30.3	100 (720)
b. About family planning	44.2	25.1	30.7	100 (720)
c. About the side effects of contraception	44.7	23.2	32.1	100(720)
d. About spacing of children	43.1	24.4	32.5	100 (720)
e. About pregnancy problems	48.3	18.3	33.3	100 (720)
f. Place for getting contraception	27.2	45.0	27.8	100 (720)

Shah, (1986) disclosed that women in Pakistan have little say in family decision-making. Men usually make decision about marriage, education, employment and health care for the women and not by the women themselves.

Now the researcher would like to discuss about communication between husband and wife relating to some issue of reproductive health including; family size and contraception in the above tables. The communication about the number of children, the respondents frequently discussed about number of children and their number was 50.3%,

it means that they discussed and considered it as an important issue in family life. Therefore they also discussed to planning for the family and the percentage under frequent discussion on family planning is 44.2% they also liked to discuss effects on contraception and that is also discussed frequently and the percentage is 44.7%. As for the spacing of children was concerned; they liked to discuss frequently and the percentage is 43.1% regarding spacing of children. The pregnancy problem and place for getting contraception.

Contraception is also important issue but the most important is pregnancy problems, therefore the percentage of frequent discussion topic was related to the number and percentage reflected that 50.3% frequently discussed about number of children; 18.3 some time discussed and 33.3% respondents never discussed it. The place for getting contraception under discussion is some time by the respondents and the percentage is 27.2% frequently; 45.0% some times and 27.8% never response respectively.

SECT10N-D Religiosity

5.25 Distribution of respondents of variable religiosity and contraception:

Table 5.25 Distribution of respondents of variable religiosity and contraception:

Variable	S.A	A	No	D.A.	S.D.A	Total	Mean
a. Religious Aspects: plan in advance an against destiny	17.2	13.8	7.8	24.9	36.4	100 (720)	3.49
b The Holy Quran doesn't allow to limit family size	7.1	31.1	20.8	21.7	19.3	100 (720)	3.15
c. Contraceptive means killing the child	6.1	10.4	18.8	29.2	35.6	100(720)	3.78
d. Child bring with the food	6.8	31.8	7.2	42.4	11.8	100 (720)	3.21
e.It is sin to use contraception	5.4	5.3	13.9	39.3	36.1	100 (720)	3.95
f. Limit family size is useless and sinful	9.2	39.2	17.5	15.7	18.5	100 (720)	2.95
g. Large family is blessing of God	7.4	15.8	14.9	32.9	29.0	100(720)	3.60

Ashfaq et al. (1990) investigated the association between fundamentalism/religiosity and family size and sex preferences among women of the rural Pakistan. A random sample of 500 married women, aged 15-49 year living with husbands, was selected. The study revealed that religiosity is one of the major determinants of family

size. The education of spouse is the most important factor in lowering and decreasing family size.

The relationships of cultural variables such as husband and wife relationships and exposure to the mass media in terms of egalitarian and segregation roles, husband's permissiveness for his wife to participate in family and non-family matters and decisions and exposure to mass media, beliefs and values in terms of family size and sex preference, religiosity, fatalism and conservatism with contraceptive use and fertility behavior is investigated. Zafar (1993) and analysis found the strength of these predictor variables in predicting reproductive behavior such as family size and contraception.

Alam and Cleland (1981) analyzed by word fertility survey (WFS) data to examine the influence of religion on fertility differential and contraceptive use. They found the persistence of high and low contraceptive use in many Muslim countries including Pakistan, Iran, and Bangladesh etc. They argued that religion is an important factor in explaining fertility differentials. Ford (1945) also pointed out the importance of cultural factors all over the world for having children. He stated that human reproduction is a biological phenomenon supported by a belief system.

The topic regarding reproductive health described that how religiosity, (excessive devotion to religion) affected family size. Another important aspect was related to plan in advance and role of destiny. 36.4% respondents strongly disagreed regarding the idea of destiny. They favored advance planning of a family. Therefore, they had partial belief upon the orthodox value of religion and culture. In this connection, respondents had belief upon the statement of Holy Book that has interpreted the concept of reproductive health clearly, that neither kill your children with the fear of hunger nor kill your wives with obsessed behavior regarding the number and sex, ,but be balance. Therefore, they" did not think contraception as means to killing the child. Thus, 35.6% strongly disagreed and 29.2% disagree the idea, that contraception means killing the child. In other statement the idea of "child bringing with them the food" they also disagreed with the percentage 42.4% disagreed with the statement and 31.8% were agreed with it. Thus, the consensus developed that 54.2% were not in favor of the statement. It was noted that 39.3% and 36.1% disagreed and strongly disagreed to consider the use of contraception as a sin. The respondent also discarded it and they opined that to limit family size is not

sinful and therefore they did not consider large family as a blessing. Thus, 32.9% disagreed with it and 29% strongly disagreed respectively.

Socioeconomic conditions, religious belief and cultural values of society are other factors playing major roles in acceptance or rejection of any idea of innovation. During the planning process the facts are formulated in form of values, and then accepted in society. The whole process is the outcome of value formulation.

In the past efforts made for any activity without giving proper weight to social, economic, religious or cultural values have badly failed and resulted in poor contraception adoption. Shah and Mann (2003) described the case of assimilation of culture for the use of contraception in Pakistan.

Durr-e-Nayab, (1999) reported the cause high fertility due to non adoption of contraception and elaborated further by Robinson, 1966; Mumtaz, 2000; Rukunuddin and Hardeel1992; Raju, (1987) and Mehmood, (1977) reported that the pace of fertility could be retarded with the introduction Islamic education on fertility control that is possible with proper introduction of concept and clear idea of reproductive health is described simultaneously.

SECTION E: 5.26 Reproductive Health Issues matters relating Health Facilities.

Table: 5.26 Woman should get married at the age of.

Get married	Frequency	Percentage
Before age of 20 years	212	29.4
Between 21-25 years	396	55.0
Between 26-30 years	110	15.3
Between 31-35 years	2	3
Total	720	100

This table discusses about women age at the time getting married. Table reveals about the responses regarding the age preference at the time of getting married. Majority of respondents were in favor of getting married between 21 to 25 years. The norm of younger age at marriage has been changing with female education and improvement of status and empowerment of women.

**5.27 You ever have reproductive health problems:
Table 5.27 your reproductive health problems:**

a. your ever reproductive health problems		
Response	Frequency	Percentage
Yes	672	93.34
No.	48	6.66
Total	720	100.0

The above table described and discussed about the reproductive health problems prevailing in study area, 93.34% of the respondents had reproductive health problem in one form or another.

Table 5.28 Complication/issues:

Sr. No	Variable	Response	Frequency	Percentage
1	Bleeding	Yes	17	2.2
		No	655	97.8
2	Irregular menses	Yes	84	11.7
		No	558	88.3
3	Leucorrhoea /	Yes	120	16.67
		No	552	83.33
4	Uterus infection	Yes	45	6.25
		No	627	93.75
5	Inflammation/swelling	Yes	82	10.78
		No	580	87.22
6	Abortion	Yes	65	9.0
		No	607	91.9
7	Fallopian tubes problem	Yes	152	21.8
		No	568	78.9
8	Miscarriages	Yes	56	7.78
		No	616	92.22
9	Pregnancy	Yes	90	12.5
		No	582	87.5
10	Breast Problem	Yes	30	4.2
		No	642	95.8

The above table composed of many small cells in a large table, which discussed ten reproductive health problems found in study area; where every respondent woman had more than one problem of reproductive health. The table above revealed different types of reproductive health problems and complications.

These problems were found in one form or another. It can be said that respondents were facing many reproductive health problems including bleeding 2.2 %, irregular menses 11.7 %, and 16.67%, uterine infection 6.25%, inflammation 12.7%, abortion 9% , fallopian tubes problem, 21.8%, miscarriages 7.78% were facing breast problems, 4.2% were facing pregnancy problem and 12.4% were facing problems of miscarriage. It is important to note that leucorrhoea and fallopian tube problem was main problem other than uterus infection as an important sickness in study area.

The information collected on reproductive health the indicators include infertility, prenatal care, and place of delivery, post natal care, abortion, and breast cancer infant and child mortality. Some of the basic findings on the knowledge attitude and belief indicated that women seek medical care during pregnancy when they have illness and sickness. A high proportion of women had obstetric problem complication as reason for seeing a male provider to help, therefore their problem remained unsolved.

A number of questions attempted to determine the respondents perceptions about the complications regarding bleeding pre or post delivery or during the delivery elaborated different causes. Majority of them linked it with negative, fatalistic and superstitious behavior.

5.29 When woman have more chances of pregnancy:

It may also be noted that increase in unwanted fertility is due to lack of knowledge of regarding more fertile days, mean those days when female ova are more receptive and the chances of the pregnancy are high. The phenomena of unexpected pregnancy are very high in rural areas of NWFP and Baluchistan in Pakistan due to low knowledge about such phenomena.

Table: 5.29 women have more chances of pregnancy.

a. When woman have more chances of pregnancy			
Sr. No	Variable	Frequency	Percentage
1.	One or two days before periods	100	13.9
2.	One or two days after periods	203	28.2
3.	About middle	148	20.6
4.	Just any time	205	28.5
5.	Not sure	64	8.9
Total	Total	720	100

Several studies have analyzed the factors contributing to use of contraception, and the persistence of unmet need among Pakistani women (Casterline, Sathar and Haque, 2001). They have identified that the correct knowledge of the time during the month when a woman has more chances of pregnancy. This type of knowledge is imperative to divert unwanted pregnancies.

The above table revealed concerning, the chances of pregnancy; 28.5% respondents perceived as just any time, 28.2 % perceived it, one or two days after periods, 20.6% perceived that it is just in middle, before and after periods. The main focus of the table is knowledge regarding the days, in which chances of pregnancy are high. Whether, the spouse can fulfill the unmet needs. Majority of the respondents had little knowledge about it that, only 20.6 of the respondents correctly identified the time during which a women high chares to conceive means these type behavior pattern is not common and part of cultural norms.

Table: 5.30 your place of advice during pregnancy.

S.No	Variable	Frequency	Percentage
1	Lady doctor in hospital	298	41.3
2	FWC	258	35.4
3	Private Doctor/clinic	103	13.3
4	LHV	42	6.8
5	Dai	21	2.1
5	ANY other	8	1.1
Total		720	100

The table above indicated getting advice during pregnancy. The table showed that 41.1% respondents got advice during pregnancy from the lady doctor in hospital and 35.4% from FWC.

Table: 5.31 your delivery complications.

Variable	Frequency	Percentage
Yes	90	12.5
No	630	87.5
Total	720	100

The delivery complications are found in developing society like Pakistan. It has many reasons, for example deficient facilities, orthodox traditions and fatalistic behavior of community has been leading towards delivery complications. Such complication includes RTF, post partum problem, fallopian tube problems and abortion etc. The table above described that 12.5 % faced delivery complications. The rest of them had not faced such complications.

Table: 5.32 Ever-Faced RTF:

Problems	Frequency	Percentage
Yes	72	10.0
No	648	90.0
Total	720	100

RTF (Reproductive tract infection): Such tract infection is common in developing societies. Various studies have shown that many deaths of women have taken place by such sickness. Though, 10.0 percent respondents were affected by diseases in community. It is an important indicator for the knowledge of woman reproductive health.

When they were asked about RTF, the 90.0% replied in negative and while 10.0% in positive. Thus, it is viewed that the main cause of RTF was due to non-awareness.

A vital finding of the study showed that that the presences of major obstetric complications lead to urgent actions to seek family appropriate care.

Table: 5.33 in your opinion what was the cause of R.T.F.

Variable	Frequency	Percentage
Little knowledge about pregnancy	180	25.0
Prenatal negligence	360	50.0
Post partum complication	90	12.5
No knowledge about R H	90	12.5
Total	720	100

The table reveals regarding causes of RTF. The majority of the respondents, i.e. 50 % described that the main cause of RTF was prenatal negligence, 18% had little knowledge about reproductive health, 12.5% were due to post partum complications,12.5% described it due to prenatal negligence.

Table: 5.34 your last live birth take place.

Place of last live birth	Frequency	Percentage
Home	298	41.4
Hospital	269	37.4
Private clinic	103	14.3
Mother Child Health Care Center	42	5.8
Any other	08	1.1
Total	720	100

The above table indicated regarding place of last live birth. The table showed that 41.1% live birth was taken place at home and 37.4% in hospital, the 14.3% in private clinics and5.8% in MCH. It is concluded that the consciousness regarding admission for delivery in hospital has been increasing, the private clinics have been playing important role due to their efficient services, but financial burden are the main obstacle for poor and lower middle class respondents.

Thus health education is recommended and that education focus should be on creation of awareness regarding post partum obstetric complication and identified harmful

traditional practices with advice on when and who to refer to specific obstetric complications. Thus, advocacy regarding guidance and counseling of women regarding reproductive health must be initiated and women must be asked to attend post partum clinics, (Fariyal, 2001).

The community-based study among mothers was conducted to assess the provision of community facilities and perception of mothers facing reproductive health problems. It was found that people behavior has been changing from traditional system .to modem system. The problem has two dimensions, the first is formulation of values and norms concerning mother and child care to visit hospitals, the second aspect is the role of policy makers that how far people have the trust on the behavior pattern of doctors and paramedics, the policy implementer, and planning workers.

Table 5.35 your consultation after delivery.

Table:	Variable	Frequency	Percentage
1	No response	80	11.0
2	Doctor	360	50.0
3	LHV/Dai/	180	25.0
4	Midwife	36	5.0
5	Hakims	54	7.5,
6	Any other	10	1.5
Total		720	100

The above table indicated regarding consultation during pregnancy. The table showed that 50.0% respondents consulting doctors, and 25.0 were consulting with LHV/dai in hospital or at her residence 5% consult midwife and 7.5 percent consulted hakims too which means traditional healers have role after delivery..

5.36 Knowledge regarding birth control:

There are six determinants of fertility decline in south Asian countries namely 1) contraceptive prevalence, 2) infant mortality rate, 3) female age at marriage, 4) female labor force participation rate, 5) female literacy and 6) unmet need are important determinants of high fertility. Sri Lanka emerges from this analysis as the benchmark country, and has high progress in attaining the required objectives, where as Pakistan has lowest especially in education of female. If Pakistan likes to get rid of prevailing problem

of high fertility, then it has to increase female literacy rate and contraceptive use (Feyza, A. B, et al).

Table 5.36 Knowledge about birth control methods:

Response	Frequency	Percentage
Yes	700	97.2
No.	20	2.8
Total	720	100

The above stated table discussed the knowledge about birth control methods. The variables concerning knowledge about contraception described that, in fact, 97.2% respondents were aware with birth control methods, whereas 2.8% were not aware with birth control methods.

Table: 5.37 Ever used methods of contraception.

Response	Frequency	Percentage
Yes	360	50%
No.	360	50%
Total	720	100

It is an opinion question relating to ever used method of contraception. In response to the questions 50.0% responded positively, whereas 50.0% had negative response. The negative response was not strictly bound to non use of contraception. As the table above shows that the awareness about the contraception is high. The majority of respondents were aware with the use of contraception.

United Nations, (2002), worldwide contraceptive prevalence was estimated at 62 per cent in 1997. Given the pace at which contraceptive use has been increasing in the less developed areas, it is likely that by 2000, 65 per cent of couples worldwide were practicing contraception, with 9 out of 10 using a modern method. In Asia and the Pacific, 66 per cent of couples are using family planning, with a high level of use in East Asia (83 per cent), which has the highest average contraceptive prevalence rate in the world because of China (84 per cent) and Hong Kong, China (86 per cent), surpassing the levels of even Northern Europe (78 per cent). Contraceptive prevalence of over 70 per cent was reported in the Islamic Republic of Iran, Republic of Korea, Singapore, Thailand and Viet Nam, while,

Bangladesh, India, Indonesia and Sri Lanka have achieved relatively high levels above 48 per cent. Contraceptive prevalence is still below 20 per cent in Afghanistan, Bhutan and the Lao People's Democratic Republic. In the Pacific, 28 per cent of couples overall are using family planning; in Cook Islands, the contraceptive prevalence rate is 63 percent; Fiji, 42 percent; and Papua New Guinea, 26 percent. In contrast with the situation in Africa, there has been a steady ascending scale of contraceptive use in the ESCAP region. Recent trends show that Myanmar and Viet Nam have experienced the highest annual increase in contraceptive prevalence at 2 percent or, with the Islamic Republic of Iran, Myanmar and Viet Nam having the highest annual increase, in the use of modern methods, that is, 2 percent annually. However, the prevalence of modern methods decreased slightly in Malaysia, the Republic of Korea, and Thailand in 1999 to 2000.

Table: 5.38. If yes, where did you get it?

Variable	Frequency	Percentage
F P Centre	62	18.7
Market	164	45.5
Friends	24	8.4
Relatives	54	15.3
Dai/LHV	36	11.7
Others	20	2.2
Total	360	100

The table discusses about the source of contraception. Majority of the respondents were getting contraception from market with 45.5%, the second source of contraception was F P Centers and its percentage was 18.7 percent. Relatives were at third position, and fourth were LHV/Dai its percentage was 11.7 percent. It is concluded from above discussion that market is the main source, whereas other sources are important too. Social marketing of contraceptives in Pakistan priced various items since its inception and start. Factually, its object was to create awareness among masses of various strata, the poor and middle class in particular.

Table: 5.39 Method of birth control you currently using.

Variable	Frequency	Percentage
Non users	360	50.0
Pill	108	15.0
IUD	72	10.0
Condom	90	12.5
Injection	54	9.5
Female sterilization	36	5.0
Total	720	100

The above table disclosed that the percentage of use of different contraception methods was that majority of them were using pills and condom and their percentage was 15% and 12.5% of both method respectively.

Husbands are decision makers, while females have to implement the agenda of husbands. The study by (Becker and Midhet, 2002) proved that the popular practice of contraception in Baluchistan was pills and condom, the IUD and injections are methods of contraception practiced at third and fourth category in Baluchi society. Further analysis of data has shown that Pakistan has the highest unmet need for family planning in this region (Chaudhry 2001). This demand was higher in rural areas in all countries, particularly in Pakistan. The common reasons found for this gap between intention and use include fear of side effects in the society and / or other health concerns of contraception, religion, opposition from husbands, and a lack of knowledge about and / or access to, contraceptive methods (Chaudhry, 2001) can not be negated.

Table: 5.40 Decision by whom for contraceptive use.

Variable	Frequency	Percentage
Non users	360	50.0
Yourself	72	10.0
Husband	90	10.5
Both	180	25.0
Others	28	4.5
Total	720	100

The above table discuss about the decision of contraceptives use. The table reveals that the percentage of the decisions of both for the use of contraception was 25.0 percent. The husband decision regarding the use was 10.5% and yourself decision was 10%, whereas husband decision was 10.5 percent. It means that spouses both when have consent on the

decision, therefore they decided to use. It is deduced from such percentage of analysis that the agreement of both is necessary for such important decision. She (wife) had relatively little say in making independent decision regarding use of contraception by her. (Mirza et al, 2001) conducted study in Sindh on socioeconomic factors affecting the use of contraception disclosed that majority of respondents were aware but they were reluctant to use the contraception in one way or another due to different reasons. Low socioeconomic conditions increase the burden of work on women, and therefore they are not free in decision making. It is a matter of empowerment of women. Because of dependency on husband, they are bound to the advice of their husbands.

Table 5.41 Any side effect with the use of contraception:

Side affect with the use of contraception	Frequency	Percentage
Yes	60	10.6
No	300	89.3
Total	360	100

Delay in seeking care has substantial contribution in maternal and neonatal mortality in Pakistan. The important reason is lack of knowledge about maternal and neonatal complications for which appropriate and timely referral medical care should be sought.

The indicators for assessing the level of complications during the child birth, and delivery processes. Three studies were conducted with the help of university of North Carolina USA, (Faisal A, 2001) found that awareness was a main cause of these complications among males in general and females in particular.

The table above disclosed that the knowledge regarding awareness has been increasing with the passage of time. About 89.3% had the knowledge about health complication, whereas 10.60% especially lack the knowledge of delivery complications.

5.42: Users of Contraception

Table 5.42 If using; who decided to use contraception to avoid pregnancy:

S.No	Variable	Frequency	Percentage
1	No response	20	5.7
2	Decided myself	40	12.5
3	Husband decided	80	25.0
4	Both decided	160	50.0
5	Mother in law	40	12.5
6	Others	20	6.2
Total	-----	360	100

The above table discussed the concept regarding decision of use contraception to avoid pregnancy. The 50.0% of the respondents were non users. Those who were users of contraception responded that who decided to use contraception. The percentage of respondents who decided by them selves was 12.5% disclosed that husbands decided about contraception. 25.0% respondents by themselves decided about it. The second high percentage category i.e. was 25.0 percent was related to husband decision in the use of contraception. The third high percentage was related to decision of spouse i.e. both were agreed to use contraception and there percentage was also 50%.

The qualitative assessment disclosed the decision making process involved in obtaining appropriate medical care for women who were using or not using contraception, and also those who developed pregnancy related complications.

Zaffar et al. (1997) examined the influence of women's autonomy on reproductive health. They measured women autonomy in terms of women involvement in socio-economic and social activities, women participation in the decision making process was the important indicators of women autonomy, that has bearing upon reproductive health in terms of number of children ever born.

Zafar et al. (1995) argued the significance of cultural factors in influencing fertility in Pakistan, and contraceptive behavior. The study indicated the importance of social forces such as education of both spouses, age at marriage, family size, sex preference, beliefs and values regarding family life in predicting fertility and contraceptive behavior in Pakistan.

According to (Shah and Palmore (1979) the in accessibility of contraceptive service was partly reasonable for low contraceptive use in Pakistan. The analysis of DHS data show that principal causes of unmet need for family planning other than non availability of contraceptives are lack of knowledge, fear of side effects and social and familial disruption (Bongarts, 1995).

Palmore and Meroedes (1981) found that the strength of association between fertility preference and contraceptive use varies significantly across countries. They also found that there is a strong relationship between contraceptive use and fertility preferences.

Tahir et al, (1985) used logistic regression techniques on pre and post-project data to examine various determinants of contraceptive practices. The principal findings on community level variables were: (1) village proximity to transport affect on contraceptive use. (2) Fertility, and child mortality have important and opposite effects on contraceptive use (3) several socio-economic variables including materials education affect contraceptive behavior although fathers education and occupation do not and (4) village midwives could successfully promote contraceptive use, health attitudes and practices.

A high percentage i.e. 16.8% avoided pregnancy; it means they were in favor of potential decrease in number of children. Therefore couple was hesitant and decided to avoid pregnancy in one way or another.

Un met need for family planning indicates the demand for avoiding or decreasing fertility and pregnancy. Unmet need for family planning indicates the demand for decreasing fertility rates. Unmet needs implies to potential decrease in fertility rates provided that essential services to these women are made available.

As stated above contraceptive prevalence increases with rising level of education. Expectedly, then unmet need is higher amongst uneducated women when compared to those with some years of schooling. This trend is confirmed by recent study in South Asian countries (Chaudhry 2002).

Table: 5.43 Particular reasons for not using F P methods?

Variable	Frequency	Percentage
Health problems	40	12.5
Infection	36	11.2
Irregular menses	54	16.8
It is not beneficial for women	20	6.2
Less male children"	80	18.7
Deficient motivation and family planning services	24	7.5
Less number of children	16	5.0
Need more female children	10	3.8
Non willing to use for pricing	40	12.5
Newly married	40	12.5
Total	360	100

The above table indicates why respondents were reluctant to use contraception due to different reasons. The main reason was because majority of the respondents were claiming the sickness in one form or another due to their use. The main reason was low number of male children and there percentage was 18.7%. The second high percentage creating reluctance for not using the main reason was irregular menses. The third MAIN cause of not using was health problem, the percentage was 12.5%. An other cause for not using the contraception was infection and its percentage was 11.2%. Those who are not willing to use because there not motivated and newly married couples, and their percentage was 9.3% respectively.

5.44 How to change behavior regarding contraception? Are you ready to change?

When respondents were reluctant to use contraception; the question arises that how to make the contraception a norm, which could lead towards the possibility to make it part of culture and normful. It is possible with motivation in individual personality and behavior with the inculcation of innovative values and change in culture.

Table 5.44 Motivated to change your behavior.

Variable	Frequency	Percentage
Yes	240	66.66
No	120	33.33
Total	360	100

The above table discusses tendency to change the behavior pattern in favor or against. The table has shown that 6.2% respondents were not responding at all about the change in behavior pattern, whereas 56.2 were far the change and 37.5 were against it. In one of the study (Mahmood, 2003) disclosed that reproductive health education should be declared as a compulsory in all educational institution formal and informal methods both for married couple which could be beneficial to ensure more consciousness to keep family within limits for better health.

Table: 5.45. If yes, who motivated you?

Variable	Frequency	Percentage
No response	20	5.5
Myself	150	41.6
Husband	120	33.3
Relatives	20	5.5
Friends	25	6.9
Family planning staff	25	6.9
Total	360	100

The above table discusses tendency to change the behavior through motivation in favor of family planning methods. The table has shown that 6.2% respondents were not responding at all regarding motivation about the change in behavior pattern in favour of contraception, whereas 46.8% were by themselves motivated far the change and acceptance. As the data in table discloses that 27.5% respondents were motivated by their husbands and 6.25% were motivated by their relatives. The important aspect of the study is that family planning staff has been playing inactive role in motivation of respondents, means they have passive role in the motivation. A study by Tauseef, 2003 discloses that among literate woman doctors, female friends and family planning workers were instrumental in motivation on contraception.

Section F: Cost of Contraception:

Table: 5.46 Distributions of respondents views about the cost of Contraception:

Variable	Don't know	Affordable	Non affordable	Total
a. Time spent for taking FP services	39.0	42.9	18.1	100(720)
b. Expenses/money spent	39.0	14.0	20.6	100(720)
c. Convince/ availability of vehicle	39.0	32.2	28.8	100(720)
d. Looking after children by relatives	39.0	40.3	20.7	100(720)

The above table described about respondent's views about the cost of contraception. Respondents were asked about issues and problems of cost in tangible and non-tangible way affecting upon use due to cost factor. The number of respondents who were not, aware about the cost was 39%, whereas 42.9% could afford the cost of it regarding time factor and 18.1 percentage had no time. However, as far finances were concerned 14% could afford the expenses incurred on contraception and 20.6% could not bear the expenses. It was concluded from the above discussion. The results of the above table showed that relatively small proportion pointing towards cost of contraception. Economists define health as one of several commodities over which individual has well defined preferences. They determine the value of the price of a commodity on the basis of demand and supply and determine the value and price. Similar to health demand functions, the demand of reproductive health is determined by factors like price, income quality of, service etc. Income elasticity in demand is defined as relative to changes in income, prices and quality of service. Income elastic ties of demand help to determine effects various pricing and distributional policies on demand. If health is normal good for a healthy person, care will be normal also (that is increase in income leads to increase in demand for care services).

There is no doubt that high fertility among poor in Pakistan is a major factor in perpetuating their poverty especially those residing in shanty towns and slums of urban centers(Ahmad,2003).High fertility environment makes calls for strategy to provide safety net to the environment. Poor see fertility and protection against pregnancy within the life cycle reflects lack of access to reproductive health services including maternal child care

and family planning.

Table 5.47 Percentage distribution concerning feelings and views about the use of contraception:

Variable	D.K	S.A	A	No	D.A.	S.D.A	Total
a. Against human nature	39.0	21.9	14.9	9.4	10.0	4.4	100(720)
b. To create conflict among spouse	39.0	19.2	11.7	15.6	9.9	4.7	100(720)
c. It creates normlessness	39.0	8.8	13.8	21.7	11.4	5.4	100(720)
d. It is Un-Islamic.	39.0	14.9	3.8	18.8	16.3	7.4	100(720)
e. It is embarrassing to talk about with the friends	39.0	3.3	8.5	26.9	16.0	6.3	100(720)
f. It is health hazardous	39.1	8.2	14.3	16.0	11.8	10.7	100(720)

The above table described feelings and views about use' or not use of contraception. The perception regarding views against human nature, 39% never knew about it. Another aspect discussed was related to creation of conflict among spouse, more than half was in favor of its use. It created conflict among spouse, 19.2% were strongly agreed about the conflict, and whereas 11.7 percentage was agreed about the conflict. The remaining 9.9% and 4.7 percent were agreed and strongly agreed respectively. It is important to note that fourteen percent had view that contraception was against religious norms. Therefore, they were reluctant to use it.

When they were asked about the idea of damaging the health of women 11.8% were disagreed with the statement and 10.7% were strongly disagree. It was concluded that, although contraception create health problem for women bearing and rearing child. Decisions regarding contraceptive use and their side effects were discussed in the above table. The table showed that 20.3 % of the respondents were interested in use of contraception. The role of husband was key to its use. Because the percentage regarding Decision of husband third last.

Tuseef (2003) disclosed that Pakistan reflects a major behavioral shift among women in urban centers, but those who do not receive different types of contraception have been either living in highly dense urban areas or in rural centers. Majority of population benefiting from such services are people of higher strata and living in cities. Those who have not been receiving are found in suburbia and villages.

SECITON G: Attitude of health providers regarding the inaccessibility of reproductive health facilities due to physical cost of contraception

Table: 5.48 Health provider's attitude:

The table describe about attending the health clinics and utilization of health facilities, those who often attending clinics were 36.3%, whereas 40.3% were attending it rarely, the number and percentage regarding utilization of health facilities was 67.4% had 'yes' and 32.6% were with negative response.

Table 5.48a Number of times you visited health Clinics:

Variable	Frequency	Percentage
Often	261	36.3
Rare	290	40.3
Not	169	23.5
Total	720	100.0

5.49 Facilitation of reproductive health problems

The expansion in service delivery through welfare and reproductive health service center in the public and private sectors for provision of facilities regarding contraceptive and formal and informal methods used in addressing reproductive health problems is of key importance to enhance reproductive health.

5.50 Prenatal Checkup

Table 5.50 No of prenatal check up

Variable	Frequency	Percentage
No response	12	1.7
Once	129	17.9
Twice	251	34.9
More	328	45.6
Total	720	100

The table above described regarding number of prenatal checks, 17.9 percent had once prenatal check up, 34.9% twice and 45.6 percent more than two percent. It is found from the table above that consciousness regarding prenatal check has been increasing

with the passage of time. Those who were currently using contraception had discussed reproductive health with their doctors. But those who were not currently using contraception ever communicated with their healers. In fact Sathar et al, (2001) examined and found strong association between prenatal checkup and reproductive health.

5.51 Post partum Checkup:

Consultation after delivery and post partum check up are important factors counted in reproductive health.

Table 5.51 Post partum:

Variable	Frequency	Percentage
No checkup	10	1.5
Once	238	33.0
Twice	104	14.4
More.	368	51.1
Total	720	100

The above table described about post partum checkup or consultation. As far post-partum check up was concerned, 51.1% got checking more than twice, 33.0% got checked once, and 14.4% got checked two times.

5.52: Privacy and facility available with doctors:

The condition that requires attention from health care providers is to help and to deal comprehensively and humanly with patients. This would include sensitization not only the physical signs and symptoms, but also the mental, psychological and social, (Jillani,92). These recommendations include, 1) training of healthcare provider, 2) treatment management protocols) the advocacy for reproductive health within medical curriculum. The doctors, being less inhibited by social customs and taboos due to their training and exposure can be instrumental in bringing about change in attitude of health providers toward sexuality because reproductive health is basic human right.

Table 5.52: Your desire to discuss problems in privacy.

Response	Frequency	Percentage
Yes	684	95.00
No	36	5.00
Total	720	100.0

The above table expresses view of the respondents about privacy and facilities available with doctors working in treating sick women. The table disclosed that 95.00% responded positively; whereas 5% had negative response. It is viewed from the responses rate that majority of respondents had positive response and did not hesitate to discuss reproductive health problems with health personnel.

Table: 5.53 Confident to discuss health problem with doctors and nurses:

Response	Frequency	Percentage
Yes	480	66.7
No	240	33.3
Total	720	100.0

The above table discusses the confidence level of respondents regarding doctors and nurses working in solution of reproductive health problems. 66.7 % respondents confident to discuss with doctors and nurses and 33.3 were lacking confidence. They were very much confident to discuss problem with doctors and nurses in privacy. It is reflected from the discussion that majority of the doctors were paying attention to the sick woman's problems. Therefore majority of the respondents were confident to discuss problems with doctors.

Table: 54 Attitude of the health providers

Variable	Frequency	Percentage
Very cooperative	359	49.9
Just normal	251	34.9
Non cooperative	110	15.2
total	720	100

The above table showed that the attitude of health providers can lead the system toward healthy community with normful and balance environment. A complete attention and privacy by the health personnel and especially by the doctors was half treatment. If

sick people were attended properly, that could solve their health problems. The concentration towards the patient's, and proper consultation of their problem confidently was half treatment. The study showed, 49.9 percent health personnel were very cooperative, and the attitude of 34.9% was just normal, whereas 15.3 had non cooperative behavior. Habib et al, (2003) conducted cross sectional study in Sindh in province by using qualitative and quantitative methods regarding reproductive health, few recommendations were given in this study proposed that medical professionals have been playing dominant role in managing reproductive health problems. These could efficiently be managed with serious involvement of health personnel in that area.

Azra (2001) proposed that medical professionals in Pakistan should have, willingness and interest in delivering reproductive health, family planning and welfare services for their communities; which is utmost important for their career.

Farooqui, (2002) reminded basic responsibility to health personnel regarding the change in behavior and attitude of health providers. Health workers should provide comprehensive and high quality reproductive health services to women at all over Pakistan; that was basic responsibility of health workers in general and physicians in particular. The best way to guarantee reproductive health services and to meet the needs of community was to involve community in every phase of development of services.

Baig (2002) proposed; in order to equip physician with the knowledge required for providing reproductive health services in Pakistan. Physicians are required to acquire skills to manage issues related to reproductive health with the participation of community. In order to address these priority areas; practitioners need to identify reason and determine steps for addressing communal health problems.

For effective implementation and dispensation of quality services in reproductive health, the capacity building of doctors, managers and service providers is being focused on the training programs of doctors. Capacity building activities cover clinical and non-clinical training at various levels. The clinical training for medical staff, i.e. the doctors and paramedics at different levels is necessary for understanding skills.

CHAPTER- 6 Exploring Relationship among variables & Testing of hypotheses

6.1 Introduction:

This chapter deals with testing of hypotheses and relationship of predictor variables with response variable. The discussion is found in form of bi-variate and multi-variate tables given in chapter, (5th) and, 6th. The tables are also given annexure. The study investigates the effect of socio-economic variables in terms of education of both husband and wife, occupation of both, family income, and family structure on family size and contraceptive behavior. Demographic factors include Family size preferences, sex preference, marriage pattern, duration of marriage; ideal family size, infant and child mortality.

Cultural factors consist of, gender role and relationship: wife's participation in the decision-making process, husband-wife communication on contraceptive use or not use, religiosity, conservatism, physical cost and, normative cost of contraceptives. Program factors translate the availability and accessibility of reproductive health facilities, utilization behavior, and attitude of health providers.

The strength of relation ship between independent and dependent variable was examined with Chi-square and Pearson correlation for bi-variate analysis. The regression analysis has been used for the identification of significance of independent variables in predicting response variables.

6.2 Socio-economic variable's influence on reproductive health:

6.2.1. a) Family size (Norm) b). Use or not use of contraception:

Family size, use and not use of contraception are dependent variables. The study discusses relationship between dependent and independent variables by showing the strength of association. The preferences of male child over female, family setup, communication among spouse, participation of women in decision making process, religiosity, and conservatism are variables evaluated and tested by association among dependent and independent variables in study.

The number of children ever born in family has been categorized into different groups. The test survey revealed that the questions asked regarding number of children

were limited to three main responses categories. These responses were related to 1-2 children (a small family), 3 children (a medium family) and +3 children (a large family).

6.2.2 Age at marriage:

Hypothesis No.1 There is inverse relationship between family size and age at marriage.

Table 6.1 Bi-variate relationship of family size with age at marriage

Age at marriage of spouse		Family size			Row total
		Small	Medium	Large	
< 20	Number	93	136	113	342
	Row (%)	27.2%	39.8%	33.0%	100%
20 – 27	Number	156	101	22	279
	Row (%)	55.9%	36.2%	7.9%	100%
> 27	Number	76	17	6	99
	Row (%)	76.8	17.2	6.1	13.8
Column total		325	254	141	720
Total (%)		45.1	35.3	19.6	100.0

Chi-square = 125.106** Gamma = -0.2506

The relationship between age at marriage and family size is examined in table 6.1 indicates that there is association between age at marriage and family size, 27.2% respondents who got married before the age of 20 years and had small family size (1-2 children) were for fewer than the respondents who got married after age of 20 years and had the same family size (small family size). The Table also reflects that 33% of the respondent who got married before the age of 20 years and had large family were numerous than the respondents who married after the age of 27 years and had the large family size. It emerges from the table that there is an inverse relationship between age at marriage and family size. As the age at marriage increases the family size decreases i.e. younger the age of marriage large family size. It is concluded that later the age at marriage smaller the family size. The chi-square value which is 125.106 is significant at 1% level. It further establishes association between the age at marriage and family size. The gamma value is -0.2506 that confirms the inverse association.

UNICEF, (2001) report revealed about age as an important factor in child bearing; global estimates suggested that girls aged 15-19 were twice as likely to have more reproductive health problem from childbirth compared with women in their twenties. While, the girls younger than the age of 15 years, face a risk that is five times as greater than as mature females. Indeed, more adolescent's girl's die from pregnancy related causes than from any other cause.

Tuseef, (2001) described that female age at marriage has gone up in some districts over the last two decades beyond the legal age at marriage.

According to Sathar and Casterline, (1998), the family program have had only miniscule effect on fertility if age at marriage and contraceptive use increase.

Sathar and Casterline, (1998) discussed that the rising age at marriage in Pakistan dominantly affected fertility in 90s and even affected fertility in south Asia (Ratherford and Rale, 1989).

Soomro (2001) denied the affect of increase in contraceptive use and revealed that the delay marriage was only factor decreasing fertility rate in Pakistan.

Hakim (2001) evaluated demographic, socioeconomic and regional factors affecting fertility rates and concluded that the female education levels and age at marriage were the main determinants of fertility rates.

Ahmad Parveen (2002) in one of the analysis regarding determinants of fertility reinforce the female education that could decelerate the rate of fertility in Pakistan.

Mehmood (2003) discussed the initial decline in fertility reduction might be attributed to increase in age at marriage; the main reason was gradual social and economic change, coupled with urbanization and modernization

Wang et al (2003) explores the factors using Multiple logistic regression analysis identified six factors associated with adolescents' pregnancy of different teenagers include: poor contraceptive knowledge' poor contraceptive self-efficacy, low effective contraceptive use, low socio economic status, more frequent mating and older age. The result provide health professional to develop prevention that is more effective to mitigate this problem. The results also could be used for effective policy formulation.

Mngadi et al. (2003) discussed the negative effects of early pregnancy and unplanned birth in developing countries, that had far reaching effects on mother and child health. The all over aim of the study was to generate data on the maternity care and social support provided by health professionals. The counseling is necessary for the use of contraception in order to prevent pregnancy at young age, and to improve their sexual and reproductive health statuses.

Akhtar (2002) discloses that fear; shame and lack of resources inhibit women from seeking safe and early abortions on one hand and from seeking care when complications occur on the other. Research in selected areas of Bangladesh found that while women adolescents constitutes 9 per cent of those who received menstrual regulation services, they constituted 15 per cent of those turned away because they sought services too late in their pregnancy.

UNICEF (2001) reported and revealed that age at marriage is an important factor in child bearing; global estimates suggest that girls aged 15-19 are twice as likely to die from childbirth compared to women in their twenties, while girls younger than age 15 face a risk that is five times as greater. Indeed, more adolescent's girl's die from pregnancy related causes than from any other cause.

A study conducted by Nagi (1983), explored the effect of socio-economic, demographic and cultural factors on reproductive health. He viewed that age at marriage has substantial effect on fertility in Muslim countries as compared with non-Muslim countries, ultimately affecting on health of women. He pointed out that, when the age at marriages increased in Muslim countries, the fertility level decreased. He also viewed the significance of family planning program regarding fertility differentials. His analysis showed that countries, with strong family planning program and political commitment in achieving desired population goal, had lowered fertility than the countries having weak family planning program and poor political commitment.

6.2.3 Respondent's literacy:

Hypothesis: No 2. There is direct relationship between family size and family income.

Table 6.2 Bivariate relationship of family size with respondent's literacy:

Literacy		Family size			Row total
		Small	Medium	Large	
Yes	Number	215	154	51	420
	Row (%)	51.2	36.7	12.1	58.3
No	Number	110	100	90	300
	Row (%)	36.7	33.3	30.0	41.7
Column total		325	254	141	720
Total (%)		45.1	35.3	19.6	100.0

Chi-square (χ^2) = 37.22** Gamma (γ) = 0.3286

Literacy or educational attainment is an important factor affecting the social behavior of people of any society. It has been viewed in many studies that literacy does affect fertility and contraceptive behavior. Literate people refer to have small family as compared to illiterate people (Zafar, 1993).

Table 6.2 indicates that (51.2%) of the respondents who were literate and had small family size were numerous than the respondents who had the same family size (small) and were illiterate (36.7%). Table also indicate that (12.1%) of the respondents who were literate and had large family size were far fewer than the respondents who had same family size and were illiterate (30%). The Chi square (χ^2) and Gamma (γ) values which are (37.22, 0.3286) respectively reflect strong association between literacy and family size.

Casterline (1984) pointed out; by using the Pakistan Fertility Survey data that educational attainment of women was associated with number of children_ever born. The negative effect was larger for those who proceed beyond primary education.

Sathar (1984) argued that more than nine years of schooling of females was associated with fertility decline and the level of female education is negatively associated. It also varies from society to society and higher level of education may induce fertility decline.

6.2.4 Husband's literacy:

Hypothesis No.3 There is direct relationship between family size and husband literacy.

Table; 6.3 Bivariate relationship of family size with husband's literacy.

Husband literacy		Family size			Row total
		Small	Medium	Large	
Yes	Number	289	221	55	565
	Row (%)	51.2	39.1	9.7	78.5
No	Number	36	33	86	155
	Row (%)	23.2	21.3	55.5	21.5
Column total		325	254	141	720
Total (%)		45.1	35.3	19.6	100.0

Chi-square = 48.5 Gamma = .352

The affect of husband literacy on family size is almost the same as emerged for respondent's literacy. Table 6.3 the reveals that (51.2%) of the respondent's husband who were literate and had small family size were far numerous than the respondent's who had same family size (small) and who were illiterate (23.2%). Table also indicate that the percentage of respondent's husbands who were literate and had large family size were (9.7%) was fewer than the respondent's who had the same family size (large) and were illiterate (55.5%).

The chi-square value which is 48.5 significant at 1% level identified the strong relationship between respondent husband literacy and family size. The gamma (γ) value which is .352 also conform the association.

World Bank, (2002) report suggested that organized efforts are required to educate women and their husbands to change their attitude in community to provide contraceptive information through formal education. Counseling services for couples to limit pregnancies through education by well-trained personnel. To enhance the effectiveness of the reproductive health programs and help women to reduce the health risks.

The movement should be launched to inspire new thinking to check unwanted pregnancies by educating them formally for the harmful affects of high fertility affecting family size. In community, the balanced reproductive health behavior could be promoted

in a way that, if couples want to regulate their fertility periods; they should be provided assistance by educating them about harmful effects of high fertility, need based upon help to women, who need help and necessary information by providing them education.

Table 6.3 discuss relationship of family size and spouse literacy. More would be the education of spouse small would be the family size. This relationship was evident through the value of chi-square.

6.2.6 Respondent's level of education:

Hypothesis No.4 There is inverse relationship between family size and respondent level of education i.e. higher will be education smaller will be family size.

Table: 6.4 Bivariate relationship of family size with Respondent level of education.

Education level of respondent		Family size			Row total
		Small	Medium	Large	
Illiterate	Number	42	41	15	98
	Row (%)	42.9	41.8	15.3	13.6
Primary	Number	59	42	9	110
	Row (%)	53.6	38.2	8.2	15.3
Secondary	Number	74	71	49	194
	Row (%)	38.1	36.6	25.3	26.9
Higher	Number	150	100	68	318
	Row (%)	47.2	31.4	21.4	44.2
Column total		325	254	141	720
Total (%)		45.1	35.3	19.6	100.0

Chi-square = 19.08** Gamma = 0.0323

The chi-square value indicates that there was strong association between family size and respondent education level at (P<0.01).

World Bank, (2002) report suggested that organized efforts are required to educate women and their husbands to change their attitude in lower class community particularly, to provide contraceptive information through formal education. Counseling services for couples to limit pregnancies through education by well-trained personnel. To enhance the effectiveness of the reproductive health programs and help women to reduce the health risks.

The movement should be launched to inspire new thinking to check unwanted pregnancies by educating them formally for the harmful effects of fertility effecting family size. In community, the balanced reproductive health behavior could be promoted in a way that, if couples want to regulate their fertility periods; they should be provided assistance by educating them about harmful effects high fertility, need based help to women who need help and necessary information by education.

6.2.7 Husband education:

Hypothesis No.5 There is inverse relationship between family size and husband's education.

Table 6.5 Bivariate relationship of family size with husband level of education:

Husband's level of education		Family size			Row total
		Small	Medium	Large	
Illiterate	Number	23	21	14	58
	Row (%)	39.7	36.2	24.1	8.1
Primary	Number	139	97	56	292
	Row (%)	47.6	33.2	19.2	40.6
Secondary	Number	99	99	60	258
	Row (%)	38.4	38.4	23.3	35.8
Higher	Number	64	37	11	112
	Row (%)	57.1	33.0	9.8	15.6
Column total		325	254	141	720
Total (%)		45.1	35.3	19.6	100.0

Chi-square = 16.06* Gamma = -0.057

Table 6.5 examines the effect of husband level of education on family size. The table indicates that (39.7%) of the respondent's who were illiterate and had small family size were fewer than the respondent's husband who had the same family size and higher level of education (57.1%). Table also tells that (24.1%) of the respondents who were illiterate had large family size were numerous than the respondent's husbands who had the same family size (large) and higher level of education (9.8%).

The Chi-square value 16.06 established associations between husband educational attainment and family size at (P <0.05) level.

Fayza, (2003) described that men with more education tend to have smaller families due to more awareness about the problems in large families, problems of mother and child, and also of income and employment,

Pollock (1985),Petchesky(1986) and Holock (1987) presented the opinion of husbands. Those husbands who are educated always play positive and important role in the use of contraception. Factually, power of men in many cultures is dominant in Asia.

PDHS, (2002) conducted the study that a large majority of the non-users husbands did not intend to use contraception at any time in the future. Efforts to educate them for the development of positive attitudes towards contraceptive use through different channels of education and mass media, that would be a very useful weapon to inspire new thinking for enhancing family planning activities in Pakistan.

6.2.8 Respondent's occupation.

Hypothesis No.6 There is direct relationship between family size and respondent occupation.

Table 6.6:Bivariate relationship of family size with occupation.

Occupation of respondent		Family size			Row total
		Small	Medium	Large	
House wife	Number	248	172	110	530
	Row (%)	46.8	32.5	20.8	73.6
Employee	Number	59	55	11	125
	Row (%)	47.2	44.0	8.8	17.4
Business at home	Number	16	15	16	47
	Row (%)	34.0	31.9	34.0	6.5
Business by selling	Number	2	12	4	18
	Row (%)	11.1	66.7	22.2	2.5
Column total		325	254	141	720
Total (%)		45.1	35.3	19.6	100.0

Chi-square = 28.29** Gamma = 0.072

The chi-square value indicates that there was strong association between family size and occupation of respondent at 1% level of significance.

Ganguly et al. (1987) made a cross-sectional survey on 265 pre-school children to examine whether exposure to malnutrition depends on age, sex, and birth order of the child. Socioeconomic status i.e. earning spouse specially father and mothers, with high status of parents and family size by assuming exposure probabilities to follow binary

logistic regression model and the adequacy of fitness of model was tested. The results endorsed strong association.

6.2.9 Bi-variate Relationship of family size with Occupation of Spouse:

Social stratum in society is the index of position of individual in community. Person belonging to upper class has different attitude toward the family size than the persons belonging to lower or middle class. The table No. 6.6 showed that 47.7 percent of the respondents who had gained high scores with the availability of facilities in index variables observed high level of socio-economic position with spouse education in the community would be possessing different behavior in society, that relationship of occupation of both and satisfaction level with health facilities.

The table 6.7 showed that 46.8 percent of the respondents who noticed low status occupation had large family with low income and status in the community. The relationship between occupation and satisfaction with health facilities of women and childcare was significant. It also depicted that the respondents with high-income level and more facilities concerning their family life were least interested in large family. The relationship between large children and income level was insignificant. The value of Chi-square was significant and proved that high status with better occupation respondents had small families. These results at first stance are logical because family with high-income level had more satisfaction with better health facilities.

6.2.10 Husband's occupation:

Hypothesis No.7 There is inverse relationship between family size and husband income.

Table :6.7 Bi-variate relationship of family size with husband's occupation.

Husband's occupation		Family size			Row total
		Small	Medium	Large	
Govt. employee	Number	136	105	64	305
	Row (%)	44.6	34.4	21.0	42.4
Agriculturist	Number	9	15	10	34
	Row (%)	26.5	44.1	29.4	4.7
Businessman	Number	58	44	9	111
	Row (%)	52.3	39.6	8.1	15.4
Self employed	Number	48	42	29	119
	Row (%)	40.3	35.3	24.4	16.5
Unemployed	Number	13	7	6	26
	Row (%)	50.0	26.9	23.1	3.6
Any other	Number	61	41	23	125
	Row (%)	48.8	32.8	18.4	17.4
Column total		325	254	141	720
Total (%)		45.1	35.3	19.6	100.0

Chi-square = 18.24* Gamma= 0.05

Table 6.7 indicates that the percentage of occupation of the respondents' were almost for all categories such as Government employee, businessman, self employed and un-employed are almost the same who had small family size except respondent's husbands who had the agricultural occupation.

The chi-square value which is 18.24 reflects association between husband between occupation and family size. The chi-square values indicated the significant relationship ($P < 0.01$), that there was strong association between family size and Husband's occupation.

Freedman (1987) concluded the negative relationship varies in degree and sometimes in direction. The net effect of education on reproductive health by controlling

other variables, e.g., income, residence, occupation, family planning practices etc, vary substantially within country and between countries.

Mc Nicoll, (1999) elaborated concerning income level of the husband and disclosed that there are three possible ways through which poverty can be explained in relation to environment and socio-cultural settings. Firstly, there is a direct relationship with population growth and economy. Secondly, rapid population growth has negative effect on the environment resulting in increasing the poverty. Thirdly, population growth has significant influence on social instability and disorganization having great potential of worsening poverty.

6.2.11 Family income:

Hypothesis No.8 There is inverse relationship between family size and family income.

Table: 6.8 Bivariate relationship of family size with family income.

Family income		Family size			Row total
		Small	Medium	Large	
< 5000	Number	120	85	59	264
	Row (%)	45.5	32.2	22.3	36.7
5000-15000	Number	115	99	63	277
	Row (%)	41.5	35.7	22.7	38.5
15000-25000	Number	35	34	10	79
	Row (%)	44.3	43.0	12.7	11.0
> 25000	Number	55	36	9	100
	Row (%)	55.0	36.0	9.0	13.9
Column total		325	254	141	720
Total (%)		45.1	35.3	19.6	100.0

Chi-square = 15.16* Gamma = -0.0906

Income is an important indicator of social standing of someone in the society. Income does affect the social behavior of the social system. In the study the relationship between family income and family size has been explored.

Table 6.1 indicates that 45.5% of the respondents who had family income lesser than Rs5000 had small family size were fewer than respondents who had the income more than Rs25000 and had the same family size (55.0%). On the other hand

respondents who had the income more than Rs20000 with large family size (9%) were far fewer than respondents who had the same family size with low income less than 5000 i.e.(22.3%) in number. It can be said that as the income increases the family size decrease. The chi-square value also establishes this relationship at 5% level.

In the above table, the relationship of family size with family income was given, which described that with the change in income i.e. more income would affect positively on family size. It meant that more would be the income, the family size would be small with 45.1% whereas medium family size have 35.3%, and for large family or extended family the percentage was 19.6. Thus it was concluded that respondents with low level of income had large family. A family with income lesser than rupees 5000 has high percent and large family. The data analysis found that higher would be income smaller would be family size, which was proved by negative relationship of gamma.

More over the relationship of income and family size was significant, i.e. the value of chi-square.

Hermalin (1983) revealed that economics of reproductive health is related to time, money and distance, which have direct effect on family size. It concluded that family gets smaller and smaller with more high income. The percentage of contraceptive use become larger as a result family size gets smaller.

6.2.12 Type of family:

Hypothesis No.9 There is strong association between family type and family size.

Table 6.9 Bi-variate relationship of family size with type of family

Type of family		Family size			Row total
		Small	Medium	Large	
Nuclear	Number	117	68	26	211
	Row (%)	55.5	32.2	12.3	29.3
Joint	Number	208	186	115	509
	Row (%)	40.9	36.5	22.6	70.7
Column total		325	254	141	720
Total (%)		45.1	35.3	19.6	100.0

Chi-square = 15.85** Gamma = 0.2766

Table 6.9 indicates the relationship between family structure and family size. It has been argued that nuclear families would like to have smaller family size because the large family is not compatible to their socio-economic circumstances and also links with

attitudinal need change from collectivism to individualism. In other words that is a change from traditional belief to the modern and rational belief system.

The Table also reflects that 55.5% of the respondents who were living in nuclear family systems had small family size were greater than respondents who have same family size and living in joint family setup.

On the other hand respondents who belong to nuclear family in large family (12.3%) were fewer than the respondents who had same family size and were living in joint family setup. The chi-square and gamma value also confirm this relationship at 1% level of significant. The chi-square value indicated the significant ($P < 0.01$) results that there was strong association between family size and type of family.

6.2.13 Family setup preference:

Hypothesis No.10 There is inverse relationship between family set up preference and family size.

Table 6.10: Bivariate relationship of family size with family setup preference:

Family setup preference		Family size			Row total
		Small	Medium	Large	
Patriarchal	Number	261	168	84	513
	Row (%)	50.9	32.7	16.4	71.3
Matriarchal	Number	64	86	57	207
	Row (%)	30.9	41.5	27.5	28.8
Column total		325	254	141	720
Total (%)		45.1	35.3	19.6	100.0

Chi-square = 25.64** Gamma = 0.335

Table 6.10 elaborates that family setup does affect whether patriarchal or matriarchal the family size as emerged in the study. Table 6.10 indicates that (50.9%) of the respondent's who had patriarchal family setup and had small family size for greater than the respondents' who had same family size (small) and were living in matriarchal family setup (30.9%). Table also reveals that the percentage respondents' who belonged to patriarchal family setup and had large family size that is (16.4%) were fewer than the respondents' who had the same family size (large) and had matriarchal family setup (27.5%).

The chi-square value is 25.64 which clearly indicates strong association between family setup and family size. The Gamma value is 0.335 confirms the association at

significant ($P < 0.01$) reflecting that there is strong association between family size and family setup preference.

(Saba, (2003) conducted a study which showed that majority of newly married couple; especially woman liked to live in matriarchal family structure. The study also revealed that majority of woman liked to live in nuclear family structure. It is a fact that in matriarchal family system women is empowered in decision-making. Women have dominant role in decision making about number of children, women are least concerned about the gender of a child. When men have the decision making power, so they decide about family size. The important symbol of Pushtun society is that a strong family with many males is the symbol of pride and bravery Therefore, large family has become a norm, and sometimes polygamy is also practiced, and the number of children in rural and suburbia is higher than urban areas. Therefore the family size at average is large in Pakistan.

6.2.14 Sex preference:

Hypothesis No.11 There is direct relationship between sex preference and family size.

Table: 6.11 Bivariates relationship of sex preference with family size.

Sex preference		Family size			Row total
		Small	Medium	Large	
High	Number	16	19	73	108
	Row (%)	14.8	17.6	67.6	15.0
Medium	Number	118	194	53	365
	Row (%)	32.3	53.2	14.5	50.7
Low	Number	191	41	15	247
	Row (%)	77.3	16.6	6.1	34.3
Column total		325	254	141	720
Total (%)		45.1	35.3	19.6	100.0

Chi-square = 313.93** Gamma = -0.7168

The developing societies like Pakistan are male dominated. The people from these societies prefer to have many sons due to socio-economics, political and cultural reasons. The effect of sex preference on family size is also studied. The index variable

sex preference is developed which is based upon many attitudinal statement regarding sex preference mentioned in table no 5.19. in chapter five

Table indicates that 14.8% of the respondents who had sex preference and had small family size were far fewer than respondents who had low sex preference and had the same family size. Table also reflects that percentage of respondents who had high sex preference and had large family size i.e. (67.6%) were numerous than the respondents who had low sex preference and the same family size. It can be said that sex preference is associated with family size. The higher the sex preference, larger the family size, and lower the sex preference the smaller the family size.

The Chi-square and gamma value i.e. 313.93 and -0.7168 are significant that ($P < 0.01$) establish the importance of sex preference in determining family size.

The chi-square values indicated the significant ($P < 0.01$) results that there was strong association between family size and sex preference. The percentage of the respondents who had gained high scores with the family size and sex preference in index variables observed high level of sex preference with large families.

This is an important index variable given in the table showed that family size and sex preference were inversely related. There was change in the behavior pattern of people. The community liked to get rid of the norm of sex preference i.e. the preference for boys was very much in practice.

Haq et al. (1989) examined the association between socio-economic and demographic factors, such as, family size and sex preferences among the women in Pakistan concluded high sex /gender preference leads toward large family size.

This hypothesis was described and tested in many studies and its findings revealed that it is a lower class complex and some times reality in society like Frontier province, where people behavior is highly norm-based.

Petchesky (1986) and Gordon, (1976), described sex preference in social class as an important factor in birth control, all over the developing societies; the importance of sex preference in a social class was main factor in birth control.

A simple table on page 115 in chapter 5th has clearly indicated the trend of social classes with percentage that lower class has high sex preference.

6.2.15 Family size and domestic chores:

Hypothesis No.12 There is direct relationship between family size and husband's participation in domestic chores.

Table 6.12: Bi-variate relationship showing family size husband participation in domestic chores

Domestic chore		Family size			Row total
		Small	Medium	Large	
Low	Number	149	107	87	343
	Row (%)	43.4	31.2	25.4	47.6
Medium	Number	62	51	22	135
	Row (%)	45.9	37.8	16.3	18.8
High	Number	114	96	32	242
	Row (%)	47.1	39.7	13.2	33.6
Column total		325	254	141	720
Total (%)		45.1	35.3	19.6	100.0

Chi-square = 15.23** Gamma = -0.118

The husband participation in domestic chores has been defined as a correlate of family size. Table indicates that 25.4% of the respondents who had low participation in domestic chores and had large family size were numerous than the respondents who had high participation in domestic chores and had the same family size and percentages' is 3.2%.

Table indicates that respondents' husbands who had low participation in domestic activities preferred to have large family as a compared to respondents who had high participation in domestic chores.

The chi-square also supports this relationship. The mechanisms through which husband participation in domestic chores does affect the family size is through enhancing understanding between the spouses. Different studies viewed that the husbands who have better understanding with their wives have smaller families.

The relationship between domestic chore and family size was highly significant, that proved significant relationship of both variables through chi-square and Gamma test. The tendency toward sharing in house hold activity has been changing, which meant that

male partner liked to share in domestic chores. The significant value of chi-square and Gamma proved strong association among variables.

Isiugo-Abanihe (1994) revealed that the factors influencing men’s reproductive behavior included; participation in domestic chores activities because of education, age at marriage, monogamy, inter-spousal communication, and intention not to rely on children for old ages.

6.2.16 Allow for household activity:

Hypothesis No.13 There is inverse relationship between family size and participation of husband in household activities.

Table: 6.13 Bi-variate relationship of family size with permission for household activity.

Husband Participate in Household Activity		Family size			Row total
		Small	Medium	Large	
Low	Number	51	73	87	211
	Row (%)	24.2	34.6	41.2	29.3
Medium	Number	114	172	46	332
	Row (%)	34.3	51.8	13.9	46.1
High	Number	160	9	8	177
	Row (%)	90.4	5.1	4.5	24.6
Column total		325	254	141	720
Total (%)		45.1	35.3	19.6	100.0

Chi-square = 257.49** Gamma = -0.6628

Table 6.13 indicated that in male dominated society husbands’ attitude is primarily important in influencing family and non-family matters, activities and decisions. The husband permission to his wife in performing outdoor activities such as table 5.22 in chapter 5th discussed the factors like, a) participation in relative marriage and b) permission go to market, c) shopping, d) visit the health center e) go to shrines has been examined in relation to family size. The index variable husband permissiveness has develop and based upon the above statements. It has been observed that the husband who where liberal in a loving to there wives for performing outdoor activities prefer to has smaller family as compared to those who were rigid, orthodox and dogmatic attitude to words their wives in such activity.

Table 6.13 indicates that respondents’ who gained low score index variable regarding husband permissiveness and had large family size and that is (24.2%) were for

fewer than the respondents' who had same family size and gained high score on index variable (90.4%). Table also indicates that (41.2%) of the respondents' who had large family size and gained low score on index variable were numerous than the respondent's who had large family and high score on index variable and that is (4.5%). The Chi-square value which is 257.49 and the Gamma value which is -0.6628 is significant at ($P < 0.01$) results that there was strong association between family size and husband permissiveness or household activity. Higher the permissiveness smaller the family size lower the permissiveness larger the family size.

It indicated in a study by (Beckman, 1983; Hull, 1983) that in male dominated societies the husband has more power than their wives. The study conducted by PDHS (2002) that a large majority of the non-users husbands did not intend to use contraception at any time in the future. Efforts to develop positive attitudes among husbands towards contraceptive use through different channels of education and mass media would be a very useful to inspire new thinking for enhancing family planning activities in Pakistan.

6.2.17 Women participation:

Hypothesis No.14 There is inverse relationship or negative association between family size and women participation in domestic affairs.

Table: 6.14 Bivariate relationship of family size with women participation in domestic affairs.

Women participation		Family size			Row total
		Small	Medium	Large	
Low	Number	19	25	25	69
	Row (%)	27.5	36.2	36.2	9.6
Medium	Number	156	148	91	395
	Row (%)	39.5	37.5	23.0	54.9
High	Number	150	81	25	256
	Row (%)	58.6	31.6	9.8	35.6
Column total		325	254	141	720
Total (%)		45.1	35.3	19.6	100.0

Chi-square = 44.08** Gamma = -0.368

Participation of women in decision making process is vitally important in relation to family formation. It has been viewed that women who participate effectively in family and non family matters prefer to have small families and more inclined to contraception (Zafar 95). The effect of women participation in decision making process on family size is examined in the study. The table 6.14 indicates this association 27.5% of the respondents who had small family size and poor participation in decision making were fewer than the respondents who had lower participation in decision making process and large family size. The table reflects that 36.2% of the respondents who had low participation in decision making process and had large family size were numerous than the respondents who had high participation and same family size.

It can be said that women participation does affect the family size. Higher the participation smaller the family size and lower the participation larger the family size reflecting inverse relationship between women participation and family size.

The Chi-square value is (14.08 and the Gamma value is -0.368 which also clearly reflecting the strength of association between women participation in decision making process and family size.

Nawar (1994) investigated the relationship between female autonomy among Egyptian women and fertility. He found that the Egyptian women appeared remarkably dependent on their spouses with respect to family decisions, but they have a strong voice in particular decisions of most relevance to them such as family planning and fertility.

Uhlmann A .J (2004) revealed in this paper and traces the effective gender roles regarding participation in activities and division of labor. The informants were both male and female and change in sex roles was discussed; it was discussed that how decisions were made and how labor in family should be divided.

The important point raised in the research was related to the patriarchy and egalitarianism actually exhausted the difference of attitude, which existed in family system. That was related to rationale of division of labor in different context. The role changed with passage of time, the wives some times were bread winners; when asked about the role in family, women preferred maternity over paternity, and work as bread earner; the natural role mothers play.

6.2.18 Communication on family matters:

Hypothesis: 15. There is direct relationship between communication among spouse and family matters.

Table 6.15 Bivariate relationship of family size with communication among spouse on family matters.

Communication on family matters		Family size			Row total
		Small	Medium	Large	
Low	Number	93	81	63	237
	Row (%)	39.2	34.2	26.6	32.9
Medium	Number	69	125	37	231
	Row (%)	29.9	54.1	16.0	32.1
High	Number	163	48	41	252
	Row (%)	64.7	19.0	16.3	35.0
Column total		325	254	141	720
Total (%)		45.1	35.3	19.6	100.0

Chi-square = 86.05** Gamma = -0.2783

Different studies have identified the significance of contraceptive behavior on family size. The variable spousal communication on family matters influencing the family size and contraceptive behavior. Bi-variate analysis demonstrates indirect relationship between communication on family matters and family size. The high spousal communications links with smaller family size; and spousal communications links with larger family size.

Index variable spousal communication based upon this statement regarding communication about number of children, about the family planning, about spacing the children, about pregnancy problem and place for getting contraction. The better spousal communication has the depressing effect on family size and contraceptive use.

Table 6.15 indicates that 39.2% of the respondents who had low communication with their husbands on family matters and had small family size were fewer than respondents who had higher communication on family matters with their husbands and had same family size (64.7).

On the other hand table also reflects that (26.6%) of the respondents who had low communication on family matters and had large family size were greater than the respondents who had higher communication on family matters with husband and had same family size. The chi square value is 86.05 and the gamma value is -0.2783 also establish a significant association at 1% level of significance between spousal communication and family size.

These above given table showed, that there was change in perception of respondents in community. There was a tendency toward change in cultural values. The above table showed change in behavior pattern. It meant that there was change in the

norm of male dominancy. The culture was leading toward norm of sharing in family institution.

Uhlmann A .J (2004) revealed in this paper and traces the effective gender roles regarding participation and communication in activities and division of labor. The informants were both male and female and change in sex roles was discussed; it was discussed that how decisions were made and how labor in family should be divided.

The important point raised in the research was related to the patriarchy and egalitarianism actually exhausted the difference of attitude, which existed in family system. That was related to rationale of division of labor in different context. The role changed with passage of time, the wives some times were bread winners; when asked about the role in family, women preferred maternity over paternity; the natural role mothers play.

6.2.19 Religiosity:

Hypothesis No 16 There is direct association between family size and religiosity.

Table: 6.16 Bivariate relationship of family size with religiosity.

Religiosity		Family size			Row total
		Small	Medium	Large	
Low	Number	26	25	68	119
	Row (%)	21.8	21.0	57.1	16.5
Medium	Number	87	147	35	269
	Row (%)	32.3	54.6	13.0	37.4
High	Number	212	82	38	332
	Row (%)	63.9	24.7	11.4	46.1
Column total		325	254	141	720
Total (%)		45.1	35.3	19.6	100.0

Chi-square = 196.72** Gamma = -0.5349

It has been advocated in different studies that the peoples attachment with the religion and performance to different rituals influence peoples behavior towards family building. The effect of religiosity family size has been explored. The index variable religiosity has been constructed based on different statements including; whether a man should plan in advance is against destiny. The religion does not allow planning in advance, the religion does not allow limiting family size; contraception has been use as killing the child and contraceptive use as sin and having large family as blessing of God.

The table 6.16 reflects a strong association between religiosity and family size, (21.8%) of the respondents who had low score on religiosity index and had small family size were far fewer than the respondents who had same family size (small) and had higher score on religiosity index (63.9). The table also reveals that 57.15 of the respondents who had low scores on religiosity had the large family size were far numerous than the respondents who had same family size (large) and high score on religiosity index that is (11.4) score.

The chi-square values is 196.72 and gamma value is 0.5349 clearly demonstrate a strong association at 1% level indicates that there is strong association between family size and religiosity. It can be said that religious perceptions prevailing in N. W. F .P do affect the people attitude and behavior toward family size and contraceptive use. People who believe that the Islam does not allow contraceptive use and having large family is blessing of God prefer to have large family size.

The religiosity is one of the important factors contributing and affecting family size. Modern concept of religion based on the idea that religion is not an obstacle before change. In fact religion never prohibits contraception i.e. shown and proved by significant of chi-square and also Gamma value in this study.

Zafar et al. (1995) argued the significance of cultural factors in influencing fertility and contraceptive behavior. The study indicated the importance of social forces such as education of both spouses, age at marriage, family size, sex preference, beliefs and values regarding family life in predicting fertility and contraceptive behavior in Pakistan.

Abdool Karim et al. (1992), revealed, that young adults may feel uncomfortable discussing their reproductive health needs with parents or providers, particularly if providers are unfriendly. Cultural and religious biases may make providers reluctant to give reproductive health information and contraception to young adults especially unmarried women. Case studies in Africa have shown that adolescents who approached clinics for care were often berated, denied and proper information were not given.

6.2.20 Physical cost of contraception:

Hypothesis No.17 There is inverse relationship between family sizes with physical cost of contraception.

Table: 6.17 Bivariate relationship of family size with physical cost of contraception.

Physical cost		Family size			Row total
		Small	Medium	Large	
High	Number	14	30	73	117
	Row (%)	12.0	25.6	62.4	16.3
Medium	Number	59	103	30	192
	Row (%)	30.7	53.6	15.6	26.7
Low	Number	252	121	38	411
	Row (%)	61.3	29.4	9.2	57.1
Column total		325	254	141	720
Total (%)		45.1	35.3	19.6	100.0

Chi-square = 220.05** Gamma = -0.6299

The accessibility and availability are important components in relation to physical cost of contraceptive and family size. The countries where contraceptives are available, and easily accessible the people have small families'. The index variable of physical cost has been constructed which is based upon five statements include: time spent for family planning service; expenses borne by user, availability of conveyance, and looking after children when they go to fetch contraception. The bi-variate analysis given in table 6.17 clearly demonstrates a strong relationship of physical cost and had family size.

The table indicates that the 12% of the respondent's who had high physical cost of contraception and had small family size were far fewer than respondent's who had low physical cost of contraception and the same family size that is (61.3%). Table also indicates that 62.4% of the respondent's who had large family size and have high cost physical cost of contraception were far greater than who had same family (large) and low physical cost of contraception (9.2%). The chi-square value is 220.05 which is significant at 0.05 level of clearly demonstrate strong relationship between physical cost, family size. The Gamma value 0.6299 confirms direct relationship between physical cost and contraception. Higher the cost of contraception for clients to pay larger the family size and lower the cost of contraception smaller family size the clients prefer to have.

Hermalin (1983) examined the effects of fertility regulation costs on fertility decision-making in terms of objective costs time, distance and money involved in getting contraception and health costs and subjective costs includes fears of serious and minor side effects, normative and psychological costs.

6.2.21 Normative cost:

Hypothesis No.18 There is direct relationship between family size and normative cost of contraception.

Table 6.18: Bivariate relationship of family size with normative cost of contraception:

Normative cost		Family size			Row total
		Small	Medium	Large	
Low	Number	39	26	10	75
	Row (%)	52.0	34.7	13.3	10.4
Medium	Number	233	160	90	483
	Row (%)	48.2	33.1	18.6	67.1
High	Number	53	68	41	162
	Row (%)	32.7	42.0	25.3	22.5
Column total		325	254	141	720
Total (%)		45.1	35.3	19.6	100.0

Chi-square = 14.48** Gamma = 0.214

The normative cost is cognitive aspect, and it has been viewed as a determinant of contraceptive use, which ultimately affects family size. The normative cost index is based upon five attitudinal statements, described as: contraception is against human nature; it creates conflicts among spouse; it creates normlessness and un-Islamic too etc. Table 6.18 indicates that 52.0%, of the respondents' who had low normative cost and had the small family size were numerous than the respondents who had the same family size (small) and higher normative cost (32.7%).Table also reveals that of the respondents who had low normative cost and had larger family size (13.3%) was lower than the percentage of respondents who had same family size(large) and had high normative cost(25.3)

The chi-square value is 14.48 indicates that there is strong association between family size and normative cost. It can be said that higher the normative cost larger the family size, and lower the normative cost smaller the family size.

Both tables were related to physical and normative cost of contraception i.e. physical cost mean finances incurred on buying contraception. As for normative cost is concerned; the society has accepted and the norm of contraception is getting popularity, shown with the significant values as well as Gamma values in the above tables.

Roysston and Armstrong, (1998, pp. 56-62) discussing about physical and normative or social cost of early child bearing reveals that uncontrolled childbearing causes more than physical and psychological harm-is normative and physical cost.

6.2.22 Attitude of the health providers:

Hypothesis No6.19 There is strong relationship between family size and attitude of the health providers.

Table: 6.19 Bi -variate relationship of family size with attitude of the health providers.

Health provider's attitude		Family size			Row total
		Small	Medium	Large	
Very cooperative	Number	230	116	13	359
	Row (%)	64.1	32.3	3.6	49.9
Just normal	Number	84	111	56	251
	Row (%)	33.5	44.2	22.3	34.9
Non cooperative	Number	11	27	72	110
	Row (%)	10.0	24.5	65.5	15.3
Column total		325	254	141	720
Total (%)		45.1	35.3	19.6	100.0

Chi-square = 242.19** Gamma = 0.683

Attitude of the health providers is the key factor in the promotion of health and family planning services in the community. Different studies advocated the role of attitude of health providers in relation to enhancing the contraceptive use. The positive attitude of health providers attracts and motivates the clients for contraceptive acceptance which consequently influence their family size. The relationship between attitude of health providers and family size is examined in the study .The bi-variate analysis demonstrates an emerging effect of health providers attitude on family size. Table 6.19 indicates that 64.1% of the respondents who had positive and cooperative attitude from the health providers and had small size family were far greater than respondents who had the same

family size (small) and had negative and non cooperative attitude from health providers. Table also indicates that 64.1% of the respondents who had very cooperative attitude from health providers and had large family size.(3.6%) were far fewer than the percentages of the respondents who had the and had non cooperative attitude from the health providers same family size(large). Chi-square is equal to 242.19 and the Gamma value is 0.683 clearly demonstrate strong and significant association regarding health providers' attitude and family size. A non threatening, conducive and permissive environment in which clients can express their desires and feelings which promote acceptability of health services and contraceptive use. It can be said that a positive attitude of health providers can create and motivate the clients towards the use of contraception; ultimately leading towards small family size

Farooqui (2002) reminds basic duty to health personnel, specially the attitude of health providers and health workers to provide comprehensive and high quality reproductive health services to masses; which is the basic responsibility of health workers in general and physicians in particular. The best way to guarantee reproductive health services and to meet the needs of community is to involve community in every phase of development of those services.

b) Baig A.L (2002) proposes; in order to equip physician with the knowledge required providing reproductive health services; they are required to acquire skills to manage issues related to reproductive health with the participation of community. In order to address these priority area practitioners needs to identify reason and determine the steps for addressing community health problems. Following measures may be adopted:

Mngadi. P.T et al (2003) discuss the negative effects of early pregnancy and unplanned birth, that has for reaching effects on mother and child .The all over aim of the study was to generate data on the maternity care and social support provided by health professionals. The doctors paid special attention to adolescent sexual and reproductive health needs; the contraceptive counseling in order to prevent pregnancy at young age and to improve their sexual and reproductive health statuses.

SUMMARY

The socio-economic and cultural environment of any area has dominant effect on number of children. It was related to reproductive health, thinking attitude, behavior and practices in the community or due to social and cultural system. If social environment was motivating the people toward large family then there would be little use of contraception and people would like to prefer big families due to value of more value of male children, and ultimately effecting negatively on mothers health at the age of reproduction. On the other hand if social situation and culture of small family prevailed there. Then the people would be practicing small family norm.

In addition, when the relation ship of socio economic and demographic variable gender role is examined the respondents regarding above stated variable, stated that spouse who had more education and high family income prefer to have small family size The change in behavior of community was due to education of the spouse, occupation, family income and family setup.

Now the researcher would like to discuss relationship of dependent variable of contraceptive use, their relationship with other independent and predictor variables, that is use or not use of contraception with all those variables which were discussed previously with variable of family size

6.3: Relationship of dependent variable contraceptive use with independent variables:

The research would discuss the relationship of dependent variable; use or not use of contraception in following tables with number of independent variables. The strength of relationship between dependent variable, the family size, and independent socioeconomic and demographic variable in detail has been discussed with gamma and chi-square.

Hypothesis No.20 There is strong association between the age at marriage and the use of contraception.

Table: 6.20 Bi-variate relationship of age at marriage and use of contraception.

Table: 6.20 Age at marriage

Age at marriage		Use of Contraception		Row total
		Yes	No	
< 27 years	Number	185	120	305
	Row (%)	60.6	39.34	42.4
27-20 years	Number	135	175	310
	Row (%)	43.54	56.45	43.1
> 20 years	Number	40	65	105
	Row (%)	38.09	61.90	14.6
Column		360	360	720
Total (%)		50	50	100.0

Chi-square = 3.578**

Gamma = -0.109

The table indicates the association of age at marriage of spouse with use or not use of contraception. So the hypothesis the younger ages at marriage the larger the use of contraception and late ages at marriages smaller use of contraceptives is accepted.

The relationship between age at marriage and contraceptive use is examined in table 6.20 indicates that there is association between age at marriage and use of contraception, 45.8% who got married before the age of 27 years and had been using contraception were for greater fewer than the respondent who got married after age of 27 years and were using contraception. The Table also reflects that 38 .9% of the

respondents who got married before the age of 20 years and were nonusers were fewer than the respondent who married after the age of 27 years and not using contraception. It emerges from the table that there is an inverse relationship between age at marriage and use of contraception. As the age at marriage increases the use of contraception decreases i.e. younger the age of marriage more is the use of contraception. It is concluded that later the age at marriage smaller the use of contraception. The chi-square value 3.578 and the gamma value are -0.109 is significant at 1% level. It further establishes association between the age at marriage and family size. The gamma value is -0.109 that confirms the association. The chi-square relationship is significant ($P < 0.01$), indicated strong association between use of contraception and age at marriage.

The age at marriage is an important variable. It directly influences human attitude regarding use of contraception. Women, who passes through the process of reproduction at very early age at the age of thirties or forties needs to have pragmatic approach towards life through increased knowledge and experience concerning contraception. Factually, human interaction with one another for a large times increases their knowledge and understanding about the different secrets of life leads towards innovative behavior pattern, ultimately tended towards change in form of rational behavior. Such rational behavior is totally different than those individual on every step and direction regarding family size and the use of scientific methods as a precautionary measures for small family size. Now the question arises, that what steps should be taken to avoid unwanted pregnancies with the changing age at marriage.

The changes in fertility pattern has been taking place positively affecting decrease in the pattern of reproduction in the region in particular and Pakistan in general (Sathar ,1999). The women who are early-married and never use contraceptives had 1.3 more live births than those who married late and were users of contraceptives (Khan, 1997). It points towards the fact that mature women are relatively more responsible than those who are married early. The mature woman can run the home affairs in a better way and can manage different indigenous problems and issues in a better way and adjust herself with emerging problems found in family and in new in-laws family milieu. The women with lower age at marriage may lack such good qualities concerning managing house and family. They may perform traditional reproductive behavior that may leads

towards bearing the burden of many children at early age resulting different kinds of problems.

Different studies disclosed that the younger age at marriage is linked with larger use of contraceptives. The late age at marriage is associated with lower use of contraception. It may because of late age at marriage results in shorter periods for child bearing. The table showed relationship among age at marriage and use of contraception; with the increase in. age at marriage, the contraceptive use decreased. The percentage of use increased with increase in age at marriage meant increase in age at marriage has dominant effect on the use of contraception, and relationship was significant.

Zafar, (2001) conducted the study that has indicated (hat; the age specific fertility was very high which represented the current behavior of reproduction in Pakistan. The young age people are more fertile thus they use more contraception.

Khan and Qureshi, (1983) found in the study also disclosed that husband i.e. male was higher in age as compared to his female spouse. The cultural trends play very important role in determining male age at marriage. Fertility is defined as ability of man and women to reproduce are high .in younger age. Although Pakistan is among the currently populous countries of the world and has high population growth rate and that is due to early marriages.

6.3.2: Respondent's literacy, and use of contraception.

Hypothesis No.21 There is strong association/relationship between respondent literacy and use of contraception.

Table: 6.21 Bivariate relationship of contraceptive use with respondent's literacy.

Respondent Literacy		Use of Contraception		Row total
		Yes	No	
Yes	Number	280	100	380
	Row (%)	140	200	52.8
No	Number	140	200	340
	Row (%)	28.9	55.6	47.2
Column		360	360	720
Total (%)		50	50	100.0

Chi-square-20.062

Gamma = -.325

The table indicates the association of level of respondent education and use of contraception. The table indicates that 70.4%, employed women respondents who got higher occupation had more use of contraception with smaller families. On the other hand respondent's who had lower occupation or housewives have lower use of contraception and that is 50.0%; had the larger family with more than four children and lower use of contraception. The respondents who had higher occupation with more education had more use of contraception. It can be said that the respondents' occupation is associated with the use/not use of contraception. The significance of association is examined through the Chi-square and Gamma tests. The Chi-square value is (6.90) and Gamma value is (-0.1408) both are significant at 1 percent level indicating that occupation of respondents use/not use of contraception are associated and respondents occupation has depressing effect on use of contraception.

Education is the most important factor that brings about multi-dimensional change; that has long run effect on human collective behavior. Factually, education is a tool of wisdom which increases human statesmanship, insight, intellect, awareness and knowledge about various mysteries of life. Education accelerates human intellectual capabilities and promotes thought and reasoning which ultimately broadens human capacity in thinking and vision. It is undeniable fact that, educational improvements in human beings improve its performance on multiple fronts. Education has dominant effect on different aspects of life including social and economic factors e.g. demographic factors and performance etc. It modifications through inventions and innovations in material culture automatically effects upon the non-maternal culture, that has effect on folkways and cultural values; leading towards the change in behavior and improvements in the life pattern, and finally motivates for higher ideals in life. Marriage and childbearing are postponed till their completion or even until the stage of economic independence Higher educational attainments and longer training needs take longer time to complete, therefore;. It is well said that education is behind all socioeconomic changes and guides towards progress and prosperity. The education has pivotal role for the development of balance family and its development. Sociologists, demographers, social scientists and professionals are agreed that marriage and childbearing, if delayed for higher educational attainments and skill training affects the size of family formation.

WHO (2002-03) described that female education particularly influences the decision-making including reproductive health related matters and education of females in particular influence the decisions about the use of contraception, (PDHS, 2002). Education of spouse i.e. husband and wife increases the use of contraceptives. Nevertheless, education of mother has dominant effect on the use of contraception. The importance of mother's education for fertility decline is recognized. The study conducted by Sathar (1984) and Kazi (1986) is cogent proof of such statement. The present study found a similar kind of situation among the respondents in the study areas. The analysis of the responses collected from the respondents revealed ever use of contraceptive methods.

Many studies supported that respondent's literacy is linked with the use of contraception- The respondent's literacy is associated with the use of contraception. It may be because of respondent's literacy results in shorter periods for child bearing due to eighteen years of education. The table indicates that the association of respondent's literacy and use of contraception reveals that 61.1% with "yes" literacy response has more use of contraception. The table also indicates that relatively little percentage of 55.60%, who has not been using the contraception is not literate, and which means that non-literates are more users. On the other hand the respondents who are literate had little use of contraception. The respondents with the yes response of literacy had low use of contraception. It can be said that the use of contraception is associated with literacy.

Ahmad, & Shazia, (2001) revealed that the educational attainment and fertility levels are inversely related, that is different in different regions of NWFP; more education control fertility, i.e. more use of contraception are highly correlated, increase in ratio of education, has been showing significant relationship of decline in fertility in spouse, with more use of contraception.

Kabir et al. (1989) described that the status of women and the use of contraception are highly related. The logistic regression analysis proved the results and the data disclosed that husband-wife communication, contact with family planning workers and female education are associated with the family size and adoption of family planning program i.e. the use of contraception.

Freedman (1987) concluded that education has dominant affect on reproductive health and family planning practices.

6.3.3 Husband's literacy and use of contraception:

Hypothesis no 22 There is strong association between respondent's husband literacy and use of contraception.

Table: 6.22 Bivariate relationship of contraceptive use with husband literacy.

Husband's Literacy		Use of Contraception		Row total
		Yes	No	
Yes	Number	123	310	437
	Row (%)	58.3	31.7	78.5
No	Number	23.7	50	287
	Row (%)	33.5	66.5	21.5
Column		438	282	720
Total (%)		60.8	39.2	100.0

The table indicates that the association of respondent's husband's literacy and use of contraception. It reveals that 68.3 % with yes literacy response has more use of contraception. The table also indicates that 33.5%, who has not been using the contraception were not literate, which means that non-literate are not using contraception. On the other hand the respondents who are literate are more users of contraception. It can be said that the respondent's husband literacy is associated with use of contraception. The significance of association is examined through the Chi-square and Gamma tests. The Chi-square value is (60.27) and the Gamma value is (0.6206), both are significant at 1 percent level indicating that husband literacy has dominant effect on use of contraception.

Education always influences the perceptions, cognition and motivation of an individual regarding decisions about future and the number of children.. It is an effective tool regarding the socioeconomic development of family. An educated couple enjoys the life and tries to show performance. Besides, the influence of wife's education, the current study also explored the effect of husband education on family size.

The above table showed that respondent's husband literacy is important variable for the ever use of contraception. Many studies revealed and discussed that respondent's husband's literacy is linked with use of contraception. It may be because of respondent's husband literacy results in more use of contraception.

So the hypothesis that the high would be the literacy of respondent's husband more would be the use of contraception and low would be level of fertility is proved.

The spouse literacy and contraceptive use was very much related. The table depicted that highly educated spouse would be using more contraception. The percentage regarding literacy is 68.3 percent, whereas those who were not using contraception were 33.5 percent.

Fayza, (2003) discussed and disclosed about literacy of men, disclosed that male with more literacy tend to have smaller families with the more use of contraception due to more awareness about the problems in large families and about problems of mother and child including income and employment.

6.3.4 Respondent level of education and use of contraception:

Hypothesis No.23 There is strong association between contraceptive use with Respondent's level of education.

Bi-variate relationship of contraceptive use with respondent level of education

Education is an important variable with deep effects on individual and society. Education brings about change. The traditional system could be changed through education; it creates and cultivates a behavior pattern that is different from orthodox behavior. Female education has dominant role in bringing about change effecting family affairs, enforcing a change in family norms. An educated couple has control upon fertility. The culture based on modernity is created by education. The Education has influence upon individual and collective behavior, A family with more education can manage routine affairs successfully, by planning for higher ideals.

Table: 6.23 Respondent's level of education.

Level of Education		Use of Contraception		Row total
		Yes	No	
Illiterate	Number	199	129	318
	Row (%)	60.06	40.56	44.2
Primary	Number	60	50	110
	Row (%)	54.54	45.45	15.3
Secondary	Number	113	81	194
	Row (%)	58.2	41.8	26.9
Higher	Number	74	24	98
	Row (%)	75.5	24.5	13.6
Column		438	282	720
Total (%)		60.8	39.2	100.0

Chi-square = 23.478** Gamma = 0.205

Education is the basic tool of social change. Education increases human awareness and knowledge about various facts of life. Education promotes skills thought and reasoning and broadens human vision which could leads towards socioeconomic improvement effecting demographic attitude and performance education modifies traditional trends, cultural values and improves the life pattern and finally motivates for higher ideals in life. Higher educational attainments and longer training needs takes longer time to complete, therefore; marriage and childbearing are postponed till their completion or even until the stage of economic independence It is well recognized fact that education is behind all developmental changes and guides towards progress and prosperity. The role of education has been well recognized by all social scientists. Marriage and childbearing are delayed mostly for higher education and training which in turn effect family formation (PDHS, 1991).

Female education particularly influences the decision-making including reproductive health related matters (Fekyisetan, 2000).

Educational attainments influenced contraceptive use and the family size (PDHS, 1991). Education of both husband and wife increases the use of contraceptive methods (Kiani, 2001). However, mother's education has much higher influence than husband's

education on the use of contraception and family size. The significance of mother's education for fertility decline has been empirically proved by Sathar (1984) and Sathar (1986). The present study found a similar kind of situation among the respondents in the study areas. The analysis of the responses collected from the respondents revealed that respondent's level of education is a very important indicator for the use of contraception. Different studies supported that respondent level of education is linked with use of contraception. In fact, the level of education is associated with use of contraception to a large extent. It may be because the level of education resulted in low fertility behavior with shorter periods for child bearing of females and males. So the hypothesis that high would be the level of education of respondent, high would be use of contraceptive and low level of fertility.

6.2.5 Husband's education level and use of contraception:

Hypothesis No.24: There is a strong association/relationship between contraceptive use/not uses with level of respondent's husband education.

Table: 6.24 Bi-variate relationship of contraceptive use with husband level of education.

Husband's level of Education		Use of Contraception		Row total
		Yes	No	
Illiterate	Number	15	43	58
	Row (%)	15.7	48.3	8.1
Primary	Number	151	107	258
	Row (%)	58.5	41.5	35.8
Secondary	Number	70	42	112
	Row (%)	62.5	37.5	15.6
Higher	Number	202	90	292
	Row (%)	64.0	36.0	40.6
Column		438	282	720
Total (%)		60.8	39.2	100.0

Chi-square - 56.24** Gamma - -0.399

The table 6.24 indicates the association of level of education and use of contraception. The table indicates that 75.5%, who got higher education had more use of

contraception with smaller families. On the other -hand the respondent who had lower education with lower use of contraception and that is 55.0% had the larger family with more than four children than the respondents who had more education and more use of contraception. It can be said that the education is associated with the use of contraception. The significance of association is examined through the Chi-square and Gamma tests. The Chi-square value is (17.05) and the Gamma value is (0.2303); both are significant at 1 percent level indicating that education and use of contraception are associated positively and have effect on one another.

Education is the basic tool of versatile and local social change. Education increases human vision, know-how, awareness and knowledge about various facts of life. Education promotes skills thought and reasoning and broadens human vision which could leads towards socioeconomic development and improvement human status; ultimately effecting demographic attitude and performance of human beings in society. Education modifies traditional trends, cultural values and improves the life pattern and finally motivates for higher ideals in life. Higher educational attainments and lengthy training needs in societal change takes longer time to complete, therefore; marriage and childbearing are postponed till their completion or even until the stage of economic independence. It is well recognized fact that education is behind all developmental changes and guides towards progress and prosperity. The role of education has been well recognized by all social scientists. Marriage and childbearing are delayed mostly for higher education and training which in turn effect family formation (PDHS, 1999).Female education influences the all decision-making including number of children and reproductive health problems.

Educational attainments influenced contraceptive use and the family size (PDHS, 1991). Education of both husband and wife increases the use of contraceptive methods (Kiani, 2001). However, mother's education has much higher influence than husband's education on the use contraception and family size. The significance of mother's education for fertility decline have been empirically proved by in Sathar (1984) and Sathar (1986). The present study found a similar kind of situation among the respondents in the study areas. The analysis of the responses collected from the respondents revealed that respondent's level of education is very important indicator for the use of

contraception. Different studies supported that respondent level of education is linked with use of contraception. In fact the level of education is associated with use of contraception to large extent. It may because of level of education resulted in low fertility behavior with shorter periods for child bearing of females.

Respondent's husband level of education is very important indicator for the use of contraception. Different studies supported that respondent husband level of education is linked with use of contraception. The husband level of education is associated with use or not use of contraception. It may because of husband level of education resulted in fertility behavior with shorter periods for child bearing of females. The table indicates the association of level of husband education and use of contraception. The table indicates that 64.0%, husbands who got higher education had more use of contraception with smaller families. On the other hand respondent's husbands who had lower education have lower use of contraception and that is 15.0%; had the larger family with more than four children. The respondents who had more education had more use of contraception. It can be said that the husband education is associated with the use of contraception. The significance of association is examined through the Chi-square and Gamma tests. The Chi-square value is Chi-square value is (39.01) and the Gamma value is (-0.303) both are significant at 1 percent level indicating that education and use/not use of contraception are associated and husband education has depressing effect on use of contraception.

So the hypothesis that high would be the level of education of respondent; high would be use of contraceptive and low level of fertility.

Wang R H et al (2003) identified and explored six factors associated with adolescents' pregnancy of different women at childbearing age by using multiple logistic regression analysis. These factors included: poor contraceptive knowledge, self-efficacy, low effective contraceptive use, low socio economic status, more frequent mating and older age. The result provided health professional to develop prevention methods, which are more effective to mitigate this problem. The results used for effective policy formulation.

6.3.6 Respondent's occupation and use of contraception:

Hypothesis No.25 There is strong association between respondent occupation and use of contraception.

Table: 6.25 Bivariate relationship of contraceptive use with respondent's occupation.

Level of occupation		Use of Contraception		Row total
		Yes	No	
House wife	Number	311	219	530
	Row (%)	58.7	41.3	73.6
Employee	Number	88	37	125
	Row (%)	70.4	29.6	17.4
Business at home	Number	30	17	47
	Row (%)	63.8	36.2	6.5
Business by selling	Number	9	9	18
	Row (%)	50.0	50.0	2.5
Column		438	282	720
Total (%)		60.8	39.2	100.0

Chi-square-6.90* Gamma =-0.1408

Occupation and income from job increases financial authority, the most important element of women autonomy after education is her income that is related with occupation of respondent. It enhances her decision power and raises her social status through financial earning that ultimately leads towards independence in decision making. Paid job outside home also increases women mobility and experiences of fellow workers, seniors and all others with whom she interacts during the discussion of various responsibilities. Frequent interactions outside home broaden her knowledge and contribute towards confidence building. Such job results in income increases and women autonomy, which ultimately effects upon positive bearing on her decision-making authority. Increased knowledge and mobility, enhance social status, financial independence, and improve decision-making; ultimately improve women control on their fertility and motivate women to have low burden of childbearing and child rearing. The woman prefers to adopt remedial measures to avoid unplanned and unintended pregnancy and birth. Female autonomy through labor participation enhances her knowledge, and adoption of family planning services. It builds consistence to cultural pressures and empowers her to exercise better control on fertility (Ahmed and Perveen, 2002). Such financial empowerment improves her access and affordability awards the use of health and family planning services. The current study came out with similar type

of financial and reported that ever use of contraceptive increased with the increased women income from paid job outside home.

Respondent's occupation is important factor for the use of contraception. Different studies supported that respondent occupation is linked with use of contraception. The respondent occupation is associated with use or not use of contraception. It may be because of occupation of respondent results in fertility behavior with shorter periods for child bearing of females.

So the hypothesis that high would be the occupation of respondent high would be use of contraceptive and low level of fertility.

Uhlmann, (2004) revealed in one of paper and traced the effective gender roles in domestic life regarding division of labor effecting behavior pattern, [t means that posh occupation has multidimensional effects, i.e. effects on family size, number of children and use of contraception.

6.3.7 Husband's occupation and use of contraception:

Hypothesis No.26 There is strong association between respondent's husband occupational status, and use of contraception.

Table: 6.26 Bi-variate relationship of contraceptive use with husband's occupation

Husband's Occupation		Use of Contraception		Row total
		Yes	No	
Govt. Employees	Number	199	106	305
	Row (%)	62.0	38.0	42.4
Agriculturists	Number	11	67.64	34
	Row (%)	32.35	38.2	4.7
Business	Number	83	28	111
	Row (%)	74.8	25.2	15.4
Self employed	Number	61	58	119
	Row (%)	51.3	48.7	16.5
Unemployed	Number	14	12	26
	Row (%)	53.8	46.2	3.6
Living abroad	Number	70	55	125
	Row (%)	56.0	44.0	17.4
Column		438	282	720
Total (%)		60.8	39.2	100.0

Chi-square - 29.54** Gamma= 0,126

Occupation and income from job increases financial autonomy and authority in a family, particularly of household decision making. The most important element of women's husband income after education is her husband's income that is related with occupation of respondent's husband. It enhances decision power and raises her social status through financial earning that ultimately leads towards independence in decision making. A high status job is a symbol of high social mobility and achieved status. Posh job of her husband also increases women status and busy man is tended towards high achievements is a symbol of horizontal mobility which is a pride for a family as well as demographic trends gets change from such inclinations and experiences of fellow workers, seniors and all others with whom the interacts during the discussion of various responsibilities in higher status jobs. Frequent interactions with learned and intellectuals during the service tenure outside home broaden the knowledge and contribute towards confidence building. Such job results in income increases and the family status, which ultimately effects upon positive bearing on her decision-making authority. Increased knowledge and mobility, enhance social status, financial independence, and improve decision-making; ultimately improve women control on their fertility and motivate women to have low burden of childbearing and child rearing. The woman prefers to adopt remedial measures to avoid unplanned and unintended pregnancy and birth. Female autonomy through labor participation enhances her knowledge, and adoption of family planning services. It builds consistence to cultural pressures and empowers her to exercise better control on fertility (Ahmed and Perveen, 2002).

Such financial empowerment improves her access and affordability awards the use of health and family planning services. The current study came out with similar type of financial and reported that ever use of contraceptive increased with the increased women income from paid job outside home.

Respondents' husband's occupation is an indicator for the use of contraception. Different studies supported that respondent husband's occupation is linked with use of contraception. The husband occupation is associated with use of contraception. It may because of occupation of respondent's husband's results in fertility behavior with shorter periods for child bearing of females. The table indicates the association of level of husband occupation and use of contraception. The table indicates that 74.8%, employed

respondents husbands who got higher occupation of business had more use of contraception with smaller families. On the other hand respondent's husbands who had lower occupation have lower use of contraception and that is 51.3%, i.e. self employed; had the larger family with more than four children and lower use of contraception. The respondents' husbands who had higher occupation with more education had more use of contraception. It can be said that the respondents' occupation is associated with the use of contraception. The significance of association is examined through the Chi-square and Gamma tests. The Chi-square value is (29.54) and Gamma value is 0,126; both are significant at 1 percent level indicating that occupation of respondents husband is highly associated with use/not use of contraception and respondents occupation has depressing effect. So the hypothesis that high would be the occupational status of respondent high would be use of contraceptive and low level of fertility was proved.

6.3.8 Family Income and the use of contraception:

The objective attitude about the satisfaction level of family income and reproductive health of women were highly related with one another. Satisfaction with the suitable income level are related to two fundamental attributes of the satisfaction level include the manner by which money was spent; standard maintenance with reference group against the attributes judge by these relationship. The table 6.27 disclosed that respondents with high percentage of family income had high score of index variable of family income had direct relationship 'with reproductive health. It showed facilities provided in family health program were directly and significantly related to family income and satisfaction level.

6.3.9 Family income and use of contraception:

Hypothesis No.27 There is strong association and direct relationship between family income and use of contraception.

Table: 6.27 Bi-variate relationship of contraceptive use with family income.

Family income		Use of Contraception		Row total
		Yes	No	
< 5000	Number	105	159	264
	Row (%)	39.77	60.22	36.7
5000-15000	Number	187	90	277
	Row (%)	60.3	39.7	38.5
15000-25000	Number	56	23	79
	Row (%)	70.9	29.1	11.0
> 25000	Number	90	10	100
	Row (%)	70.0	30.0	13.9
Column total		428	282	720
Total (%)		60.8	39.2	100.0

Chi-square- 93.38** Gamma =-0.552

Income is important indicator of social standing of someone in the society income does affect the social behavior of the social system. In the study the relationship between family income and family size has been explored.

Table 6.1 indicates that 45.5% of the respondents who had family income lesser than Rs5000 had small family size were fewer than respondents who had the income more than Rs25000 and had the same family size (55.0%). On the other hand respondents who had the income more than Rs20000 with large family size (9%) were far fewer than respondents who had the same family size with low income less than 5000 i.e.(22.3%) in number. It can be said that as the income increases the family size decrease. The chi-square value also establishes this relationship at 5% level.

The chi-square value indicates the significant ($P < 0.01$) results, that there is strong association between two ordinal variables i.e. family size and family income. The negative sign of Gamma indicated that the relationship is very strong. The Gamma is symmetric measure ranges from -1 To +1

In the above table, the relationship of contraception with family income was given, which described that with the change in income i.e. more income would affect positively on the use of contraception. It meant that more would be the income, the more

would be use of contraception would be high 45.1% whereas medium family size have 35.3%, and for large family or extended family the percentage was 19.6. Thus it was concluded that respondents with low level of income had low use of contraception. A family with income lesser than rupees 5000 has low would be the use of contraception. The data analysis found that higher would be income higher would be the use of contraception, which was proved by negative relationship of gamma.

More over the relationship of income and use of contraception was significant, i.e. the value of chi-square.

Income from job is consideration as personal income. In case such income increases her financial authority, the most important element of women autonomy after education. It enhances her assertive power and raises social status through financial independence. Paid job outside home also increases women mobility. She learn from the experiences of fellow workers, seniors and all others with whom she interacts during the discussion of various responsibilities. Frequent interactions outside home broaden her knowledge and contribute towards confidence building measures. Such job and results income increases women autonomy, which ultimately yield positive bearing on her decision-making authority. Increased mobility, enhance social status, financial independence, and improve decision-making improve women control on their fertility motivate women to bear lesser burden of childbearing and child rearing. The women prefer to adopt remedial measures to avoid unplanned and unintended pregnancy and birth. Female autonomy through labor participation enhances her knowledge, and adoption of family planning services. It builds consistence to cultural pressures and empowers her to exercise better control on fertility Ahmed, (2002). Such financial empowerment improves her access and affordability awards the use of health and family planning services. The current study came out with similar type of financial and reported that ever use of contraceptive increased with the increased women income from paid job outside home.

Family income is an important variable of family size. Different studies revealed that family income is linked with the use of contraception. It may because of more income results in shorter periods for child bearing. The table indicates that the association of family income of spouse with use of contraception. The table indicates

that 54.9%, who got less than five thousands income are far fewer than the respondents who got high income i.e. (70.0%) and had the more use of contraception had smaller families .On the other hand the respondents who had lower income had the larger family (more than four children) are more numerous than the respondents who had lesser use of contraception and had little use. It can be said that the family income is associated with the use of contraception. The significance of association is examined through the Chi-square and Gamma tests. The Chi-square value is (93.38) and the Gamma value is (-0.552) both are significant at 1 percent level indicating that family income has depressing effect on family size. So the hypothesis that the lower would be the family income lower would be the use of contraception and high would be fertility.

The above table related to family income, use, and not use of contraception elaborated that lesser would be family income; lower would be the contraceptive use. The hypothesis proved, and indicated that high would be the income more was use of contraception. The significance of chi-square value and Gamma value was witness to it. The response regarding use or not use high with positive response i.e. 60.8 percent and for no response is 39.2. It was concluded from the discussion that positive response was higher than negative.

6.3.10 Type of family and use of contraception:

Hypothesis No.28 There is strong association between family type and use of contraception and fertility level.

28(a) there is more use of contraception in joint family, an^ low level of fertility.

28 (b) there is a little use of contraception in nuclear family, thus high fertility.

Table: 6.28 Bi-variate relationship of contraceptive use/not use with type of family.

Type of family		Use of Contraception		Row total
		Yes	No	
Nuclear	Number	186	25	211
	Row (%)	88.2	11.8	29.3
Joint	Number	152	357	509
	Row (%)	29.9	70.1	70.7
Column total		338	282	720
Total (%)		60.8	39.2	100.0

Chi-square = 203.48* * Gamma = 0.892

The type of family of males and females is very important indicator of the use of contraception. Different studies supported that type of family is linked with use of contraception. The type of family size is associated with use or not use of contraception. It may because of type of family is associated with, the use of contraception results in shorter periods for child bearing. The table indicates the association of type of family with use of contraception. The table indicates that 88.2%, who got nuclear family have been using contraception far fewer than the respondents who got joint family i.e. (29.7%) and had been using contraception and have smaller families .On the other hand the respondents who had nuclear families had more use of contraception with the smaller family size. It can be said that the type of family is associated with use/not use of contraception. The significance of association is examined through the Chi-square and Gamma tests: The Chi-square value which is (203.48) and the Gamma value is (0.892) both are significant at 1 percent level indicating that type of family has depressing effect on the use of contraception. So the hypothesis proved that there is strong association between family type and use/not use of contraception and fertility level.

The chi-square value indicated the significant ($P < 0.01$) results that there was strong association between contraceptive use/ not use and type of family.

Haq (1980) stated that spouse education, occupation and type of family has impact on family size. The joint families have small number of children though the use of contraception is low.

6.3.11 Family setup preference and use of Contraception:

Hypothesis No.29 There is strong association between family set up and contraceptives use.

Table: 6.29 Bi-variate relationship of contraceptive use/not use with family setup preference

Family setup preference		Use of Contraception		Row total
		Yes	No	
Patriarchal	Number	252	261	513
	Row (%)	49.12	50.87	71.3
Matriarchal	Number	186	21	207
	Row (%)	89.85	10.14	28.8
Column total		438	282	720
Total (%)		60.8	39.2	100.0

Chi-square = 102.7 Gamma = -0.803

The family setup preference is very important indicator of contraceptive use. Different studies supported that family set up preference is linked with larger use not use of contraception. Whereas, the family set up preference is associated with use of contraception. It may be because of family set up preference results in shorter periods for child bearing. The table indicates the association of family set up preferences of spouse is related with use/not use of contraception. The table indicates that 62.8%, who got patriarchal system has low use of contraception, whereas those who got matriarchal system has low use of contraception i.e. (56.8%) and had low fertility level with the smaller families .On the other hand the respondents who had matriarchal family system had the larger family than the respondents who had smaller use of contraception with 56.1%.It can be said that the age at marriage is associated with family size. The significance of association is examined through the Chi-square and Gamma tests. The Chi-square value is (102.7) and the Gamma value is(-0.803) both are significant at 1 percent level indicating that family set up preference has depressing effect on use/not use of contraception.

So the hypothesis that there is strong association between family set up preference and contraceptives use or not use.

The above stated table showed that the family setup has dominant effect on use of contraception, lesser would be use in patriarchal family and more would be use in matriarchal family. The relationship is non significant in chi-square.

Naushin, (1997) while discussing future population growth of Pakistan anticipated about the use or not use of contraception and family size, described that the demand for children and measuring their gender preferences; the Pakistani society is considered to be traditional patriarchal in nature with respect to its family structure and fertility behavior i.e. using or not using contraception is always with the consent of husband.

6.3.12 Sex preference and use of contraception:

Hypothesis No.30 There is strong association between sex preference and use of contraception.

30(a) High would be sex preference low would be use of contraception.

30 (b) Low would be the sex preference high would be the use of contraception.

Table: 6.30 Bivariate relationship of contraceptive use with sex preference.

Sex preference		Use of Contraception		Row total
		Yes	No	
High	Number	16	92	108
	Row (%)	14.8	85.2	15.0
Medium	Number	217	148	365
	Row (%)	59.5	40.5	50.7
Low	Number	205	42	247
	Row (%)	83.0	17.0	34.3
Column total		438	282	720
Total (%)		60.8	39.2	100.0

Chi-square =147.20** Gamma =-0.7011

Sex Preference

Sex preference are gender bias is a important factor influencing contraceptive behaviour are use. Table 6.30 describe the association of sex preference and contraceptive use, the table indicate that 40.8% who have high score are index variable sex preference and using contraction were for fewer that that the respondents who had the same score and not using contraception. Table also reflects that the respondents who canned low score on index variable (sex preference and using contraction are 83.0) were for greater than the respondents who had low sex preference and not using contraception. Their percentage is 17.0%. It can be said that higher sex preference lower contraceptive use. And lower the sex preference higher the contraceptive use. The significance of relationship of sex preference and contraceptive use is also established through the chi square χ^2 . The value of chi square is 147.20 and gamma value is 0.7011 indicating the strong negative relationships are association between sex preference and contraceptive use.

Sex preference is mostly the characteristic of traditional society where male child is preferred over the female. Besides, many other social ills, the element of sex preference contravene the rationale of family formation through family planning. Many research studies conducted on the subject reported that low sex preference increased the use of family planning methods while high-level preference increased the non-use and promoted large family traditions in society. The study under discussion also met with

similar type of result in the study areas. The element of sex preference was explored during field survey through a matrix question in the measuring instrument.

This study of the effect of sex preference on family size remained the center of attention in many demographic studies. The government and non-government sectors launched a number of campaigns to reduce this social ill from the society. But the element of sex preference is still operative in and is a characteristic of developing countries particularly those with agrarian economic. Male dominance and women subordination are the main characteristics of these society, while contributes towards the elements of sex preference. Women are compelled to perform dictated fertility under the influence of male domination and boy preference.

Sex preference and use of contraception of males and females is very important indicator. Different studies supported that sex preference is linked with use of contraception. The sex preference is associated with more or less use of contraception. It may be because sex preference results in shorter periods for child bearing. The table indicates the association of sex preference with use of contraception. The table indicates that 14.8%, who had high sex preference has low use of contraception than the respondents who got low sex preference, the use is high i.e. (83.0%) and had the smaller use of contraception- .On the other hand the respondents who had low use of contraception had larger family (more than four children) are more numerous (33.0%) than the respondents who had high sex preference had large families and had low use of contraception, its percentage is 14,8%.It can be said that the age at gender preference is associated with use of contraception. The significance of association is examined through the Chi-square and Gamma tests. The Chi-square value is (147.20) and the Gamma value is (-0.7011), both are significant at 1 percent level indicating that age at marriage has depressing effect on family size.

The hypothesis proved that there is strong association/relationship between sex preference and use or not of contraception.

Bivariate relationship with sex preference and contraceptive use not use, given in the table above showed that sex preference was high in lower class family. Therefore, the use of contraception in lower and sex preference was low; therefore, the use' of contraception was high. The significance of chi-square backs our statement.

6.3.13 Domestic chores and use of contraception:

Hypothesis No.31 There is strong association/ relationship between domestic chores and contraceptive use.

Table: 6.31 Bivariate relationship of contraceptive use with domestic chores.

Domestic chore		Use of Contraception		Row total
		Yes	No	
Low	Number	158	185	343
	Row (%)	46.1	53.9	47.6
Medium	Number	85	50	135
	Row (%)	63.0	37.0	18.8
High	Number	215	27	242
	Row (%)	88.8	11.2	33.6
Column total		458	262	720
Total (%)		63.6	34.4	100.0

Chi-square- 112.2** Gamma --0.642

Husband participation in domestic chores has been advocate a factor of contraceptive use in developing society in Pakistan Table 6.31 indicates the effect of relationship between husband participation in domestic chore is reflected. Table indicates that 46.1% of the respondents husbands who had low participation in domestic chore were lower use of contraception than the respondents who had the same level of participation in domestic chore and their husband not participating in domestic chore.

On the other hand the percentage of the respondents who were user of contraction and high participation in domestic chore their percentages (8.8%) were higher than the respondents who had the same level of participation in domestic chores and not using contraception. It can be said that participation does effects contraceptive behaviour. There are likely more chances to women use contraception whose husband sharing in performing domestic task, that the women to whose husband do not participate in domestic chore. The chi square value 112.2 and gamma value 0.642 indicates that there is strong association between husband participation in domestic activities and contraceptive use.

The free mobility, restricted environment and confinement entirely work in different directions and lead to develop different type of human attitude. In past women were considered as queens of the kitchen but the modern age does not believe in it. Women are now actively involved in all the spheres of life and even they are even performing better, than men in some fields. In developing countries about half of population is comprised of females. These countries cannot progress without involving women in all spheres of life. However, there are societies in the rural part of developing world, who still believe that women should only bear and rear children and remain confined to home. In these societies, women have restricted mobility. The study of women mobility and its influence on family size is very important subject in the demographic research. Actually the level of women mobility shows that how far they are independent in decision making with respect to their movement outside home. Women visit to health centers, and participation in social gatherings increase their awareness. Such women behave in a quite different way than those who have restricted mobility or remain confined to home. Like ever use of contraceptive, women mobility outside home influences their fertility through control on number of children ever born. High mobility means liberal home environment and low mobility indicates restricted access to health and family planning services. Pre-and post- natal cares can be obtained by visiting health professionals and clinics. These periodic check ups during pregnancy and after delivery purely depend on the women access to health services which in turn depends on their level of mobility outside home. Women mobility to social occasions and health services can broaden their base of knowledge and vision about new family development strategies and even expose them to safe motherhood practices and adverse effects of frequent pregnancies and births. During the current study, it was found that high mobility of women outside home promoted small family. The lower mobility on the other hand favored the traditions of large family. The results are in agreement with the findings of the earlier empirical studies. Increased women mobility promoted small family through appropriate control on their fertility whereas restricted mobility lead to produce many children under the influence of dictated fertility (Khan, 2000). The higher mobility enhanced women independence, eased their access to health and family planning services and improved their control on fertility (Mir et-al., 2000).

The relationship of contraceptive use with domestic chores is important variable for the use of contraception. Different studies revealed and supported that domestic chores is linked with use of contraception. It may be because of domestic chores is work sharing related with democratic environment in family that effects behavior pattern of spouse related with use of contraception; ultimately results in shorter periods for child bearing. The table indicates the participation in domestic chores of spouse with use of contraception and its intensity. The table indicates that high participation in domestic chores 88.8%, who has high participation in domestic chores has high use of contraception i.e. (88,8%) and had the smaller families .On the other hand the respondents who had high participation in domestic chores had more use of contraception. Those who had more participation in domestic chores had more use of contraception its percentage is 46.1%. It can be said that the age at marriage is associated with family size. The significance of association is examined through the Chi-square and Gamma tests. The Chi-square value is (112.2) and the Gamma value is (-0.642) both are significant at 1 percent level indicating that domestic chores has depressing effect on use/not use of contraception.

So the hypothesis proved that there is strong association/ relationship between domestic chore and contraceptive use.

Zafar et al. (1997) examined the influence of women's autonomy on reproductive health. They measured women autonomy in terms of women involvement in socio-economic and social activities, women participation in the decision making process were the important indicators of women autonomy and has bearing upon reproductive health in terms of number of children ever born.

6.3.14 Household activity and ever use of contraception:

Hypothesis No.32 There is strong relationship between contraceptive use and participation in household activity/permisiveness.

Table: 6.32 Bi-variate relationship of contraceptive use with husband's permissiveness.

Household activity		Use of Contraception		Row total
		Yes	No	
Low	Number	89	122	211
	Row (%)	42.2	57.8	29.3
Medium	Number	182	150	332
	Row (%)	54.8	45.2	46.1
High	Number	167	10	177
	Row (%)	94.4	5.6	24.6
Column total		438	282	720
Total (%)		60.8	39.2	100.0

Chi-square- 119.31** Gamma--0.6162

Husband permissiveness and use of contraception in developing society gender roles really make difference in determining family formation issues. Developing society like Pakistan are male dominated societies. Husband attitude toward his wife whether cooperative or non cooperative, rational and irrational place a vital role in fertility regulating behaviour of women (Zafar, 1996).

Table 6.32 indicates the effect of husband permissiveness on the wife behaviour regarding contracting use. 42.2% of the respondents who had low score on index variable husband permissiveness were using contraception were fewer than the respondents who had the same level of permissiveness were not using contraception. The table 6.32 indicates that 94.4% of the respondents who attained high level of husband permissiveness and were using contraception were for greater than the respondents who had the same level of husband permissiveness and not using contraception.

These finding reflects that husband permissiveness to their wife has bearing upon the contraceptive use.

Women with high level of permissiveness had high level of contraceptive use than the women with the low level of husband permissiveness in their mobility outside the home. The chi square value 119.31 and Gamma 0.6162 value indicates that there is strong relationship between husband permissiveness to their wives and contractive use

In gender roles and relations, different dimensions of women autonomy have been explored. Such autonomy is generally measured in terms of husband-wife interaction on family matters, women physical mobility outside home for health care, participation in social gatherings etc. women participation in decision making and spousal communication on family planning issues. The women control on monthly household expenditure and their involvement in income generation activities include the other dimensions of women autonomy. All these dimensions indicate the extent to which a woman enjoys close relationship with her husband and the level of financial authority. The study of these aspects is of vital importance in demographic research and has significant influence on family planning use and in limiting family size. The current doctoral level research attempted to explore these dimensions and have been discussed under specific headings in the forthcoming section.

Husband's permissiveness is very important indicator of use of contraception. Different studies supported that husband's permissiveness is linked with use of contraception. The husband's permissiveness is associated with use of contraception. It may be because husband's permissiveness results in shorter periods for child bearing of females due to more use of contraception. The table indicates the association of husband's permissiveness for the use of contraception. The table indicates that 42.2%, husband's permissiveness are far fewer than the respondents who got high scores in use of contraception with the high score in households activity i.e. (94.4%) had the smaller use of contraception. On the other hand the respondents who had low participation in households activity had lower use of contraception with larger family (more than four children, the respondents who had low participation in households activity had low use of contraception late age at marriage and its percentage is 42.21%. It can be said that the households activity is associated with use/not use of contraception. The significance of association is examined through the Chi-square and Gamma tests. The Chi-square value is (119.31) and the Gamma value is (-0.6162), both are significant at 1 percent level indicating that participation in household activity has depressing effect on use/not use of contraception. So the hypothesis is proved that there is strong relationship between contraceptive use/not use and participation in household activity.

6.3.15 Contraceptive use with women participation in decision making processes:

Hypothesis No.33 There is strong association between contraceptive uses with women participation in decision making processes.

Table: 6.33 Bi-variate relationship of contraceptive use with women participation in decision-making.

Women participation		Use of Contraception		Row total
		Yes	No	
Low	Number	34	35	69
	Row (%)	49.3	50.7	9.6
Medium	Number	237	158	395
	Row (%)	60.0	40.0	54.9
High	Number	167	89	256
	Row (%)	65.2	34.8	35.6
Column total		438	282	720
Total (%)		60.8	39.2	100.0

Chi-square = 6.06* Gamma = 0.1576

Women in empowerment in decision making and use of contraception. The women empowerment in decision making regarding family is a crucial aspect with links with family building and contraceptive use. Table 6.33 and the association of women participation in decision making process and contraceptive use reflects that 60% and 65.2% of the respondents who had medium and low level of participation in decision making process and were using contraception in high percentage than the respondents with the same level of participation in decision making process and not using contraception. That is 40 percent and 34.1% respectively. Chi square value also supports this association at 1 percent level of significance.

The idea of female participation in decision-making is one of the most important aspects of woman feasible involvement within family of female participation is redistribution of power that enables the women to be deliberately included in determining how powers are shared and different programs in family are operated including work and information sharing in home affairs. It should not be empty rituals but having real power needed to affect out comes to the process of decision making.

Factually, the women, who have the ability to influence decisions about in family, that they should have more authority to change the situation for their benefits.

Such authority depends upon the social milieu they enjoy during the process of early socialization in their primary group which is found in her parent's home environment. However, that depends upon her abilities in influencing decision-making; which is reflected with her knowledge, education and common sense. Those females who don't have the guts to create a balance conducive environment in her in-laws house are not given share in decision-making. Such women behavior is introvert and egoistic proves higher fertility level with a large family. Such women always suffer with health problems, and found high burden of childbearing rearing and caring.

The lower or non-use of family planning methods keeps them away from the benefits of safe motherhood and prosperous living. Women with more autonomy in household decision-making were free to travel to health facilities and exhibited higher use of birth control measures (Population Council, 1997). Wife equality in decision making influenced fertility negatively through lower demand for children and earlier and more effective use of birth control methods (Beckman, 1983). It promoted democratic setting in family, .increased women access to birth control technology and promoted contraceptive use (Zafar, 1993). The responses of the respondents gathered during data collection for this study revealed more or less the same situation prevailing in the study areas. It was found that increased decision making authority resulted increase in the ever use of contraceptive to avoid the risk of unplanned pregnancies. On the other hand, the low participation in decision-making had increased never use of family planning methods.

Women participation in decision-making is a confidence building measure for women in home environment which is influence most of the decisions for her family benefits, which promotes the element of reasoning and logic among couples. Such environment is quite beneficial for limiting family size, through control on unwanted births. It increases women freedom of exchange of views with her spouse in spousal discussion on birth control measures. The process of freedom in home environment yields a number of benefits including small family size, sound health of her family, children with high I,Q, prosperity, happy home with better management and rapid

development of better strategy at the time of crisis; when male members are away from home . Such women have belief on innovations due to novel ideas, that leads her towards the change and belief in the idea of large family traditions with low quality.

The present study revealed that use of contraception and family size decreased with the increased level of respondents' participation in decision-making. These findings have support from earlier studies on the subject. In this regard, Davis (1996) reported that women with little say in decision-making in Pakistan had reduced control on fertility.

The woman participation in decision making is associated with the use of contraception. It may because of woman participation in decision making results in shorter periods for child bearing. The table above indicates the association of women participation with use of contraception. The significance of association is examined through the Chi-square and Gamma tests. The Chi-square value is (6.06) and the Gamma value (-0.1576), both are significant at 1 percent level indicating that women decision making has positive effect on use/not use of contraception.

So the hypothesis proved that more would be the women participation in decision-making high would be the use of contraception and low would be level of fertility younger ages at marriage the larger the family size and late ages at marriages and smaller the family size.

6.3.16: Contraceptive use, and communication on family matters;

Hypothesis No.34 There is strong association between communication on family matters and the use of contraception.

Table: 6.34 Bi-variate relationship of contraceptive use with communication on family matters.

Communication of family matters		Use of Contraception		Row total
		Yes	No	
Low	Number	100	120	237
	Row (%)	45.45	41.8	32.9
Medium	Number	138	110	231
	Row (%)	58.2	47.6	32.1
High	Number	200	53	252
	Row (%)	79.36	20.63	35.0
Column total		438	282	720
Total (%)		60.8	39.2	100.0

Chi-square - 18.60**

Gamma = -0.1833

Spousal communication on family and non family matter does effect the contract vie use behaviour. The women with better communication with husband were more like to use contraption the women with better communication wee like to use contraception than with the women who have low level of communication with husband were not using contraception at high level. Table 6.34 indicates that 100%, 58.2%, 36% with low medium and high level of communication with their husband using were contraception were high than the non user in percentage, which were 41.8% at high 47.6 at medium and 63.0% at low level of communication. It can be said that level of communication links with contraceptive use higher the level of communication high would be the contraceptive use lower will be the communication lower will be the contraptive use. Chi-square value is 18.60 and Gamma -0.1833 indicates that they strong statistical relationship communication and contraceptive use.

Spousal communication on the use of contraception has important effect on use of contraception for determining family size. The low level of spousal communication on family planning issues was found in study areas. The behavior pattern is discouraged since early socialization of children in family which is considered as abnormal behavior.

Spouses are mostly reluctant to discuss the reproductive health matters with each other.

Like husband-wife communication on domestic affairs, spousal communication on family planning issues are of most important for encouraging the use of birth control methods and formulation of values, to change large family norm to small family . When such matters are focused regarding family planning issues, it gives more positive results. It also increases spouse point of divergent views which increases awareness and knowledge about contraceptive use practices and their resulting benefits for the motivation of women to adopt birth control measures. Women are always conscious about both economic as well as demographic advantages of family planning. It has been observed that women in traditional societies are not empowered to take decisions. As a result couple hesitates to adopt birth control measures due to male domination. The spousal communication on family issues narrow downs the difference and helps to reach -an agreement on family and contraceptive use methods. The participation in decision-making is possible through spousal communication on birth control methods that

promotes and encourages the self confidence in woman and improves their roles and status. On the other hand lack of communication force her to practice reproduction under the guidance of her husband.

The open family has democratic environment which provides the opportunities for woman to express her feelings and desires. The couple discusses household matters including the use of birth control methods and number of children with better standard of life. In undemocratic settings, women perform dictated fertility especially in a joint family system.

Spousal discussion on family planning issues promotes the traditions of small family. It helps to add quality children in the family that in turn contribute to reduce poverty and other socioeconomic problems from the society. Different studies revealed that communication on family matters is associated with use of contraception. The communication is associated with use of contraception. It may because of communication among spouse results in shorter periods for child bearing.

Higher level of inter-spousal communication at each stage of childbearing in relation to help around the household affairs and frequent discussion on family planning issues were positively associated with contraceptive use and lower fertility (Beckman 1983). Besides, liberal home environment, understanding of partner's attitude, and communication on other family planning issues resulted in the quality over the quantity of children as well as economic well being of the family (Zafar, 1993).

The table indicates the association of communication among spouse with the use of contraception. The table indicates that high communication, i.e. 71.0%, has high use of contraception; whereas low communication leads towards low use of contraception, and the percentage is 52.2% with low communication have the smaller families .On the other hand the respondents who had more communication had the smaller family, than the respondents who had higher communication had smaller families. It can be said that the communication of spouse is associated with use/not use of contraception. The significance of association is examined through the Chi-square and Gamma tests. The Chi-square value is (18.60) Gamma (-0.1833), both are significant at 1'percent level indicating that participation of women in decision making process has effect on use of contraception.

The hypothesis proved that there is strong association between communication on family matters and the use/not use of contraception. The relationship between contraceptive uses and communication was directly related; that meant that those husbands who were reluctant to communicate on family matters were not using contraception.

6.3.17 Religiosity and use of contraceptives:

Hypothesis No.35 There is inverse relationship between religiosity and the use of Contraception.

35a) **Table: 6.35 Bi-variate relationship of contraceptive use with religiosity.**

Religiosity		Use of Contraception		Row total
		Yes	No	
High	Number	31	88	119
	Row (%)	26.1	73.9	16.5
Medium	Number	163	106	269
	Row (%)	60.6	39.4	37.4
Low	Number	244	88	332
	Row (%)	73.5	26.5	46.1
Column total		438	282	720
Total (%)		60.8	39.2	100.0

Chi-square = 82.77** Gamma = -0.5037

Religiosity and contraceptive use

Religiosity and an impotent component of culture with significant role it determining the family preference and contraceptive use it has been generally advocated that people with high level of religiosity and large family and low contraceptive use. As compare to low level of religiosity and high level of contraceptive use. Table 6.35 indicates that 26.1% respondents with high level of religiosity were using contraception were for fewer than the respondents who had same level of religiosity and there percentages 73.9% table also indicates that 73.5 who had low level of religiosity were using contraception were for greater than the respondents who were not using contraction and their percentages 25.6%

It can be said there can be association between religiosity and contraceptive use. Higher the religiosity smaller will be contraceptive use and lower will be religiosity higher will be contraceptive use.

Religiosity is pattern of behavior practiced as a belief related to relationship between people and what they believe to be the ultimate reality. Belief is an important pattern of behavior practiced and related to destiny and fate. Such behavior pattern is mostly the characteristics of religious and traditional societies with low modern and latest scientific education, low income and higher level of orthodoxy and ethnocentrism. In such societies a large number have belief on conflict rather than competition, and people have competition leading to conflict for scarce resources with limited opportunities. Most of the developing world has been facing the tragedy of commons and the dilemma of alienation and negation of national sense of belongingness has been increasing. Therefore, the values based on equity and distributive justice has ever been considered. The system of meritocracy has never been followed. Resultantly, favoritism and nepotism has taken its place leading the system towards decline and decay in developing countries. Moreover, there is a lack of rationality leading the people to superstitious behavior rather than balance and open system. Such superstitious belief is irrational and irreligious based upon orthodox religion, effecting adversely in all sorts of development including rational family size development. Married couples are mostly reluctant to adopt precautionary measures to have balance family. They keep on producing children results in a large family, because of irrational thinking without the knowledge and strong belief in hard work, which is worship. The study is related to explore the true level of belief in fate and destiny found in the respondents in the study areas and its influence on the use of contraception.

Orthodox religious belief takes the form of superstitious behavior and leads to irrationality, which keeps people away from the hard work, truthful thinking and justice oriented behavior. Such ideological system in community effects adversely on rational behavior including the use of contraception as remedy to establish the norms of a balance family. Such belief of family formation adversely influences number of children born in their family. Such couples satisfy their sexual desires without adopting any precautionary measures against the risk of unintended pregnancy. It adds many children in family and

ultimately leads to multiple socioeconomic and demographic problems for the family. Such parents believe that whatever they receive is from the Divine Power and human actions have no value. The study consists of such type of index variable which represent belief in religion destiny was also used to determine its influence on the number of children ever born to the respondents. The results show that lower belief in destiny promoted small family while higher belief resulted in large family size among to respondents in the study areas.

The study conducted by U N (2002- 03) suggested that high fertility of highly religious women whether they are Christian or Muslims is due to belief in fate and destiny regarding fertility regulation.

The relationship of contraceptive use with religiosity of spouse is an important variable of the study. Different studies supported that relationship of contraceptive use with religiosity is inversely linked. The high religiosity is associated with smaller use of contraception. It may because of religiosity results in shorter periods for child bearing, due to low use of contraception. The table indicates the association of religiosity of spouse with use of contraception. That who has been using contraception at very low level is 26.1%. On the other hand the respondents who had highly religious behavior with 73.5% are not using because they are highly religious. It can be said that the religiosity is associated with use of contraception. The significance of association is examined through the Chi-square and Gamma tests. The Chi-square value is (82.77) and the Gamma value is (-0.5037), both are significant at 1 percent level indicating that religiosity has depressing effect on use/not use of contraception.

So the hypothesis proves that there is inverse relationship between religiosity and the use or not use of contraception.

The bivariate relationship with use of contraception with religiosity is significant given, in chi-square and with negative Gamma values. It means that, with the passage of time cultural value are changing because of evolutionary change process in social system. The orthodox concept of religion has changed to modern religion.

6.3.18: Physical cost and use of contraception.

Hypoth:36 there is inverse relationship between contraceptive uses with physical cost.

36(a) More would be the physical cost of contraception low would be the use of it.

36 (b) Low would be the physical cost of contraceptives high would be its use.

Table: 6.36 Bi-variate relationship of contraceptive use with physical cost.

Physical cost		Use of Contraception		Row total
		Yes	No	
High	Number	38	79	117
	Row (%)	32.5	69.5	16.3
Medium	Number	117	75	192
	Row (%)	60.9	39.1	26.7
Low	Number	383	128	411
	Row (%)	68.9	31.1	57.1
Column total		438	282	720
Total (%)		60.8	39.2	100.0

Chi-square = 50.58** -Gamma = -0.3991

Physical cost and the use of contraception

Physical cost is important component in determining contraceptive behaviour. The effect of physical cost on contraceptive behaviour is examined that indicate there is a relation ship between physical cost and use of contraception. As the physical cost increases the contraceptive behaviour deceases. As the physical cost move form higher medium to low the contraceptive use increase from 32.5%, 60.9% and 68.9%. table indicates that percentage of non users decreases as the cost decreases from high medium and low and the non using respondents also decreases from 69.9% to 39.1% and 32.1% respectively. Chi. Square value which is 50.58 and Gamma values -0.3991 clarly indicates the strong negative relationship between physical cost and the contraceptive use.

The cost benefit analysis shows that the use of a commodity effects upon its cost ,low would be the cost high would be the use of a product, which means that the commodity is cost beneficial. The cost benefit analysis also include services, which influences the cost and affordability by the users of commodity which may include all types of costs, whether tangibles or intangibles. The monetary cost is tangible cost that indicates monetary value of the product and services values are intangibles represents cost represents the intangible costs which is social barriers that may hinders the users

access and use. Whereas, the physical cost indicates physical availability of the product, service and distance of the sale point. The higher cost whether tangible or intangible reduces the use while economic cost enhances the elements of affordability. Similarly increase in affordability motivates for higher use and lower affordability may leads to limit the choices and sustained use. The present study focused on the ever use of family planning methods and factors affecting in use. Here the main focus is on different type of cost of family planning methods that respondents may have to bear before their use. Therefore it is necessary to improve physical and normative by changing the values of tangibles with to cost quality, and intangibles norms and value through planning process in Pakistan.

Different studies supported that Physical cost is linked with use of contraception The Physical cost of contraception is associated with use/not use of contraception. The normative and physical and financial costs of family planning products and services influenced the users' behaviors and affect their use, (Hermalin, 1983and PCS, 1985).

It may because of high physical cost results in shorter use, i.e. the 32.5 percent of contraception. The table above indicates the association of physical cost of contraception of spouse is related use of contraception. The table indicates that 27.2%, who got married at before attaining the age of 20 are far fewer than the respondents who got married after 27 years of age i.e. (76.8%) and had the smaller families .On the other hand the respondents who had been paying high physical cost are using the low percentage of contraception at low level i.e.68.9%. It can be said that the high physical cost is associated with the use/not use of contraception. The significance; of association is examined through the Chi-square and Gamma tests. The Chi-square value is (50.58) and the Gamma value is (-0.3991) both are significant at 1 percent level indicating that physical cost of contraception has depressing effect on use/not using of contraception. So the hypothesis proved that there is inverse relationship between contraceptive use with physical cost.

6.3.19; normative cost and use of contraception:

Hypothesis No.37 There is inverse relationship normative cost and use of contraception.

37(a) more would be normative cost little would be the use contraceptives

37 (b) Low would be the normative cost high would be the use of contraception.

Table: 6.37 Bivariate relationship of contraceptive use with normative cost.

Normative cost		Use of Contraception		Row total
		Yes	No	
High	Number	34	41	75
	Row (%)	45.3	54.7	10.4
Medium	Number	279	204	483
	Row (%)	57.8	42.2	67.1
Low	Number	125	37	162
	Row (%)	77.2	22.8	22.5
Column total		438	282	720
Total (%)		60.8	39.2	100.0

Chi-square = 27.60** Gamma = -0.3887

Normative cost and user contraception is also a prime factor in influencing the contraceptive behaviour higher the normative cost lower the contraceptive use: lower the cost lower the contract use (Zafar 1997). Table indicates that 45.3% of the despondence who had high normative cost and using contraction was for fewer than the respondents who had the same level of normative cost and not using contraception the percentages 54.7%. Table indicates that 77.2% of the respondents who had lower noratmive cost of contraception were using for greater than the respondents who had the same level of normative cost and not using contraception there percentages 22.8. Table reflects that as the normative cost decline from higher medium and lower the percentage of the user of contraceptive increases from 45.3%, 57.8% to 77.2% it also a merges form the table that percentage of the these categories for non users decrease 54.7, 42.2 and 22.8% it can be said that there is association between normative cost and contraceptive behavior. Chi. Square na the gamma value are 27.60, -0.3887 clearly identifies as significant relationship between normative cost and contraceptive behavior.

Culture tells us the ways in which things should be done, it provides standards of proper conduct and expectations and compulsions,(Hunt,2003)The community norms are important because these norms develop balance personality. Norms are practiced by norm full society, if norms are not followed by the community, then system leads towards anomie. In this study the normative cost of contraception means that how to practice the use of family planning methods in a such way that first that through planning norms and values may be formulated then society could accept in a norm ful way because society never recommends an alien values, and they appose it. If any person in the community adopts and practice such values then the community could create hatred against such actions, such norms within traditional society create a sense of alienation and anomie. The study disclosed that the trend has been changing with the passage of time due to education, mass media and better communication among the spouse on such issues, which have dominant effect on women health. But few respondents were not satisfied with the policy of mass media

These behavioral changes are due to changing norms leading towards the change of attitude because of change in social and cultural structure. Many people in the traditional society want boy because of owner of property and they like to mutate their lands to male children because they are true owners of their father property. Such a society where rule of private property is practicable in such a society people wants male children for their safety of property and avoid female baby.

The intangible cost of contraception influences the use by the potential users, because that may include, social or physical costs or all. The social cost represents the social barriers that may hinder the users' access and use, while physical cost represents physical availability of the product or service and distance of the sale point. The higher physical cost reduces the benefits and use while normative cost minimizes directly effects on normative system effecting individual personality and status in the society. Similarly increase in normfulness motivates for higher use and anomie in such situation may leads to decrease and decelerates the choices and sustainable use. The present study focused on the use of family planning methods and factors affecting in use. Here the main focus is on different type of cost of family planning methods that respondents may have to bear before their use. Although, government and Non Governmental

Organizations are working hard to create normative system for the use of contraception for family planning services at different levels to effect normative cost but still a lot could be done for the attainment of objectives at national level.

Normative cost is an indicator for of the contraception. Different studies supported that the normative cost is linked with use of contraception. The normative cost is associated with use of contraception. It may because normative cost of resulted in shorter periods for child bearing as a very important norm. The table indicates the association of normative cost with use/not use of contraception. The table indicates that high cost has little use and that is 54.3%, who were using and paid high normative cost got low use of contraception and those who had low normative cost and that is 77.2 % had the smaller families* .On the other hand the respondents who had been paying high cost were using at low level. The significance of association is examined through the Chi-square and Gamma tests. The Chi-square value is (27.60) and the Gamma value is (-0.3887) both are significant at 1 percent level indicating that normative cost has depressing effect on use/not use of contraception. So the hypothesis proved that there is inverse relationship between normative cost and use of contraception.

6.3.20 Attitude of the health providers and use of contraception:

Hypothesis No.38 There is strong association between attitude of health providers and use/not use of contraception.

Table: 6.38: Relationship of Contraceptive use with attitude of the health providers.

Attitude of the health providers		Use of Contraception		Row total
		Yes	No	
Very cooperative	Number	285	74	359
	Row (%)	79.4	20.6	49.9
Just normal	Number	133	118	251
	Row (%)	53.0	47.0	34.9
Non cooperative	Number	20	90	110
	Row (%)	18.2	81.8	15.3
Column total		438	282	720
Total (%)		60.8	39.2	100.0

Chi-square -142.33** Gamma =-0.6778

Attitude of health provider and use of contraception

Attitude of health in providing to health services to the clients who visit clinic and hospitals does play role in promoting the contractive behaviour the cooperative attitude of health provide link with high contractive use and non cooperative attitude of health provider links with low level of contraceptive use. When provides deals client properly positively carefully and client act upon their advice and there services and loving dealing. In the study association of health provider and health contraceptive use is examined. Table indicates that the percentage of user decrease from 79.4%, 53.0% and 18.2 when provider attitude is studies from vary cooperative just normal. The percentage non user 20.6%, 47.0% and 81.1% when provider attitude is more cooperative very cooperative just normal and non cooperative. The Chi-square value is 14.23% and the gamma value is 0.0778 clearly reflects the positive and strong relationship between health provider contrep5tiv behaviour it is concluded that the positive attitude of the health provider result in high contraceptive use and the negative attitude of health provider lower the use of contraception

All sick women in the time of their pregnancy are in need of health care. Nevertheless, at the time reproductive health complications or any other health problems, they are in desperate need to visit clinic or health centers for the treatment of sickness. During their visit to clinic or health centers they like to visit a health professional that they may be treated properly. In this regard they face a number of problems including transport and financial problems while visiting the health professional. She may face many difficulties and constraints; if her husband is serving elsewhere away from home or abroad; who else will accompany her in this critical situation. It is quite possible that other members in family of in-laws disagree for her visit to clinic. Moreover, she may be facing other domestic problems like care of her children and house management other than health problems. Similarly, such sick women also face logistic and transport problem to reach clinic etc. Despite, all above stated problems, many more obstacles are found and faced by the suffering women. She has to manage to reach clinic for health advice. She thinks health personnel as savior of her life, and expects sympathetic attitude, proper health care and better treatment .At this critical time she is at the mercy of health providers and expects better treatment. If she is treated with whole heartedly,

skillfully and sympathetically, then she is tended to treat herself in future from such professional who have better know-how and sympathetic attitude towards such patients. Such treatment received by the health providers influences the sick woman to visit health clinics in future .A good beginning of health care with sympathetic attitude may lead to promote reproductive health problems at prenatal, and postpartum care stage that may leads towards normal reproductive health community.. It will pave the way towards healthy system of health in community in all respects including the socioeconomic misappropriation.

However, any inappropriate an unattended casual treatment and discouraging behavior by the health personnel may lead to low scale health visits in future; and that would be damaging the sound impression of the healthcare system. First impression of the health community would be the last impression on the sick community of women that could also influence the attitude of other women in their neighboring community and group or to whom she will discuss the story and the health community impression could leads towards distortion. In brief a positive or encouraging behavior of the health providers will increase the use of health services and better impression of health personnel. The higher utilization of such services may disclose new realities to the women visiting health clinic. It may increase her knowledge about family planning technology, awareness about adverse effects of frequent pregnancies, abortions and births. Similarly, the frequent check ups may increase her knowledge about the socioeconomic and demographic benefits of safe mother hood practices.

A number of studies have been conducted and their results disclosed that sympathetic and favorable attitude of paramedics personnel for health seeking women lead to increase the use of health and family planning services. If the services are of low quality service and lack of access coupled with unsympathetic attitude of health providers discourage the visiting women. She may avoid or limit the use of such services. It adversely affects women awareness, access and utilization of health and family planning services (Mgndi et al, 2003). On the other hand positive attitude of health use, broaden women vision and their openness to adopt family planning or social obligation towards the needy women limit the use of health services.

The study also reported that attitude of health providers has dominant effect on the use of birth control methods. Positive attitude of health personnel affected positively on the use of contraceptives while negative attitude resulted in the increase of never use.

The guiding attitude of the health providers is an important variable for the use of contraception. Different studies supported that attitude of health providers is linked with the use of contraception. The attitude of health is related with use of contraception. It may be because of positive guidance from health provider's results in shorter periods for child bearing. The table indicates the association of health provider's attitude with the use of contraception is important. The table indicates that 79.4%, who are very cooperative has provided proper guidance regarding their health, those who are far fewer than the respondents who littler help from doctors; they showed non cooperation were 18.2 % affected on the health of respondents ineffectively. On the other hand the respondents who had not provided proper help had the larger family (more than four children) are more numerous (33.0%) than the respondents who had provided help had more use of contraception. It can be said that the health provider's attitude is associated with use/not use of contraception. The significance of association is examined through the Chi-square and Gamma tests. The Chi-square value is (142.33) and the Gamma value is (-0.6778) both are significant at 1 percent level indicating that health providers attitude has depressing effect on use/not use of contraception.

So the hypothesis the negative attitude of health providers would lead toward low use of contraception. Mngadi. P.T et al (2003) discussed the negative effects of early pregnancy and unplanned birth, that has for reaching effects on mother and child .The all over aim of the study was to generate data on the maternity care and social support provided by health professionals. The doctors paid special attention to adolescent sexual and reproductive health needs; the contraceptive counseling in order to prevent pregnancy at young age and to improve their sexual and reproductive health statuses.

Senderowitz, (1997) discussed the need of preventive care that is necessary for preventing, diagnosing, and treating STIs, which can be combined with maternal care, including prenatal, postnatal, and post partum care, to improve outcomes for both types of services. To meet the diverse needs of women effectively, programs need to use a variety of interventions. These interventions include few children and low level of fertility.

6.4 Correlation Analysis

In the previous section bi-variate analysis was carried out with chi-square and gamma statistics to know whether the association occurred by chance or by reality. To know the rationale of real relationship, the Pearson correlation is carried out to know the degree of relationship as discussed in chapter number three.

In the extent of a bi-variate relationship, the problem arises whether a relationship was real or has arisen by chance. The validity of a relationship was confirmed through the chi-square test. This statistical test, which is widely used to know the probability at certain level of significance, which is the observed relationship between variables, may have arisen by chance.

The correlation analysis was used for further examination of the degree of association or strength of association between variables. This was done to further strengthen the results; this is called the triangulation, or combination of different methods/techniques for the data analysis of same phenomenon. Denzin (1978b) has recommended the triangulation techniques.

The value of coefficient of correlation shows the degree of interrelation among predictor and outcome variables. The result of correlation coefficient helped to know and confirm the relationship between dependent and independent variables, that has also shown the level of association of demographic, cultural and socioeconomic variables. It examines the degree of relationship among variables. All values of relationship is given in the table. Co-efficient variation is to summarize and describe the data and inferential statistics (Bivariate analysis, Chi-square, Gamma test, correlation analysis was used to study the relationship of independent and dependent variables.

Table: 6.3 Pearson's (pair wise) correlation between predictors and outcome variables.

S NO	Predictor variables	Family size/ever born children	Contraceptive use / not use
1	Respondent age at marriage	+0.147***	-0.154**
2	Husband age at marriage	+0.125**	-0.065**
3	Respondent Education	0.1501***	428**
4	Husband education	-0.0549*	+0.0085**
5	Family income	-0.1377***	+0.0751**
6	Family setup	0.0624**	0.1846***
7	Sex preference	-0.4402***	-0.5326***
8	Domestic chore	-0.0589*	+0.0937***
9	Household activity	-0.3833***	+0.4888***
10	Woman participation	-0.0884***	+0.2445***
11	Communication	-0.1101***	+0.1948***
12	Religiosity	+0.3234***	-0.4007***
13	Physical cost	+0.2501***	-0.4786***
14	Normative cost	+0.1932***	-0.1274***
15	Attitude of health provider	-0.4430***	+0.5352***

* The Coefficient is significant at 10 percent probability level (2 tailed).

** The Coefficient is significant at 5 percent probability level (2 tailed).

*** The coefficient is significant at 1 percent probability level (2 tailed).

This table shows 6.3 that the correlation of all predictor and response variables like family size was significant relation respondent age at marriage, Husband age at marriage. Respondent Education, Husband education, Family income, Family setup, Sex preference, Domestic chore, Household activity, Woman participation, Communication, Religiosity, Physical cost, Normative cost, Attitude of health provider with correlation coefficients -0.147,-0.125,0.1501,-0.0549, -0.1377, 0.0624 -0.4402, -0.0589,-0.3833,-0.0884,-0.1101,-0.3234, -0.2501, -0.1932. All these socio-economic, demographic and cultural variables are significant at one percent level. The results of correlation analysis are similar as emerged in bi-variate analysis through the application

of chi-square and Gamma test. The triangulation analytical approach and differential statistical techniques to explore the same social phenomena (correlates of family size and contraceptive use) establishes the importance of explanatory or predictive variables in explaining the response variable

6.5 Multi-variate analysis for examining the relative importance of predictor variables:

Multi-variate analysis refers to the simultaneous examination of more than two variables. In social sciences, the researcher is interested with the extent and direction of the association between two variables. However the existence of relationship between two variables alone does not permit an inference of causal relationship and connection between them.

There are many methods available to describe the relationship between predictor and response variable and more than one independent (explanatory) variables. Before using any technique to investigate the individual and joint importance of background independent variables, it is necessary to examine whether the method is convenient for the data. In other words whether data meet all the assumptions required for the application of technique.

6.6 Linear regression model:

The multivariate analysis involves multiple linear regressions for exploring the relationship of dependent variable family size, and use or not use of contraception. Multiple methods are available to study the relationship when two or more than two variables are involved. The most frequently used method to investigate the significance of each of the factors in the study is multiple linear regressions. In other words approach is applied to find the alternative explanations of a relationship that is not possible in correlational or bi- variate analysis. The alternative explanation of a relationship was used through the introduction of dependent variable in a group.

The regression approach is used as a means of the relative importance of independent variables to the dependent variables. The regression equation is generally expressed.

$$y = a + b_1 x_1 + b_2 x_2 + b_3 x_3 + b_n x_n + e$$

Where “x’s” are the independent variables, “a’ s” are the regression coefficients (the amount of change in the dependent variable, and also for a unit change in the independent variables), and “e” is an error term that indicated the proportion of unexplained variance in the dependent variables.

Multiple linear (Stepwise) regressions require certain assumptions to be met for its application. The assumptions are that each group must be from a multivariate normal population and the population variance-covariance matrix for all groups must be equal. There are several ways to verify these assumptions. The scatter plot of residuals (difference between the observed value and the value predicted by the regression model) against the predicted values is easy approach to test the assumption of linearity and homogeneity of variances. If the data meet the assumptions of linearity and homogeneity of the variances, then there should be no relationship among socio-economic and attitudinal variables indicating that the assumption of linearity and homogeneity of the variances seemed to be satisfied. Moreover, a histogram was also constructed to examine whether the groups came from a multivariate normal population. The distribution of residuals presented in the form of histogram confirmed that the data were from multivariate normal population. It is pertinent to mention here that slight deviation from the assumption does not affect the results because it is unrealistic to expect the observed residuals to be exactly normal. Some deviation was expected because of sampling variation. To identify the relative importance for each of the independent variable in term of explains variation in the response variable was discussed in the following section. Multiple linear regressions were used and two measures the (Standardized regression coefficient (betas) and co-efficient determination (R^2) were used to establish the importance of each of the independent variable in determining response variable. The regression co-efficient estimates the impact of the independent variable and need to develop the amount of change in terms of dependent variable for unit change in the independent variable. The higher the value of regression co-efficient the higher the impact independent variable has on the dependent variable. The co-efficient of determination R^2 measures how well the independent variable explains the dependent variable.

Regression coefficient and standard errors and t-values showing effect of independent variable in determining dependent variable (family size)

Table: 6.40 Stepwise regression analysis results for family size of respondents with independent variables.

S no	Independent Variables	Regression Coefficients-Betas with Standard Errors	t-Values
1	Age at marriage X_1	-0.312 ± 0.0205	7.012***
2	Respondent's education X_2	-0.2763 ± 0.0458	6.027***
3	Husband's education X_3	-0.162 ± 0.0321	2.221***
4	Income of family X_4	-0.0757 ± 0.0209	3.622***
5	Spousal communication X_5	-0.0950 ± 0.0221	4.303***
6	Woman participation in decision making process X_6	-0.1157 ± 0.0303	3.817***
7	Normative cost X_7	0.0804 ± 0.0336	2.391**
8	Religiosity X_8	-0.1335 ± 0.0272	4.917***
9	Household activities (chores) X_9	-0.2596 ± 0.0282	9.190***
10	Family setup X_{10}	0.1418 ± 0.0423	3.349***
11	Physical cost of contraception X_{11}	-0.1934 ± 0.0273	7.085***
12	Attitude of health providers X_{12}	0.3551 ± 0.0287	12.38***
13	Sex preference X_{13}	-0.3026 ± 0.0316	9.574***
	Coefficient of Determination (R²)	0.7856	

Table 6.40 presents the results of multiple linear regressions. As mentioned earlier, the regression analysis is carried out to identify the relative significance of predictor variable in predicting response variable Regression coefficient (beta) value is used to know the relative importance of independent variable.

Table also shows that socio economic characteristics in terms of age at marriage of respondents, education of respondents respondent husband education and family income with regression coefficient (R₂) -0.312, 0.2763, -0.162 and -0.0757 all are significant at 1% level indicating the importance of socio economic characteristics in determining family size.

The gender roles relationship in terms spousal communication, the women participation in decision making process and participation of husband in household activities are contributing factors with regression coefficients which are +0.095, -0.117, -0.2956. All are significant at 1% level in determining the family size. The table 6.40 also identified the significant intangible factor such as normative cost, religiosity physical cost, attitude of health provider and sex preference in influencing the family formation. Sex preference with regression coefficient 0.036, regression coefficient of physical cost of contraception with beta(b) value -0.9134 normative cost with beta (b) value 0.0804 and attitude of health provider (b) value is 0.03551. All these variable have strong effect at ($P < 1$) is have strong effect on contraceptive use. It also emerged from the table that the most important predictive variable was attitude of health provider, age at marriage, respondent education, household activities and sex preference in determining the family size because these variables have the highest value of regression coefficients.

The value of coefficient of determination is R^2 0.7856 reflecting the independent variable in regression model are responsible for explaining 79% variation in explaining family size. It has been argued if the value of R^2 is more than 40% that regression is considered best fit model. As the results of regression shows that the variable in regression model are the most relevant appropriate variable in predicting the family size for the province of NWFP.

Based upon the regression results the following regression model is developed for determining the family size.

$$\text{Family size} = \alpha + 0.0312 X_1, -0.2763 X_2, -0.162 X_3, 0.0757 X_4 -0.950 X_5 + 0.0804 X_6 + 0.01335 X_7 -0.1335 X_8 -0.2596 X_9 + 0.1418 X_{10} -0.1934 X_{11} + 0.3551 X_{12} -0.3026 X_{13}$$

* The Coefficient is significant at 10 percent probability level.

** The coefficient is significant at 5 percent probability level.

*** The coefficient is significant at 1 percent probability level.

6.9 Logistic Regression for explaining contraceptive behavior:

The logistic regression is applied when variables are binary in character, the objection arises that why ordinary regression model is not used. The basic cause to avoid its use is that, the binary variables has different nature, on the grounds given under, therefore logistic model is applied on it.

1. The error term occurs when variance of the dependent variable is different with different values of the independent variables.
2. The error term is not normally distributed because y takes on two values violating another
3. The predicted probabilities can be greater than 1 or less than 0, which can pose problem, if predicted values are used in subsequent analysis.

The logit model is used to study the probability of occurrence of an event in population studies. Different studies have been conducted through regression model.

In logistic regression, one can directly estimate the probability of an event occurring. For the case of a single independent variable, the logistic regression model can be written as:

$$\text{Prob (event)} = \frac{e^{B_0 + B_1 X}}{1 + e^{B_0 + B_1 X}}$$

Where B_0 and B_1 are coefficients estimated from the data, X is the independent variable, and e is the base of the natural logarithms, approximately 2.718.

For more than one independent variable the model can be written as

$$\text{Prob (event)} = \frac{e^Z}{1 + e^Z}$$

Or equivalently,

$$\text{Prob (event)} = \frac{1}{1 + e^{-Z}}$$

Where Z is the linear combination.

$$Z = B_0 + B_1 X_1 + B_2 X_2 + \dots + B_p X_p$$

The probability of the event not occurring is estimated as

$$\text{Prob (no event)} = 1 - \text{Prob (event)}$$

If the above figure is plotted; the logistic regression curve, when the values of Z are between -3 and +3. As one can see, the curve is S-shaped. It closely resembles the curve obtained when the cumulative probability of the normal distribution is plotted. The

relationship between the independent variable and the probability is nonlinear. The probability estimates will always be between 0 and 1, regardless of the value of Z.

The logistic regression is applied collectively on both the district's urban settlement.

The results show that respondent with higher education has higher use of contraception, and respondent with lower income has more religiosity, and belief on fate and destiny with lower use of contraception. That means family size would be large with the sex preference and belief in destiny.

It is important to note that with the methodology of Logistic Regression the prediction of association could be calculated. It was calculated with the following method; now the question arises, whether in future the trend toward use of contraception would increase or not. Predicting the behavioral trends in reproductive health of women with the application of:

Prediction whether an event will or will not occur as well as identifying variable useful in making the prediction is important in most academic discipline as well as the real world.

With the application of the logistic regression techniques, let us consider data analysis gathered in two districts of NWFP, regarding impact of socio-economic, demographic and cultural factors on reproductive health. The dependent variable were "family size, and use of contraception". The independent variables were family size preferences, (large or small), education of respondent and education of spouse, both (literate), (illiterate);the normative cost low, or high; income of respondent low, or high, Communication on family matters is more or less; religious or not religious; spousal relationship, participation in family matters; physical and normative cost attitude of health providers, satisfaction level; physical cost high or low; sex preference was high or low; attitude of health providers was satisfactory or not satisfactory. The positive sign was denoted by one (1), and not by zero, given in table 6.4.5, that provides the maximum estimates of logistic regression parameters.

6.9.1 Logistic regression model for all areas:

The family system of respondents and her husband education ,income, communication, consultation in family affairs, physical cost of contraception and sex preference are the variable with minimum beta values i.e .with values less than .5

percent showed that these variables are positively related with binary variable known as use/not use of contraception. Age at marriage, Family system (Nuclear, Joint), Respondent's and her spouse education, Normative cost, and Cost of contraception, Income, Communication, Religiosity, Set up of family (Pat, Mat), Health providing facilities, Physical cost of contraception, Sex preference, Attitude of health provider and, appeared as significant variables given in table 6.4.5 below. The study of Beta coefficient shows that variables' bearing positive sign indicates their positive influence on response variable. These variables, which have negative value, include income of a spouse -.483, Set up of family (Pat, Mat) value is -.577, and Physical cost of contraception value is-.479, and the attitude of health provider's value are -1.309. Those variables which have negative values; showed negative influence on above described variables. Based on the result of logistic regression, the following model is developed to predict contraceptive use.

$$Z = -7.506 + 0.761 X1 + 0.230 X2 - 0.187 X3 + 0.905 X4 + 0.483 X5 + 0.375 X6 + 0.759 X7 - 0.577 X8 + 0.224 X9 + 0.479 X10 + 1.485 X11 - 1.309 X12$$

Likelihood	Chi-square	df	significance
-2 Log likelihood	597.938	707	.9988
Model Chi-square	366.124	12	.0000
Improvement	366.124	12	.0000
Goodness of Fit	617.303	707	.9934

The level of significance regarding likelihood value was .9988 and goodness of fit, the level significance value was .9934.

S.No	Variables	No	Beta	Std Error.	Wald statistics	D Freedom	Ex(B)
	No of respondent 720						
1	FAMILY SYS (NUC, JOINT)	X1	.761***	.193	15.548	1	2.140
2	RESP'S HUS EDUCATION	X2	.230**	.108	4.511	1	1.258
3	RESPOND T EDUCATION	X3	.287***	.100	3.491	1	.830
4	NORMATIVE COST FCONTRA	X4	.905***	.190	22.673	1	2.471
5	INCOME OF SPOUSE	X5	-.483*	.247	3.803	1	1.620
6	COMMUNICATION	X6	.375***	.130	8.361	1	1.455
7	RELIGIOSITY	X7	.759**	.152	24.795	1	2.135
8	SET UP FAMILY (PAT, MAT)	X8	-.577**	.239	5.824	1	.561
9	HLT P ATT (CONSULTATION)	X9	.224*	.134	2.785	1	1.251
10	PHY COST CONTRACEPTION	X10	-.479***	.154	9.692	1	1.6154
11	SEX PREFERENCE	X11	0.485***	.187	63.121	1	.4.417
12	ATTD OF HELTH PROVIDER	X12	1.309***	.170	59.182	1	.270
13	CONSTANT	---	7.506***	1.166	41.448		001

Significant, * = (P<0.10), ** = P<0.05, *** = P<0.01

Table 6.42 indicates that all independent variables such as family system respondent education, respondent husband education, normative cost, physical cost, spousal communication, religiosity, sex preference and attitude of health provider are important correlates or determinants of contraception.

Given these coefficients, the logistic regression equation for the probability of nodal involvement can be written as:

Classification: Table. 6.43 Use or not use of contraception:

Observed	Yes	No	Percent Correct
Yes users	384/87.7	54/12.3	438 60.83%
Nonusers	87/30.9	195/69.1	282 39.17%
Total	471/100	249/80.4%	720 80.4%

In table 6.43 classification of users and non users identified in logistic regression model indicates that among 438 users 384(87.7%) were correctly identified as users of

contraception, while 54(12.3%) were incorrectly identified as users. They might have the characteristics of nonusers but they were using contraception may because they have already large family size. It can also be interpreted that these users of contraception (12.3%) may have the tendency to discontinue. On the other hand among 282 non users of the contraception 195(69.1%) were correctly classified as non users and 87(30.9) were classified as non users. In other words these 87 (39.9) might have the characteristics of users and may be their early age of child bearing. It can be said that these non users have tendency to use contraception in near future. The overall (80.4%) of the respondents were correctly identified by the regression model.

From the table above, one can conclude, that there are 384 user of contraception. 54 are not users. The modal nodes correctly predicted the nodes. Similarly, 195 users have tendency toward not using it. Whereas 54 are not user; and 60.83% represent another positive node means using contraception. The percentage of both the user and non-user was 39.17%. The trend showed that there is high tendency toward to use of contraception. The logistic regression results have been matching with the results of correlation and regression.

Among the 360 non user, 273 non users were correctly identified as non user while 87 who were the non users and identified as users. It reflects that these 87 non users had the tendency to use contraception in near future.

6.10 Summary:

Thus, the study found the probability that respondents with specified values of independent variables had small family size; those who were practicing contraception. Maximum likelihood estimates of parameters of the logistic regression, whether socio-economic and cultural factors like use/not of contraception was affecting reproductive health in present study conducted in NWFP.

The multivariate analysis identified the importance of attitudinal variables in explaining dependent variables. The attitude variables explained more variations as compared to demographic variables in model while explaining the dependent variables about the family size. The logistic regression model emphasized the significance of cultural variables for the promotion of contraceptive use in society. The socioeconomic variables including age at marriage education and income are more important than

demographic variables contributing towards family size and use or not use of contraception.

Similarly attitudinal variables like communication and attitude of health providers and preference for the boy also appeared important attitudinal variable effecting family size and use of contraception. Then respondent gets married before attaining the age of twenty years while high percentage got married between the age of eighteen years.

Chapter: - 7 Findings, conclusions and Policy Recommendations

Introduction:

The chapter presents main findings, followed by conclusions, policy recommendations and area of further research. The findings have been discussed in detail in chapter 5, 6, in form of univariate; bivariate and multivariate analysis. For convenience of the readers, here the main findings have been presented through three separate categories of variables i.e. socioeconomic or background variables, demographic variables, and cultural variables. The relevance of these findings with the theoretical perspectives has also been discussed briefly. The present study has investigated determinants of family size and use of contraceptive in the socio-economic and cultural frame work. By employing a preplanned questionnaire, 720 married women aged 18-45, with at least one surviving child and presently living with their husbands were interviewed from the two districts of N W F P i.e. Peshawar and Kohat. The influence of socioeconomic variables like; spouse education, occupation, income, and family set up, family preferences, and cultural variables on the dependent variables i.e. use of contraceptive and family size were investigated.. The relationship of cultural variables such as wife and husbands' participation in decision making process communication, spousal relationship in terms of communication on family matters, on family planning issues, and women mobility outside home were investigated. The women's knowledge about the chances of pregnancy, the access to family planning services, distance of health facilities from the residence of the respondents, attitude of health providers and behavior pattern of health providing community. The other cultural aspects that influenced family size and contraceptive use were physical and normative costs of contraceptives. The uni-variate analysis followed the bivariate analysis explored the relationship of socioeconomic, demographic and cultural variables with the response variables. The multivariate analysis employed multiple linear regressions; and logistic regression has been used for dichotomous variables which show binary relation ship of use or not use of contraception.

7.1 Age at marriage of spouse

Age at marriage is an important demographic variable influencing the family size and contraceptive use. The young and universal marriage pattern which is common in developing societies like Pakistan is primarily responsible for large families and low contraceptive use. The uni-variate analysis demonstrates that 53.19% of the respondents got married before attaining the age of 20 years while 37.50% married in between the age of 21 and 26. There are only few respondents (9.30%) who got married at later ages. The finding reflects that in N W F P, the marriage pattern is young and universal. The effect of age at marriage on family size and contraceptive use also emerged in the study. The chi square and gamma values which are 125.106 and -0.2506 of age at marriage with family size clearly demonstrate its significant effect on family size at one percent level. The relationship of age at marriage with contraceptive use established by chi-square, the value of chi square is 35.78, and gamma value is -0.109 at one percent level. The Pearson correlation coefficient also confirms the relationship of age at marriage with family size and contraceptive use. The multivariate linear regression with beta value (-0.312) at one percent level identified a significant effect of age at marriage in influencing the family size. The logistic regression establishes the effect of age at marriage on contraceptive use with regression coefficient i.e. -0.812.

7.1.2 Spouse education

1. The significance of education in influencing social phenomenon is undoubtedly established in every study in the discipline of social sciences. Education is a driving force in shaping human behavior and perception towards family formation. The women education identified as an important intangible or non material force affecting family size and contraceptive use. The study findings indicate that 59.9% of the women were literate while remaining 40.1% were illiterate. The majority of women completed the primary level of education which was 25.83%.

The bi-variate analysis indicates that women education is significantly associated with family size, having chi-square value (19.08) and gamma (0.032) significant at 1% level. The association of age at marriage with education also established with contraceptive use as the test of significance reveals. The cause and effect relationship of

women education with family size and contraceptive use also emerged with regression coefficient values (0.2763 and -0.287) respectively. Both beta values are significant at 1% level. It reflects that there exists a cause and effect relationship between women education and reproductive health. It can be said that education of mother has depressing effect on family size and promotes contraceptive use which lead to better and enhanced women reproductive health

Education enables women and men to think rationally and also enhances the ability for better learning and developing prompt attitude about family formation. The bivariate and multivariate analysis identifies a significant effect of husband education and family size and contraceptive use.

7.1.2 Family income

Economic foundation of a person or a family determines the social status in the society. Income earned from different sources play a vital role in predicting the family formation, attitude of individual and couples in families. The findings indicate that 9.0 % respondents belonged to high income category, which is 22.9% and 25.9% of the respondents were earning in the income range of 20000-40000.

The effect of income with family size and contraceptive use emerged in bivariate analysis. The chi-square (15.16) and gamma values (0.096) with family size and with contraceptive use (93.38 and -0.552) establish a significant association of variables being investigated.

The multivariate analysis also indentifies a significant role of family income in affecting family size and contraceptive use. It can be said that income of respondent is inversely relating with family size and encourages women for contraceptive use

7.1.3 Husband participation in domestic chores:

The importance of gender roles and relationship is basic step in determining family building perceptions and attitude. It has been generally advocated that traditional societies like Pakistan husband has low participation in domestic chores. The husband participation in domestic chores reflects his attitude whether liberal, irrational and rigid towards his wife.

Husband participation in domestic activities also indicates the nature of relationship with his wife. The univariate analysis reflects that in NWFP the Pushtun

culture does not encourage the husband to participate or share with wife in performing house hold activities. The bivariate analysis identifies a significant effect of husbands participation in domestic chores in influencing the family size and contraceptive use with chi-square values for and family size i.e.15.23 and contraceptive use i.e. -112.2 and gamma value for family size is-0.118 and for contraceptive use is -0.642 respectively. The Pearson correlation analysis also verifies the association of husband participation with family size and contraceptive use. Multivariate analysis demonstrates the influence of husband participation on reproductive health behavior with regression coefficient -0.2596 for family size and with contraceptive use value is 0.812. Both are significant at 1% level. It can be said that the husband higher participation in performing domestic activities improves their understanding with their wives which leads to rational decision for family formation.

The other aspects of gender roles such as women participation in decision making process and spousal communication on family matters also identified an important relationship of family size and contraceptive use by descriptive, inferential, and multivariate analysis.

The values of chi-square, gamma Pearson correlation, regression coefficients of women participation in decision making process and spousal communication with family size and contraceptive use predict a significant relationship at 1% level. It can be said that woman's higher participation in decision making process and better communication are the intangible determinants of family formation.

7.2 Religiosity

The culture of any society or community is a driving force in determining or influencing the different aspects of human life including family formation. Religion is a basic and important component of culture. It is viewed that every one on this globe has some what religious affiliation and religion commands the peoples about the family formation, for example in Muslim society people perceive that bearing and rearing of the children is a religious obligation /norm and contraceptive use is against the ethos of Islam. People perceive that interference in child bearing process is not permitted in Islam because God is creator and provider. This feeling and perception of people do affect their

family building process. Univariate analysis demonstrates that majority of women were religious and they observed with great devotion the religious rituals.

The bivariate analysis identifies the importance of religiosity in determining the family size and contraceptive use with chi-square value is(196.72) and gamma values -- 0.5349 respectively. The beta value of linear regression and logistic regression of religiosity with family size and contraceptive use indicates strong relationship at 1% level. It can be said in NWFP the women who are more religious prefer to have large family size and lower contraceptive use than the women who are less religious

7.3 Physical and normative cost:

The cost of contraception, availability of contraception, distance of health outlets from the clients home are the key factors in adoption and discontinuation of contraception. It is viewed in different studies that the availability and accessibility are two prime components in determining the success of family planning programme in developing societies like Pakistan. The descriptive analysis indicates that the respondents pay heavy physical cost of contraception due to less availability and accessibility. The bivariate analysis determines a vital role of physical cost of contraception in family formation. The chi-square and gamma values of physical cost which are (220.05, -0.6299) for family size and (50.58, -0.3991) for contraceptive use established strong association between independent and response variables which are family size and contraceptive use. Both are significant at 1% level established a vital role of predictive variable in explaining response variables. The beta values for stepwise regression (-0.1335) for family size and logistic regression coefficient 0.759 for contraceptive use identified a significant effect of physical cost on family size and contraceptive use. It can be said that higher is physical cost of contraception large is the family size and lower the contraceptive use as compared to lower the physical cost of contraception which resulted in small family norm and higher use of contraception. The normative cost of contraception also identified as significant determinant of family size and contraceptive use. All the statistical techniques including descriptive, bi-variate and multivariate determine a significant effect of this intangible aspect of cost of contraception on family formation (family size and contraception).

7.4 Attitude of health providers:

The role of health providers in success of fertility regulating behavior and family planning programme is undoubtedly vital. The positive and cooperative attitude of health providers play a significant role in the acceptance or rejection of contraception. The descriptive analysis reflects that health provider's attitude was not upto the mark required for attraction of clients from the community. The negative attitude of health providers discourages to utilize the health services and facilities properly. Inferential analysis indicates a strong effect of health provider on family size. The chi-square value is 242.19 and gamma value is 0.683 of family size and for contraceptive use chi-square value is 142.33 and gamma value is 0.6778. All these values established strong association between health providers attitude and family size and contraceptive use at 1% level. The Pearson correlation value is 0.3551 established interdependence of providers' attitude with family size. The coefficient of linear regression (beta) is 0.3551 and logistic regression (beta) is 1.309 of health providers attitude with family size and contraceptive use indicates a strong relationship between variables being investigated and at 1% level of significant. It can be said that the positive rational and cooperative attitude of health providers towards their clients is essentially required for the promotion of small family norm and family planning programme in Pakistan particularly in NWFP.

7.5 Conclusions

The study explored the effect socioeconomic, demographic and cultural determinants of women reproductive health through data collected in real life situation. The study concluded that cultural values and belief system play pivotal role in explaining human reproductive health behavior. It guides human being to behave in a particular direction under the influence of the socio-cultural framework and system of norms. No doubt, the economic prosperity adds comforts in life and provides solution to many familial and non-familial matters. But the effect of such development is sometime off set by the disturbance in moral protective barriers. The declining trend in breastfeeding with the increasing level of modernization is an example in this regard. The findings supported the empirical evidence on record that economic development is not precondition for fertility decline but culture plays more decisive role in explaining women reproductive health and her human fertility behavior. The mode of production, power relationship within family, community and society, issues related to healthcare and gender roles and relations are the important broader dimensions of women reproductive health. Some of the possible conclusions derived from the study findings have been discussed in the forthcoming paragraph.

Female education proved quite effective to promote contraceptive use and reducing family size. It actually motivates women for appropriate health care at the right time and from the right place. The increase in education particularly of women and especially in traditional areas may lead towards women reproductive health through fertility decline and higher contraceptive use. The higher age at marriage and at the commencement of childbearing also produced depressing effect on female marital fertility and enhanced family planning use.

Women income from paid job improved their control on their fertility. Similarly, control of women on monthly household expenditures enhanced their assertive power within family. The extent of women participation in social activities outside home including healthcare adoption indicates their level of mobility. It increased ever use of contraception as well as resulted in lower fertility. The results also indicated the need to *prove* women mobility especially in suburban areas. In a society where family planning program faces strong opposition from religious segments of the society, the provision of

accurate knowledge about the chances of pregnancy during menstrual cycle is vitally important. It was found that lack of such knowledge adversely influenced the family planning use and resulted in the increase of women fertility performance. The provision of such knowledge may act as best natural contraceptive. Higher distance of health facility from the residence of the respondents limits both access and utilization of healthcare services. Adequate pre- and postnatal cares are essentially required to influence fertility and family planning use. Similarly, parent lifestyle aspirations about the number of children education and age at marriage influence female fertility and contraceptive use.

7.6 Policy recommendations

Efficient policy planning: A carefully designed population policy based on empirical evidences with short and medium range priorities is required to achieve population goals. It may aims to empower women control on their fertility and improve women involvement for joint, fertility decision-making. The new determinants of marital fertility explored in the study lie of vital significance for the achievement of population objectives in Pakistan. These include the provision of health and family planning services within the distance of less than two km, motivation for higher utilization of pre- and postnatal cares. Similarly, the; provision of correct knowledge to adult women about the chances of pregnancy during menstrual cycle is of vital importance to reduce the chances of unintended pregnancy. It may act as best natural contraceptive in societies where religious elements strongly oppose the use of man made contraceptives. Based on the conclusion, some specific policy recommendations have been presented in the forthcoming paragraphs.

7.6.1 Increase in literacy ratio

More efforts are required to promote education in the society. In this regard, special focus is needed on female education and particularly in rural areas. The incentives of the form of free books, transportation, and financial support and scholarship may motivate parents to educate their daughters. The food for education program during primary schooling may increase enrollment rate and lower the drop out on account of anal poverty. Similarly, the involvement of people's local representatives in planning the strategies to promote education in their areas may also prove effective in this regard.

7.6.2 Attitudinal change:

The transformation in the attitude of health providers is needed to extend good health care services to the needy women. Special care may be extended to the women visiting for maternity care. These women cannot afford any sort of non-cooperative attitude while they are struggling to give new life. During professional training, especially redesigned programs involving sociologists and psychologists may prove beneficial in targeting attitudinal changes in the health staff. An attitude evaluation system with the help of patients and track record of cases mishandled may also prove effective strategy to spring the healthy changes in health providers' attitude.

The problems of accessibility can be overcome through a mobile health unit comprising multidisciplinary team of health professionals constituted to extend weekly or biweekly service to the people at union council level in urban areas and at village level in rural areas on rotational basis. The involvement of District Governments may assist in finalizing such arrangements. Similarly, a public-private-partnership strategy can improve people doorstep access to health and family planning services.

7.6.3 More knowledge about reproductive health

Knowledge birth control and reproductive health may be promoted to influence on marital fertility emerged in the study. The adoption of at least consultation with health providers during pregnancy may be increased for advice and timely laboratory examinations. This may yield twin benefits of healthy living and population control. The absence of such care may increase family expenditures on health in case of complications and may also raise public expenditures on these services. If such trend prevails in the society, then mass media may be used to create; awareness about the beneficial aspects of prenatal and postnatal visits to health professional at proper time. The involvement of health professionals and women representatives at union council level can play effective role to promote the adoption of effective type of healthcare.

7.6.4 Democratic home environment

The congenial home environment through frequent husband-wife discussion on the family and non-familial matters including family planning issues may be effectively be promoted and contraceptive use could leads towards small family size norms in the society. It may happen if the couples are free from economic worries. The high cost of

living creates tension in family as well as in society. The tension of insecure living is relieved through bedroom atmosphere in traditional societies like Pakistan. There is a need to lower the cost of living although lowering cost of education, shelter and costs involved in utility services. The frequent pregnancies and health problems jeopardize women and family health. There is need to alert women. A full-fledged chapter in the curricula at college and university level about the adverse effects of frequent pregnancies and births may be introduced. The in formations may clear the prevailing misconception among women about the reproductive health.

BIBLIOGRAPHY

- 1996, Reproductive Health Services Delivery in Pakistan, Published by United Nations Population Fund, under project Pak-95/PO2, Printed by CDL, Rawalpindi, Pakistan.
- 1998, Emergency Contraceptive in Nigeria, A Report of an Exploratory Research project by the society for Family Health, Nigeria, Lagos, Project funded by Ford Foundation, Nigeria.
- (1998) Human Development Report, UNDP, 1UN Plaza, New York (USA).
- (1998). Recent Demographic Development in Europe. Belgium.
- (1999) Recent Demographic Development in Europe. Belgium.
- (2000a). Macro-economic Indicators in Employment in Europe. Brussels.
- (2001) Report of the United Nations Workshop on Prospects for Fertility Decline in High Fertility Countries, (New York, United Nations), United Nations publication (ESA/P/WP. 167)
- (2001a) World Population Prospects: The 2000 Revision, Volume I: Comprehensive Table, (New York, United Nations), United Nations publication Sales No. E.01.XIII.8.
- (2002) Multiple Indicator cluster survey GO of NWFP UNCF Pakistan
- (2002) “Views and Policies concerning population growth and fertility among Governments in intermediate fertility countries”, United Nations Expert Group Meeting on Completing the Fertility Transition, (New York, United Nations), United Nations publication (ESA/P/WP.172)
- (2002) World Population Monitoring 2002 Reproductive Rights and Reproductive Health: Selected Aspects, (New York, United Nations), United Nations publication (ESA/P/WP.171).
- (2002a) United Nations Database on Marriage.
- 2002, A District Based Multiple Indicator Cluster Survey, Govt. of N.W.F.P., Planning and Dev. Deptt: in collaboration with Federal Bureau of Statistics and UNCF.

- Abou Zahr, C., and E. Royston. 1991. *Maternal Mortality. A Global Fact book*. Geneva: World Health Organization.
- Adhikari, R. K. (2002). "Early marriage and childbearing: risks and consequences", in, S. Bott and others (eds.), *Adolescent Sexual and Reproductive Health: Evidence and programme implications for South Asia*, (Geneva, World Health Organization).
- Akhter, H.H. (2002). "Menstrual regulation among adolescents in Bangladesh: risks and experiences", in, S.Bott and other (eds.), *Adolescent Sexual and Reproductive Health: Evidence and programme implications for south Asia*, (Geneva, World Health Organization).
- Alacon,I. And G.F.Gonzalez. 1996. "Attitudes towards sexuality, sexual knowledge and behavior in adolescents in the cities of Lima, Cusco, and Lquitos," report. Lima, Peru: Cayetano Heredia Peruvian University.
- Allen, Mary J., and Wendy M. Yen: 1979. *Introduction to Measurement Theory*, Wadsworth, Belmont, California, USA.
- Amnesty International, 1991 *Rape and Sexual Abuse: torture and ill-treatment of women in detention* (London: Amnesty International Secretariat).
- Anonymous. 1998. "Global Estimates of Unsafe Abortion. *Population today* 26: 1 -3.
- Anonymous. 1999. "Notes from a support group for women over 40 trying to have their first child." *Reproductive Health Matters* 7 (13): 89-95.
- Arevalo M, Sinai I, Jennings V.1999; A fixed formula to define the fertile windos of the menstrual cycle as the basis of a simple method of Natural Family Planning. *Contraception* no 60:pp 357-60.
- Ashfaq, et al. (1990) *Fundamentalism, family and sex preferences among women of rural Pakistan*. *Rural development and admin*, 22(!)
- Ashford, Lori, and Carolyn Makinson 1999, *Reproductive Health in Policy and Practice: case studies from Brazil, India, Morocco and Uganda*. Washington, DC: Population Reference Bureau.
- Asian and Pacific Women's Resource Collection Network (1989) *Asian and Pacific Women's Resource and Action Series: health* (Kuala Lumpur: Asian and Pacific Development Centre).

- Babalola, Stella O. 1997. "Sex-related attitudes and behaviors among a high risk youth population in Nigeria: A study of four motor parks in Lagos State," unpublished. Lagos: Stop AIDS.
- Baker, Therese L., and Judith a. Bootcheck: 1985. "The Relationship of Marital Status and Career Preparation to Changing Work Orientations of Young Women: A Longitudinal Study" in A. Kerckhoff (ed.), *Research in Sociology of Education and Socialization*. Vol.5.
- Bamunsinghe J. et al. 1997 Emergency contraceptive pill, baseline study Sri Lanka, The Family Planning Association of Sri Lanka, Colombo.
- Barua, A. and K. Kurz (2001). "Reproductive Health-seeking by married adolescent girls in Maharashtra, India", *Reproductive Health Matters*, 9 (17): 53-62.
- Baruch, G. Biener, L. and Barnett, R. (1987) 'Women and gender in research on work and family stress; *American Psychologist*, Vol.42, no.2, pp. 130-6.
- Baver, Ronal, 2000 "Health Policy and Ethics Forum: The Population Debate." *American Journal of Public Health* 90, no.1938-1847 ed, 12 Dec.
- Berg, C., I. Danel, and G.Mora. "Guidelines for maternal Mortality Epidemiological Surveillance." PAHO/WHO, CDC, and UNFPA, Washington, D.C.
- Binstock MA, Wolde-Tsadick G (1995) Alternative prenatal care. Impact of reduced visit frequency, focused visits and continuity of care. *Journal of reproductive Medicines* 40, 507-512.
- Blanc, A. and A. way (1998). "Sexual behaviour and contraceptive knowledge and use among adolescents in developing countries", *Studies in Family Planning*, 29 (2).
- Bongaarts, J. (1997) Unwanted Childbearing in the Developing World. *Studies in Family Planning*. Vol. 28. No.4: 267-277.
- Bongaarts, J., and R.G. Potter. 1983. *Fertility, Biology, and Behavior: An analysis of the Proximate Determinants*. New York: Academic Press.
- Bos, E.,V. Hon, A. Maeda, G. Chellaraj, and A. Preker. 1998. *Health, Nutrition, and Population indicators: A Statistical Handbook*. Washington, D.C.: World Bank.

- Bott, S., S. Jejeebhoy, I. Shah and C. Puri (eds.) (2002). *Adolescent Sexual and Reproductive Health: Evidence and programme implication for South Asia*, (Geneva, World Health Organization).
- Bouvier, Leon F. and Jane T. Bertrand 1999. *World Population: Challenges for the 21st Century*. Santa Ana, CA: Seven Locks Press.
- Brown, A., S.J. Jejeebhoy, I. Shah and K. M. Yount (2001). "Sexual relations among young people in developing countries: evidence from WHO case studies", *Occasional Papers of the Department of Reproductive Health and Research, World Health Organization*, No.4 (WHO/RHR/01.8).
- Bruce, J. (1987) 'Users' perspectives on contraceptive technology and delivery systems: highlighting some feminist issues' *Technology in Society*, vol. 9, pp. 359-83.
- Bulatao, R.A., and G. Richardson. 1994. "Islamic Republic of Iran: Fertility Family Planning in Iran." World Bank, Washington, D.C.
- Burgess, Robert G. (ed.): 1986. *Key Variables in Social Investigation*, Routledge & Kegan Paul, London.
- Camino, L. 1989. 'Nerves' worry and black women: a community study in the American south' *Health Care for Women International*, vol.10 no 2 and 3, pp. 295.
- Campbell, J. 1992. 'Wife battering: cultural contexts versus western social sciences' in D. Counts, J. Brown and J. Campbell (ed) *Sanctions and Sanctuary: cultural perspectives on the beating of wives* (Boulder, Co: West view Press).
- Caplovitz, David: 1983. *The Stages of Social Research*, Wiley, New York.
- Carmines, E., and R. Zeller: 1979. *Reliability and Validity Assessment*, Sage, Beverly Hills, California, USA.
- Casterline, J.B., Z. Sathar and M. Ul Haq (1999). "Preferences and behaviors: a study of contraceptive intentions in Pakistan", paper presented at the Annual Meeting of the Population Association of America, New York, 25-27 March.

- Celbard, Alene, Carl Haub, and Mary M. Kent. 1999, "World Population Beyond Six Billion." *Population Bulletin* 54, no. 1. Washington, DC: Population Reference Bureau.
- Center for communication programs, Population Information Program. 1996 "Meeting Unmet Need: New Strategies." *Population Reports*, series J, no. 43. Johns Hopkins School of Hygiene and Public Health, Baltimore.
- Center for Communication Programs. 1998 "Men: Key Partners in Reproductive Health: A Report on the First Conference of French-Speaking African Countries on Men's Participation in Reproductive Health." Johns Hopkins University School of Hygiene and Public Health, Baltimore.
- Chalmers, I. 1989. 'Evaluating the effects of care during pregnancy and child birth' in I Chalmers, M. Enkin and M. Keirse (eds) *Effective Care in Pregnancy and Child birth*, Vol.2 (Oxford: Clarendon Press).
- Coren, S.A. 1998. "The Reproductive Health Needs of Refugees: Emerging Consensus Attracts Predictable Controversy." *Guttmacher Report*, 8-10 October.
- Cui, N., Li and E. Gao (2001). "Views of Chinese parents on the provision of contraception services to unmarried youth", *Reproductive Health Matters*, 9(17): 137-145.
- Davis, James A.: 1971. *Elementary Survey Analysis*. Prentice-Hall, Englewood-Cliffs, N.J.
- Dawn, C.S. 1995. *Textbook of Gynaecology*, 12th edition. Kolkata, India: Dawn Books.
- De Silva, W. I. (1998) "Socio-economic change and adolescent issues in the Asian and Pacific region", *Report and Recommendations of the Expert Group Meeting on Adolescents: Implications of Population Trends, Environment, and Development*, Asian Population studies No. 149, (Bangkok, ESCAP).
- Dietrich, G. 1986. 'our bodies, ourselves: organizing women on health issues' *Socialist Health Review* (March), pp. 179-84.
- Downie, N.M., and Heath, R.W. 1974, *Statistical Methods*, 4th ed. New York: Harper & Row,
- East-West Center 2002. *The future of Population in Asia*, (Honolulu, East-West Center).

- Elam-Evans LD, Adams MM, Gargiullo PM, Kiely JL, Marks JS (1996) Trends in the percentage of women who received no pre natal care in the United States, 1980-1994.
- ESCAP (1998). Report and Key Future Actions Required to Achieve the Goals of the ICPD |Program of Action and Bali Declaration, (Bangkok, ESCAP).
- Ettore, E. 1992. Women and Substance Use (London : Macmillan).
- Eugster, A., and A.J.J. M. Vingerhoets. 1999. "Psychological Aspects of In Vitro Fertilization: A Review." *Social Science and Medicine* 48: 575-589.
- European Commission (1998). Equal opportunities in Women and Men in Europe. Brussels: Eurobarometer.
- Evason, E. 1991. 'Women and poverty, in C. Davies and E. McLaughlin (eds) Women, Employment and Social Policy in Northern Ireland: a problem postponed (Belfast: Policy Research Institute).
- Family Care International. 1995. "Commitments to Sexual and Reproductive Health and Rights for All: Framework for Action." New York.
- Family Health International. 1998. "Special Topic: Improving Service Quality." *Network* 19(1).
- Fathalla, M. (2002). "Reproductive rights and reproductive wrongs", paper presented at IPPF Asia-Pacific Seminar on Reproductive Health, Kuala Lumpur, 25-26 July.
- Fisher, S. 1986. *In the Patient's Best Interest: women and the politics of medical decisions* (New Brunswick, NJ: Rutgers University Press).
- Forgy, L., D.M. Measham, and A.G. Tinker. 1992. "Incorporating Cost and Cost-Effectiveness Analysis into the Development of Safe Mother-hood Programs." World Bank, Washington, D.C.
- Ganatra, B. and Hirve (2002). "Induced abortions among adolescent women in rural Maharashtra", *Reproductive Health Matter*, forthcoming.
- Germain, A. and Ordway, J. 1989. *Population Control and Women's Health balancing the scales* (New York: International Women's Health Coalition).
- Glasier A. et al. 1996 Case studies in emergency contraception form six countries. *International Family Planning Perspectives* Vol. 22.2:57-61.

- Graham, H. 1993 *Harship and Health in Women's Lives* (Brighton: Harvester Wheatsheaf).
- Grosskurth, H., F. Mosha, J. Todd, E. Mwijarubi, A. Klokee, K Senkoro, P. Mayaud, J. Chagalucha, A. Nicoll. G. Ka-Gina, J. Newell, K. Mugeye, D. Mabey, R. Hayes (1995). "Impact of improved treatment of sexually transmitted diseases on HIV infection in rural Tanzania: randomized controlled trial", *Lancet*, 346 (8974): 530-536
- Hakim Abdul and Miller, Peter C., (2000) *Family Planning in Pakistan: A turning Point, Fertility Transition in South Asia, etd.*, Zeba Ayesha Sathar and James F. Philips, *International Studies in Demography*, Oxford University Press.
- Hakim, A., J. Cleland, Bhatti, M. (1998) "Pakistan Fertility and Family Planning Survey 1996-97," NIPS and Centre for Population Studies, London School of Hygiene and Tropical Medicine, Islamabad.
- Hakim, A., M. Sultan, and Faateh ud din. (2001) "Pakistan Reproductive Health and Family Planning Survey 2000-01," NIPS.
- Hakim, Abdul, (2000) 'Population Change and Development Prospects: Demographic Issue in Pakistan' in *Pakistan's Population Issue in the 21st Century*, Conference Proceedings, Oct. 24-26, 2000 Karachi, Population Association of Pakistan.
- Hakim, Abdul, John Cleland and Mansoor-ul-Hassan Bhatti (1999) *Pakistan Fertility and Family Planning Survey, 1996-97 (Main Report)*, Islamabad: NIPS and London School of Hygiene and Tropical Medicines.
- Hall ML (1990) Identification of high risk and low risk. *Clinical Obstetrics and Gynecology*. 4,149-168.
- Hatcher RA Russell J, Stewart F, et al 1998. *Contraceptive technology*. 17th ed. New York: Ardent; 800: Table 31-1
- Heise, L. 1993 'Violence against women: the missing agenda in M. Koblinsky Timyan and J. Gay (eds) *The Health of Women: a global perspective* (Boulder, Co. Westview Press).

- Humphreys, Laud: 1970. *Tearoom Trade*, Aldine, Chicago. Institute for Reproductive Health and American College of Nurse-Midwives. 1996. "Breastfeeding: Protecting a Natural Resource." Institute for Reproductive Health, Washington, D.C.
- International Centre for Research on Woman. 1989. *Strengthening Women: Health Research Priorities for Women in Developing Countries*. Washington, DC: ICRW.
- International Planned Parenthood Federation (IPPF). 1996. *Charter on Sexual and Reproductive Rights (Article 10.1)*. London: IPPF P.23.
- International Women's Health Coalition 1991, *Reproductive tract infections in women in the Third World: national and international policy implications* (New York: IWHC).
- IPS and Macro (2000). *National Family Health Survey (NFHS-2) 1998-99: India*, (Mumbai, International Institute for Population Sciences).
- ISIS International, 1985. *Women and health: the Brazilian experience*; *Women's Journal*, no.3.
- Jain, Anrudh, 1998, *Do Population Policies Matter ?* New York: The Population council.
- Janowitz, B., and J.H. Bratt. 1992 "Costs of Family Planning Services: A Critique of the Literature." *International Family Planning Perspectives* 18: 137.
- Jejeebhoy, S. (2000). "Adolescent sexual and reproductive behaviour: a review of the evidence from India", in, R. Ramasubban and S. Jejeebhoy (eds.), *Women's Reproductive Health in India*, (Jaipur, Rawat Publications).
- Jendrek, Margaret Platt: 1985. *Through the Maze: Statistics with computer Applications*, Wadsworth, Belmont, California, USA.
- JHPIEGO Corporation. 1998. "Training in Reproductive Health III.1998 Annual Report." "JPIEGO Corporation, Baltimore.
- Joseph, A., J. Prasad and S. Abraham (2002). "The risk of infection: gynaecological program among young married women in Tamil Nadu", in, S. Bott and others (eds.), *Adolescent Sexual and Reproductive Health: Evidence and*

- program Implications for South Asia, (Geneva World Health Organization).
- Karim, M.S. 1997. "Reproductive Behavior in Muslim Countries." Macro International, Inc. and UNFPA, New York.
- Kayani, A., Miller, P., Douthwaite, M., Minhas, A. (2001) "Pakistan Contraceptive User Satisfaction and Longevity Study 1997". Research Report No.18 Islamabad.
- Kazi A, Kennedy KI, Visness CM, Khan T 1995 . Effectiveness of the Lactational Amenorrhea Methods in Pakistan. *Fert and Steri* no 64 pp :717-23.
- King E.M. and M.A. Hill.1993. "Women's education in developing countries: An overviews," in E.M. King and M.A. Hill (ed), *Women's Education in Developing Countries: Barriers, Benefits and Policies*. Baltimore: Johns Hopkins University Press, pp.1-50.
- Koeing, A. Michal, Gillian H.C. Foo, and Katen Joshi. (2000) "Quality of Care Within India Family Welfare Programme: A review of Recent Evidence." *Studies in Family Planning*, 31, 1: 1-18.
- Kuhn, Thomas S. 1970 *The Structure of Scientific Revolutions*, University of Chicago Press, Chicago.
- Kulier, R., M. De Onis, A. M., Gulmezoglu, and J. Villar. 1998. "Nutritional Interventions for the Prevention of Maternal Morbidity." *International Journal of Gynecology and Obstetrics* 63: 231-246
- Kulkarni, S. (2002). "The reproductive health status of married adolescents as assessed by NFHS-2, India", in S. Bott and others (eds.), *Adolescent Sexual and Reproductive Health: Evidence and program implications for South Asia*, (Geneva, World Health Organization).
- Kwon, T., K.H. Jun and S. Cho (1999). "Sexuality, contraception and abortion among unmarried adolescents and young adults: the case of Korea" in, A. Mundigo and C. Indriso (eds.), *Abortion in the Developing World Findings from WHO Case Studies*, (Seoul, Vistaar Publications), pp. 346-367.

- Leslie, J. and Rao Gupta. 1989. Utilization of Formal Services for Maternal Nutrition and Health Care in the Third World. Washington, DC: ICRW.
- Levit-Dayal, M., R. Motihar, S. Kanani and A. Mishra (2002). "Adolescent girls in India choose a better future: and impact assessment", in, S. Bott and others (eds.), Adolescent Sexual and Reproductive Health: Evidence and program implications for South Asia, (Geneva, World Health Organization).
- Lewis, M.A. 1987. "Cost Recovery in Family Planning." Economic Development and Cultural Change 36: 161-182
- Li, Peter: 1981. Social Research Methods, Butterworth, Toronto. Lightfoot-Klein, H. 1989 Prisoners of Ritual: an odyssey into female genital circumcision in Africa (New York: Haworth Press).
- Ling, C 1991. ' Women and the environment: the Malaysian experience' in T. Wallace and C. March (eds) Changing Perceptions: writings on gender and development (Oxford: Oxfam).
- Liskin, L.S. 1992. "Maternal Morbidity in Developing Countries: A Review and Comments." International journal of Gynecology and Obstetrics 37: 77-87.
- Loether, Harman J., and Donald G. McTavish: 1976. Descriptive and Inferential Statistics: An Introduction, Allyn & Bacon, Boston.
- London School of Hygiene and Tropical Medicine: Proceeding of a Conference to Disseminate Results of Research on Reproductive Health, 15-04-1999, Islamabad.
- Lubis F. et al. 1997 Beseline data on ECP study, Indonesia. World Health Organization and Yayasan Kusuma Buana, Jakarta.
- Manjanja SP, Lindmark G, Nystrom L (1996) Randomised controlled trial of a reduced visit programme of antenatal care in Harare.
- Mc Devitt, T.M. 1996. "Trends in Adolescent Fertility and Contraceptive Use in the Developing World." U.S. Department of Commerce, Washington, D.C.

- McFarlane, C.P., Friedman and L. Morris (1994). *Contraceptive Prevalence Survey, Jamaica, 1993*.
- Meekers, Dominique and Dena Adhiambo Ogada. (2001). "Explaining discrepancies in reproductive health indicators from population based surveys and exit surveys: a case from Rwanda." *Health Policy and Planning*; 16 (2): 137-143.
- Mehra, Rekha et al.1992. *Engendering Development in Asia and the Near East: A Sourcebook*. Washington, DC: ICRW.
- Mahmood, M Arshad, 2001, *Factors affecting child survival in Pakistan*, Ph D dissertation, University of Southern California, USA.
- Miller, Delbert C.: 1983. *Handbook of Research Design and Social Measurement*, 4th ed., Long man, New York.
- Ministry of Population Welfare, January, (1999) "Population and Development Pakistan Country Report for ICPD+5.
- Mintzes, B. (ed) 1992. *A questions of Control: women's perspectives on the development and use of contraceptive technology* (Amsterdam: Women and Pharmaceuticals Project, Health Action International and WEMOS.
- Ahadees collection i.e. Mishkat Sharif, Edition -2 (1987) Hadis no: 3046-9, Bab ul Mubashrat; Chapter on legitimate mating , Maktaba- e- Rehmania Urdu Bazar Lahore, Pakistan.
- Moelino, (2002). "Sexual risk behavior of out-of-school young males in an urban slum: a case study in Duri Utara, Jakarta", paper presented at the Sixth Asia-Pacific Social Sciences and Medicine Conference, Kunming, China.
- Mother Care. 1999. "Safe Motherhood Indicators: Lessons Learned in Measuring Progress." *Mother Care Matters* 8 (1). John Snow, Inc., Arlington, Va.
- Muller, Daniel J.: 1986. *Measuring Social Attitudes: A Handbook for Researchers and Practitioners*, Teachers College Press, New York.
- Murphy, E. M., and C. Steele. 1997. "Client-Provider Interactions in Family Planning Services: Guidance from Research and Program Experience." USAID.

- Murthy, Nirmala, Lakshmi Ramachandar, Pertti Pelto, and Akhila Vasan. 2002. "Dismantling India's contraceptive target system: An overview and three case studies." In Haberland and Measham (eds.) *Responding to Cairo: Case Studies of Changing Practice in Reproductive Health and Family Planning*. New York: Population Council.
- National Institute of Population Studies. (2001) *Pakistan Reproductive Health and Family Planning Survey: 2000-01. Preliminary Report*. Islamabad.
- Nessa S. (1995) *Training Traditional Birth Attendants: success and failure in Bangladesh*. *Int J Gynaecol Obstet* 1995; 50: 135-139.
- Okonofua F.E. 1995 *Women's experiences of unwanted pregnancy and induced abortion in Nigeria*. The Population Council, New York.
- Oona Campbell, John Cleland, Martine Colombian and Karen Southwick, (1999) *Social Science Methods for Research on Reproductive Health*, World Health Organization. 1999.
- Pachauri, S. and K.G. Santhya (2002). "Contraceptive behaviours among adolescents in Asia: issues and challenges", in, S. Bott and others (eds.), *Adolescent Sexual and Reproductive Health: Evidence and program Implications for South Asia*, (Geneva, World Health Organization).
- Pachauri, Saroj, 2001. "Male involvement in reproductive health care." *Journal of the Indian Medical Association* 99(3): 138 –142.
- Pappenheim K. 1995 *Emergency Contraception Provision in the UK*. *Planned Parenthood in Europe* 24(2) pp. 20-22.
- Patel, V., G. Andrews, T. Pierre and N. Kamat (2001). "Gender, sexual abuse and risk behaviours in adolescents: a cross-sectional survey in schools in Goa", *The National Medical Journal of India* , 14(5): 263-267.
- Petchesky, Rosalind P., and Karen Judd, 1998, *Negotiating Reproductive Rights: Women's Perspectives Across Countries and cultures*, New York: St. Martin's.
- Pirie, W.R. and Hamden, M.A. 1972, "Some Revised Continuity Corrections for Discrete Data." *Biometrics* 28 :693-701.

- Planning Commission, (2001) Ten Years Prospective Development Plan 2001-2011 and Three years Development Program 2002-2004, Islamabad.
- Population Association of Pakistan, Islamabad, (2001) Pakistan's Population Issues in the 21st Century, Conference Proceedings October 24-26, 2000, Karachi.
- Population Council. 1996. "The Unfinished Transition." New York.
- Population Council. 2001. Power in Sexual Relationships: An Opening Dialogue Among Reproductive Health Professionals. New York: Population Council.
- Population Council/International Center for Research on Women. 2000. Adolescent Girls Livelihoods-Essential Questions, Essential Tools: A Report on a Workshop. New York and Washington, DC. Population Council and ICRW.
- PRB (2000). The World's Youth 2000, (Washington DC, Population Reference Bureau, Measure Communications).
- Presser, Harriet, and Gita Sen, 2000, Women's Empowerment and Demographic Processes: Moving Beyond Cairo. New York: Oxford University Press.
- Program for Appropriate Technology (PATH), Reproductive Health Outlook, Website accessed online at: WWW.rho.org on Jan. 23, 2001.
- PROGRAM FOR APPROPRIATE technology in Health (PATH) and World Health Organization (WHO), 2000, Female Genital Mutilation: Programs to Date: What makes and What Don't.
- Ramakrishna J., M. Karott and R.S. Murthy (2002). "Experiences of sexual coercion among street boys in Bangalore", in, S. Bott and others (eds), Adolescent Sexual and Reproductive Health: Evidence and Programme Implications for South Asia, (Geneva, World Health Organization.)
- Ranjha, S.M. and A. Hussein (2002). "Sexual Health services for adolescents at sex clinics in Rawalpindi, Pakistan: an overview of a pilot study by Sahil", in, S. Bott and others (eds.), Adolescent Sexual and Reproductive Health: Evidence and program Implications for South Asia, (Geneva, World Health Organization).

- Rao Gupta, Geeta. 2002 Vulnerability and Resilience Gender and HIV/AIDS in Latin America and the Caribbean, unpublished draft.
- Rashid, S. (2002) "Providing sex education to rural adolescents in Bangladesh: experiences from BRAC", *Gender and Development*, 8(2), July.
- Renne E.P. 1996 The pregnancy that doesn't stay : The practice and perception of abortion by Ekiti Yoruba women. *Social Science & Medicine* 42: 483-494.
- Ritzer, George: 1975. *Sociology: A Multiple Paradigm Science*, Allyn and Bacon, Boston.
- Robey, B., J. Ross and I. Bhushan (1996). *Meeting Unmet Need: New Strategies*, Population Reports, Series J, No. 43, (Baltimore, Maryland, Johns Hopkins University).
- Sathar, Z. (2001). "Fertility in Pakistan: past, present and future", United Nations Workshop on Prospects for Fertility Decline in High Fertility countries, United Nations publication (ESA/P/WP.167).
- Sathar, Z. and J. Casterline. (1998) The Onset of Fertility Transition in Pakistan. *Population and Development Review*. Vol. 24 No.4: 773-796.
- Sathar, Z.A. 1991 "Proximate Determinants of Fertility" .pp.85-92 in *Pakistan demographical and health survey 1990/91* , National Institute of Population studies.
- Sathar, Z.A (1990) Possible Reasons for Retardation in Fertility Change in South Asia. Sixth Annual General Meeting, Jan. 8-10 Pakistan Society of Developments Economist, Islamabad, Pakistan,
- Sathar, Zeba A. (2001). "Fertility in Pakistan: Past, Present and Future", Workshop on Prospects for Fertility Decline in High Countries, Population Division, Department of Economic and Social Affairs, United Nations Secretariat, New York.
- Scott, J. 1993. 'The impact of Norplant on poor women and women of color in the US, Women's Global Network for Reproductive Rights Newsletter, no. 42, pp. 16-18.
- Shane, B.1997. "Family Planning Saves Lives." 3rd edition. Population reference Bureau, Washington, D.C.

- Sharp V.F. 1979, *Statistics for Social Sciences*, Published in Canada by Little Brown & Co. Canada. Printed in USA.
- Sholkamy, H.M. 1996. "Women's Health Perceptions: A Necessary Approach to an Understanding of Health and Well-Being." Population Council, Gaza.
- Simon, Julian L., and Paul Burstein: 1985. *Basic Research Methods in Social Science*, 3rd ed., Random House, New York.
- Saleem, A.(1998) *Log-Linear and Logistic Regression, Analysis of the reproductive behavior of Pakistani married women*. M Phil thesis in Department of statistics U.A.F Pakistan
- Singh, S. (1998). "Adolescent childbearing in developing countries: a global review", *Studies in Family Planning*, 29(2):117-163.
- Snowden, R.1990 "The 16th Jennifer Hallam Memorial Lecture Fertility Regulating Behavior". *The British Journal of Family Planning* 15 (suppl): 3-7.
- Soomro, G.Y. (2000) *A re-examination of Fertility Transition in Pakistan*. Paper presented at the PAP Conference on Pakistan's Population Issue in the 21st Century. Oct. 24-26 2000. |Karachi.
- Speizer, Ilene S., Kenneth A. Bollen. (2001). "Do Perceptions of Service Quality Correspond to Objective Measures?" *Studies in Family Planning*, 31, 2: 118-127.
- Spieler JM, Collins WP. 2001 Potential fertility-defining the window windos of opportunity. *J Intl Med Res*. 29(suppl.1):3A-13A.
- Starrs, A. 1997. "The Safe Motherhood Action Agenda: Priorities for the Next Decade." Inter-Agency Group for safe Motherhood, Colombo.
- Stover J, Bertrand J, Smith S, et al 2001. Empirically based conversion factors for calculating couple-years of protection. *Carolina Population center no -32*
- Tangmunkongvorakul, A. and P. Bhuttarowas (2002). "Gender double standards and sexual health of adolescent females: evidence from adolescents and providers in northern Thailand", paper presented at the Sixth Asia-Pacific Social Science and Medicine Conference, Kunming City, China.
- Thomas Merrick, 1999 "Delivering Reproductive Health Services in Health Reform Setting: Challenges and Opportunities" (Background paper prepared for

- the core course in Population, Reproductive Health, and Health Sector Reform, World Bank Institute, Washington, DC.
- Thomas, N. 1991 “Land, Fertility, and Population Establishment” *Population Studies* 45(3):379-398.
- Tinker, A., T. Merrick, and A. Adeyi. 1995. “Improving Reproductive Health: The Role of The World Bank.” World Bank, Washington. D.C.
- Tsui, Amy, Judith Wasserheit, and John Haaga, 1997, *Reproductive Health in Developing countries*, Washington DC: National Academy Press.
- Turner, R.1992“Gambian Religious Leaders Teach About Islam and Family Planning”. *International Family Planning perspectives* Vol.18(4):150-151.
- UNAIDS (1997). *Impact of HIV and Sexual Health Education on the Sexual Behaviour of Young People: A Review update*, (Geneva, UNAIDS).
- UNAIDS. 1997 *Impact of HIV and Sexual Health Education on the Sexual Behavior of Young People: A Review Update*, document UNAIDS/97.4. Geneva: UNAIDS.
- UNDP. 1996. *Human Development Report 1996*. New York Oxford, University press.
- UNDP. 1998. *Human Development Report 1998*. New York Oxford, University press.
- UNFPA, 2000, *State of World Population 29*.
- UNFPA. 2002 “Providing services that young people wants and needs,” www.unfpa.org/adolescents/page02.htm.
- UNICEF (2001) *The Progress of Nations 2001*, (New York, United Nations Children’s fund).
- UNICEF, UNAIDS and WHO (2002). *Young People and HIV/AIDS: Opportunity in Crisis*, (Geneva, United Nations Children’s Fund, Joint United Nations Programme on HIV/AIDS, World Health Organization).
- Unisa, Sayeed. 1999 “Childlessness in Andhra Pradesh, India: Treatment-seeking and consequences. “*Reproductive Health Matters* 7(13): 54-64.
- United Nations (1999). “ *World Population Prospects: The 1998 Revision*”. Department for Economic and Social Affairs, New York: Population Division.
- United Nations (1999). *The world at Six Billion*, (New York, United Nations), United Nations publication (ESA/P/WP.154).

- United Nations. 1999. Demographic Yearbook 1997. New York.
- USAID. 1998. "Egypt Bilateral Population/Family Planning III project (1994-98): Results, Challenges and Opportunities." Washington, D.C.
- Waszak, C., S. Thapa and J. Davey (2002) "Youth perspectives on the influence of gender norms on the reproductive health of adolescents in Nepal", in, S. Bott and others (eds.), Adolescent Sexual and Reproductive Health: Evidence and program Implications for South Asia, (Geneva, World Health Organization).
- Weisberg, Hewrbert F., and Buce D. Bowen: 1977. An Introduction to Survey Research and Data Analysis, Freeman, San Francisco.
- WHO and the World Bank. 1997. "Maternal Health Around the World" WHO, Geneva.
- WHO Division of Non-Communicable Diseases, Programme of Nutrition, Family and Reproductive Health. 1998. "Obesity: Preventing and Managing the Global Epidemic: Report of a WHO Consultation on Obesity" WHO, Geneva.
- WHO, Division of Reproductive Health. 1997. Mother-Baby package Reproductive Health Costing Workbook. WHO, Geneva.
- WHO, Division of Reproductive Health. 1998. "Unsafe Abortion: Global and Regional Estimates of Incidence of and Mortality due to Unsafe Abortion with a Listing of Available Country Data." WHO, Geneva.
- WHO, Family and Reproductive Health. 1996. "Female Genital Mutilation: Information Kit." WHO, Geneva.
- WHO, Family and Reproductive Health. 1997 "Coverage of Maternity Care A Listing of Available Information." WHO, Geneva.
- Wilcos AJ, Weinberg CR, Baird DD. 1995. Timing of sexual intercourse in relation to ovulation. *New English Journal of Medicine* 333 p p:1517-21.
- Wilcox AJ, Dunson, D, Baird DD. 2000; The timing of the "fertile window" in the menstrual cycle: day specific estimates from a prospective study. *Brit Med J* no-321:p pp 1259-62.
- Wilcox AJ, Weinberg CR, Baird DD. 1998: Post-ovulation aging of the human oocyte and embryo failure. *Hum Reprod* 13:394-7.

- Winer, B.J. 1971. *Statistical Principles in Experimental Design*, 2nd ed. New York: McGraw-Hill Book Co.
- World Bank (2001). *World Development Indicators*, (Washington DC, World Bank).
- World Bank 1999. "Safe Motherhood and the World Bank: Lessons from Ten Years of Experience." Draft. Washington, D.C.
- World Bank, 1998. *World Development Report 1998*. New York: Oxford University Press
- World Bank. 1989. *Women in Development: Issues for Economic and Sector Analysis, Policy, Planning, and Research*, Washington, DC: World Bank.
- World Bank. 1990. "Morocco: Health Sector Investment Loan Project: Staff Appraisal Report." Washington, D.C.
- World Bank. 1996 "Improving Women's Health in India." Washington, D.C.
- World Bank. 1998. "World Development Indicators 1998." Washington, D.C.
- World Bank. 2000. "Population and the World Bank: Adapting to Change." Washington, D.C.
- Youis, N., K. Khalil, H. Zurayk, and H. Khattab. 1994 "Learning About Gynecological Health of Women." Policy Series in Reproductive Health, no. 2. Population Council, Cairo.
- Zafar M. I. 1993, the co relations contraceptive and fertility behavior within the frame work of socio cultural ideology: A case study of two urban center in Pakistan, Ph. Dissertation, the University of Exeter, U.K.
- Zhena, Z., Y. Zhou, L. Zheng, Y. Yang and D. Zhao (2001). "Sexual behaviour and contraceptive use among unmarried, young women migrant workers in five cities in China", *Reproductive Health Matters*, 9(17):118-127.
- Zink, C., ed. 1998. *Dictionary of Obstetrics and Gynecology* New York: Walter de Gruyter.
- Zurayk, H. 1994. "Women's Reproductive Health in the Arab World." Population Council, Cairo.
- Zurayk, H., N. Younis, and H. Khattab. 1994. "Rethinking Family Planning Policy in Light of Reproductive Health Research. " Policy Series in Reproductive Health, No.1. Population Council, Cairo.

Appendix

Annex-1

INTERVIEW SCHEDULE

INVESTIGATION OF WOMAN REPRODUCTIVE HEALTH WITHIN THE SOCIO-ECONOMIC AND CULTURAL FRAME WORK:

A study of two districts of N.W.F.P.

For Interviewers

- (i) Complete the interview schedule
- (ii) To answers question below
Either mark in tick (✓) for the answer,
Or Write down, where appropriate, the correct information.
- (iii) We assure you that information's collected by you will be kept
confidential.

SERIAL NO. _____ DATE OF INTERVIEW _____
1. PESHAWAR _____ KOHAT _____
LOCALITY NO. _____ HOUSE _____

Section: **GENERAL CHARACTERISTICS**

- 1. What is your age? _____
- 2. What is the age of your husband? _____
- 3. What was your age at marriage? _____
- 4. What was your husbands' age at marriage? _____
- 5. Are you literate 1 . Yes _____ 2. No. _____

5a. If yes, then what was the highest class you passed at school or at college.

CIRCLE AROUND THE LEVEL

LEVEL	Class
Primary _____	1 2 3 4 5
Secondary _____	1 2 3 4 5
College _____	1 2 3 4
Higher (Uni) _____	1 2

6. Are your husband literate 1. Yes 2. No
 6a if yes, then what was the highest class he passed at school or at college.
 Level of education.

CIRCLE AROUND THE LEVEL

LEVEL	class
Primary _____	1 2 3 4 5
Secondary _____	1 2 3 4 5
College _____	1 2 3 4
Higher (Uni) _____	1 2

What is your occupation?

1. House wife.
2. Employee (Doing some job)
3. Business at homes.
4. Business by selling goods.
5. Any other (please specify)

How much money do you earn from your job monthly? _____

What is your husband's occupation?

1. Govt. employee.
2. Agriculturist.
3. Business.
4. Self employed
5. Unemployed
6. Any other (specify)

10. What is your family monthly income, from all sources? _____

11. What type of family are you living in?
 1) Nuclear _____ 2) Joint _____ 3) Extended

12. Are you married within family? 1 Yes 2 No
 if yes 1) Paternal cousin 2) Maternal cousin
 3) Near relative 4) Distant relative
 5) Out of relative

13. Which set up of family would you prefer?
 1) Patriarchal. _____ 2) Matriarchal _____

Now we would like to ask you for detail of all children you have ever had.

14. How many times did you get pregnant?
15. How many live births have you had?
 Please be sure to include all the children you have given birth. Even if some one lived only short time.

- Number _____
16. How many children are living with you (now)? _____
17. How many boys and how many girls.
 Boy's _____ Girls _____
18. How many children of your have been died? Please include also those who died just after birth?
 Number _____
- 18a. Have your any child died within the one year of life.
 1) Yes ----- 2) No -----
 if yes what was his/her age at the time of death.
 1) Days _____ 2) Weeks _____ 3) Months _____

SECTION B. FAMILY SIZE AND SEX PREFERENCE.

19. Do you want more children in the future?
 19a 1) Yes ----- 2) No -----
 If yes, how many
 1) Total _____ 2) Boys _____ 3) Girls _____
-
20. Do your husband want more children in future?
 1) Yes _____ 2) No _____ Girls _____
- 20a. If yes, how many?
 Total no _____ Boys _____ Girls _____
21. How many children a family like you should have?
 Total _____ Boys _____ Girls _____
22. How many children make up a large family?
 Total _____ Boys _____ Girls _____
23. How many children make a small family?
 Total _____ Boys _____ Girls _____
24. Sometimes, the number of boys and girls does make a difference, if you could have three children in total which of following families would you chose?
 (READ TGE FIKKIWUBG KUST)
 1) 3 girls 2) 1 Boys and 2 girls
 3) 2 boys 1 girl 4) 3 boys
25. How imagine only decision you could make in to have either three girls, 2 boys or one girl.
 Which one would you choose?
 1) 3 girls 2) 2 boys and one girl
26. Next imagine only decision you could make is to have either three girls or 3 boys, which one would you choose?
 1) 3 girls 2) 3 Boys

27. Now imagine only you could choose between one of following families, which one would you chose?
- 1) No children 2) 1 boy and 1 girl
 3) 2 boys and 2 girls 4) 3 boys 3 girls
28. Next, imagine that you could only choose between having either no children or having two boys and two girls, which one would you choose?
- 1) No children 2) 2 boys and 2 girls
29. Now, imagine that you could only choose between having either one boy or one girl and having three boys and three girls, which one would you, choose?
- 1) 1 boy and 1 girl 2) 3 boys and 3 girls
30. Finally, imagine that you could only choose between having either no children or having three boys and three girls, which one would you choose. ?
- 31 Now I would like to read some statement about sex preference, about the children, to what extent do you agree or disagree with these statements.

Statements	Strongly Agreed	Agreed	No Opinion	Disagree	Strongly disagreed
a. A woman is not respected within family if she has no boy.					
b. Male children are preferred over girls					
c. A family with more male children is considered strong in the society.					
d. Too many girls are unwanted children					
e. Family line continues with male children.					
f. Male children guarantees good husband wife relationship					
g. Woman with male children receives a great respect from her in –laws family.					

SECTION C; GENDER ROLES AND RELATIONSHIPS

32. As you know there are different types of families. In some, men carry out jobs, wherein others. Women are only responsible for this. We would like to see how often your husband takes part in following activities.

	1	2	3
Activities	Often	Rare	Never
Household chores			
a. in cleaning			
b. in cooking			
c. In child rearing			
d. Caring for the children			
e. Caring for the elderly			

33. Do your husband can allow you in the following activities.

	1	2	3	4
Activities	Yes, he never minds	Yes, he allows with some restriction.	Not sure	Not at all
a. To participate in relatives or friends marriage.				
b. To take for shopping.				
c. To practice half sleeved dress.				
d. To take you to movies.				
e. To participate in the neighbors' functions				
f. Local health center				
g. Local market				

34. We want to assess your participation in decision making process through knowing your opinion above the different aspects of family life. How strongly you agree or disagree with the following statement.

	1	2	3	4	5
Statements	SA	A	NO	DA	SDA
a. All decisions concerning household should be taken by man.					
b. A woman should not seek job outside the home.					
c. A employed man should not take part in domestic activities.					
d. The prime responsibility of woman is to bear and rear the children.					
e. The decision about shopping and exchange of gifts should be taken by man.					
f. The woman should not take part in politics.					
g. A married woman should confine herself to home affairs.					

35. Now we would like to know your communication with your husband on the issue of reproductive health like palling the family, contraception. How frequently do you discuss the following family matters with your husband.

	1	2	3
Matters	Frequently	Sometimes	Never
a. about number of children			
b. about family planning			
c. about the side effects of contraception			
d. about spacing of children.			
e. about pregnancy problems/ complications.			
f. place for getting contraception.			

SECITON D: RELIGIOSITY

36 How strongly you agree or disagree with following statements concerning religious aspects about family life?

	1	2	3	4	
5					
Statements	SA	A	NO	DA	SDA
a. it is not worth to plant in advance because may things happen to destiny					
b. The Holy Quran does not allow contraception to limit the family size					
c. Contraceptive using means killing the children.					
d. The new born children bring with them the food which they have take in their life.					
e. It is sin to use contraception.					
f. The all souls are from God which are pre-decided and efforts to limit family size are useless and sinful.					
g. I agree family is blessing of the God, the he who limit the family size mean denies the blessing .					

SECTION E: REPRODUCTIVE HEALTH ISSUES AND MATTERS AND HEALTH FACILITIES.

37. What age woman should get married?

- i. Before the age of twenty after majority?
- ii. Between 21-25 years of age.
- iii. Between 26-30 years of age.
- iv. Between 31-35 years of age.
- v. Above 35

37a. Have you ever had any reproductive health problem.

- 1) Yes
- 2) No.

37b. what reproductive health problems do you face.

	1
2	
Problems	
a. Heavy bleeding	Yes No
b. Irregular menses	
c. Leucorrhoea	
d. Uterus infections.	
e. Inflammation/ swelling	
f. Abortion	
g. Fallopian tube problem	
h. Miscarriage	
i. Pregnancy	
j. Breast Problems.	

38. When woman have more chances of pregnancy?
- i One or two days before periods . _____
 - ii One or two days after periods. _____
 - iii About middle. _____
 - iv Just any time . _____
 - v. Not sure _____
39. Where did you get advice during last pregnancy?
- a) Lady doctor in hospital _____
 - b) Private Doctor. _____
 - c) Family welfare center _____
 - d) L.H.V. _____
 - e) Dai. _____
 - f) Any other (specify). _____
40. Have you ever faced delivery complications?
- 1) Yes ----- 2) No. -----
- if yes, How problem was solved ?
- a) By consulting lady doctor _____
 - b) By consulting L.H.V. _____
 - c) By consulting Dai. _____
 - d) Hakim _____
 - e) Any other (please specify) _____
41. Have you ever faced reproductive tract Infection (RTF)?
- 1) Yes _____ 2. No _____
- If yes, how was it solved (Please explain)?
42. In your opinion what was the cause of R.T.I.
- i. Little knowledge about pregnancy.
 - ii. Pre-natal negligence.
 - iii. Post-partum complications.
 - iv. No. knowledge about family planning/ reproductive health.
43. Where did your last live birth take place?
- a) At home. _____
 - b) At hospital. _____
 - c) Private clinic. _____
 - d) M.C.H. center. _____
 - e) Any other (specify) _____
44. Whom did you consult after delivery (Post-partum?)
- i) Doctor _____ ii) L.H.V./ Dai. _____
 - iii) Midwife _____ iv) Hakim _____
 - v) Any other Specify _____

45. Do you know about birth control methods?
 1) Yes _____ 2) No _____
46. Have you ever used any method of contraception?
 1) Yes _____ 2) No _____
- 46a. If yes, where did you get it ?
 i) F.P. centers _____ ii) Market _____
 iii) Friends _____ iv) Relatives _____
 v) Dai/LHV _____ vi) Others, please specify _____
47. Which one method of birth control did you use or currently using?
 1. Pill _____ 2. IUD _____
 3. Condom _____ 4. Injection _____
 5. Female Sterilization _____ 6. Male sterilization _____
 7. Traditional method (rhythm) _____ 8. Any other (please specify) _____
48. b) Who decided for contraceptive use ?
 1. Yourself _____ 2. Husband _____
 3. Both _____ 4. Others (Please specify) _____
49. Did you have any side effect or complication of contraception which you have used or using?
 1. Yes _____ 2. No. _____
- 49a. if yes, please specify.

NOT USERS OF CONTRACEPTIVES

50. If not using, who decided not using contraceptives to avoid pregnancy.
 i. I decided _____
 ii. Husband decided _____
 iii. Both decided. _____
 iv. Mothers in Law _____
 v. Others. _____
51. What is particular reason for not using F.P. methods? _____
52. Are you ready to change you behavior about F.P. (please specify)
 1) Yes _____ 2) No _____
- 52a. If yes, who motivated you.
 i. My self _____
 ii. Husband. _____
 iii. Relatives. _____

- iv. Friends. _____
- v. Family planning staff _____
- vi. Any other (please specify) _____

SECTION F: COST OF CONTRACEPTION

53. Many problems are involved in getting contraceptive methods. Are these problems affordable or not affordable to you.

Problems	1	2
	affordable	not affordable
i. Time you spent for taking health care services (family planning).		
ii. Expenses/Money spent		
iii. Conveyance/Availability of vehicle.		
iv. Looking after children by other relatives when to go for getting service.		

54. People have different feeling and views about the use of contraception. Now I would like to know your opinion about to following statement.

Statements	1	2	3	4	5
	S.A.	A	NO	DA	SDA
a. Against human nature.					
b. It create conflict among spouse.					
c. It creates normlessness.					
d. It is unislamic.					
e. It is embarrassing to talk about with the friends .					
f. It is health hazardous					

SECITON G:

ATTITUDE OF HEALTH PROVIDERS

55. It is a common view in the society that people are not happy with services provided by the health personnel. Now I would like to know your experience in this issue. Please tell us how are you satisfied with heath providers attitude.

- 1) Yes _____
- 2) No _____

55a. we would like know your view point on the following statements regarding the health providers attitude in the provision health facilities .

If Yes.

Health issue	1	2	3
	Often	Rare	Not
1. They provide health aid to mother and child			
2. They provide necessary emergency help to pregnant.			
3. They diagnose the pre-natal and post-partum problems satisfactory.			
4. They diagnose alarming conditions of pregnant woman.			

56. How many times do you have pre-natal/postpartum checkup.

56a. Pre-natal 1)Once _____ 2)Twice _____ 3) More _____

56b. Post-partum 1) One _____ 2) Twice _____ 3) More _____

57. If you desire to discuss the to health problems in privacy with the health providers, whether that facility is available.

1) Yes _____ 2. No _____

58. Do you feel confident to discuss the health problems with the health providers like (Doctor & Nurses)

1) Yes _____ 2. No _____

58a. If no please explain _____

59. How you can describe the attitude of the health provider.

1) Very cooperative _____ 2) Just normal _____ 3) Non cooperative _____

FOR INTERVIEWERS

How much time have you taken in conducting interview. _____

How you can describe the attitude of the respondent during conducting the interview.

1) Very cooperative _____ 2) Normal _____

3) Non cooperative _____

Please say to the respondent

Thank you very much for providing the valuable information on reproductive health aspects, we assure you that these information will be kept confidential and used for academic and research purposes.

Annex-2

Simple Tables

Table 1 Respondent's literacy

S.No.	Yes	No.	Total
1. Kohat	179 49.7	181 50.3	360 50.0
2. Peshawar	252 70.0	108 30.0	360 50.0
Column	431	289	720
Total	59.9	40.1	100.0

Table 2 Husband literacy

S.No.	Yes	No.	Total
1. Kohat	295 81.9	65 18.1	360 50
2. Peshawar	333 92.5	27 7.5	360 50.0
Column	628	92	720
Total	87.2	12.8	100.0

Table 3 Respondent Occupation

S.No.	Housewife	Employee	Business	Business by sell	Another	Total
1. Kohat	314 87.2	38 10.6	3 .8	1 .3	4 1.1	360 50.0
2. Peshawar	216 60.0	87 24.2	44 12.2	12 3.3	1 .3	360 50.0
Column	530	125	47	13	5	720
Total	73.6	17.4	6.5	1.8	.7	100.0

Table 4 Set up of family

Sr. no.	Patriarchal	Matriarchal	Total
1. Kohat	353 98.1	7 1.9	360 50.0
2. Peshawar	160 44.4	200 55.6	360 50.0
Column	513	207	720
Total	71.3	28.8	100.0

Table 5 Variable- no: 18 /Child mortality

Sr. No.	0	1	2	3	4	Total
1. Kohat	321 89.2	29 8.1	6 1.7	3 .8	1 .3	360 50.0
2. Peshawar	333 92.5	26 7.2	1 .3	—	—	360 50.0
Column Total	654 90.8	55 7.6	7 1.0	3 .4	1 .1	720 100.0

Table 6 Variable no: 19 Do you want more children?

Sr.No.	Yes	No.	Total
1. Kohat	145 40.3	215 59.7	360 50.0
2. Peshawar	147 40.8	213 59.2	360 50.0
Column Total	292 40.6	428 59.4	720 100.0

Table 7 Do your husband want more children?

Sr. No.	Yes	No.	Total
1. Kohat	172 47.8	188 52.2	360 50.0
2. Peshawar	146 40.6	214 59.4	360 50.0
Column Total	318 44.2	402 55.8	720 100.0

Table 8 How many boys

Sr.No.	.00	1.00	2.00	3.00	4.00	5.00	7.00	Total
1. Kohat	--	30 8.3	184 51.1	135 37.5	4 1.1	6 1.7	1 .3	360 50.0
2. Peshawar	2 .6	42 11.7	206 57.2	102 28.3	7 1.9	1 .3	--	360 50.0
Column Total	2 .3	72 10.0	390 54.2	237 32.9	11 1.5	7 1.0	1 .1	720 100.0

Table 9 How many girls

Sr.No.	.00	1.00	2.00	3.00	4.00	5.00	6.00	Total
1. Kohat	18 5.0	95 26.4	201 55.8	43 11.9	--	2 .6	1 .3	360 50.0
2. Peshawar	14 3.9	102 28.3	196 54.4	46 12.8	2 .6	--	--	360 50.0
Column Total	32 4.4	197 27.4	397 55.1	89 12.4	2 .3	2 .3	1 .1	720 100.00

Table 10 How many children make a large family? No of boys

Sr. No.	1	2	3	4	5	6	Total
1. Kohat	20 5.6	141 39.2	129 35.8	61 16.9	8 2.2	1 .3	360 50.0
2. Peshawar	20 5.6	66 18.3	163 45.3	98 27.2	11 3.1	2 .6	360 50.0
Column Total	40 5.6	207 28.8	292 40.6	159 22.1	19 2.6	3 .4	720 100.0

Table 11 No of girls

Sr.No.	0	1	2	3	4	5	6	7	Total
1. Kohat	19 5.3	121 33.6	169 46.9	38 10.6	9 2.5	1 .3	1 .3	2 .6	360 50.0
2. Peshawar	4 1.1	86 23.9	166 46.1	90 25.0	13 3.6	1 .3	--	--	360 50.0
Column Total	23 3.2	207 28.8	335 46.5	128 17.8	22 3.1	2 .3	1 .1	2 .3	720 100.0

Table 12 How many children make small family? No of boys

Sr. no.	1	2	3	4	5	Total
1. Kohat	212 58.9	122 33.9	22 6.1	3 .8	1 .3	360 50.0
2. Peshawar	132 36.7	202 56.1	25 6.9	1 .3	--	360 50.0
Column Total	344 47.8	324 45.0	47 6.5	4 .6	1 .1	720 100.0

Table 13 Small family no of girls

Sr. No.	0	1	2	3	Total
1. Kohat	8 2.2	310 86.1	42 11.7	--	360 50.0
2. Peshawar	20 5.6	252 70.0	86 23.9	2 .6	360 50.0
Column Total	28 3.9	562 78.1	128 17.8	2 .3	720 100.0

Table 14 Imagine to make a decision in 3G, 2 B Questions no 24

Sr. no.	1	2	3	4	Total
1. Kohat	8 2.2	322 89.4	27 7.5	3 .8	360 50.0
2. Peshawar	4 1.1	339 94.2	15 4.2	2 .6	360 50.0
Column Total	12 1.7	661 91.8	42 5.8	5 .7	720 100.0

Table 15 Imagine to have family of 1B-1G, 2B-2

Sr.no.	1	2	Total
1. Kohat	146 40.6	214 59.4	360 50.0
2. Peshawar	76 21.1	284 78.9	360 50.0
Column Total	222 30.8	498 69.2	720 100.0

Table 16 Imagine to have no children or

Sr. No.	1 no Child	2 boys & girls	3	4	Total
1. kohat	25 6.9	333 92.5	1 .3	1 .3	360 50.0
2. Peshawar	28 7.8	332 92.2	--	--	360 50.0
Column Total	53 7.4	665 92.4	1 .1	1 .1	720 100.0

Table 17 By what age woman should get married

Sr. No.	Before age of 20	Between 21-25	Between 26-30	Between 31-35	Total
1. Kohat	129 35.8	197 54.7	33 9.2	1 .3	360 50.0
2. Peshawar	83 23.1	199 55.3	77 21.4	1 .3	360 50.0
Column Total	212 29.4	396 55.0	110 15.3	2 .3	720 100.0

Table 18 Have you ever faced delivery complication?

Sr. No.	Yes	No.	Total
1. Kohat	161 44.7	199 55.3	360 50.0
2. Peshawar	306 85.0	54 15.0	360 50.0
Column Total	467 64.9	253 35.1	720 100.0

Table 19 If yes, problem solved by

Sr. no.	0	Lady dr.	L.H.V.	Dai	Hakim	another	Total
1. Kohat	240 66.7	93 25.8	12 3.3	13 3.6	2 .6	--	360 50.0
2. Peshawar	13 3.6	186 51.7	99 27.5	52 14.4	2 .6	8 2.2	360 50.0
Column Total	253 35.1	279 38.8	111 15.4	65 9.0	4 .6	8 1.1	720 100.0

Table 20 Ever faced RTF

Sr. No.	Yes	No	Total
1. Kohat	85 23.6	275 76.4	360 50.0
2. Peshawar	75 20.8	285 79.2	360 50.0
Column Total	160 22.2	560 77.8	720 100.0

Table 21 Where last live birth take place.

Sr.no.	Home	hospital	Private clinic	M.C.H. centre	Another	Total
1. kohat	115 31.9	167 46.4	61 16.9	16 4.4	1 .3	360 50.0
2. Peshawar	183 50.8	102 28.3	42 11.7	26 7.2	7 1.9	360 50.0
Column Total	298 41.4	269 37.4	103 14.3	42 5.8	8 1.1	720 100.0

Table 22 Whom you consult after delivery

Sr. no.	0	Doctor	LHV/Dai	Midwife	Hakim	another	Total
1. Kohat	192 53.3	129 35.8	36 10.0	--	1 .3	2 .6	360 50.0
2. Peshawar	---	153 42.5	176 48.9	23 6.4	2 .6	6 1.7	360 50.0
Column Total	192 26.7	282 39.2	212 29.4	23 3.2	3 .4	8 1.1	720 100.0

Table 23 Do you know about birth control methods?

Sr.no.	No knowledge	Yes	No	Total
1. kohat	1 .3	77 21.4	282 78.3	360 50.0
2. Peshawar	--	360 100.0	--	360 50.0
Column Total	1 .1	437 60.7	282 39.2	720 100.0

Table 24 Which method you are using/ did use

SrNo.	0	Pill	IUD	Condom	Injections	Female sterilize	Rhythm	Another	Total
1. Khot	137 38.1	97 26.9	18 5.0	12 3.3	42 11.7	54 15.0	--	----	360 50.0
2. Peshawar	86 23.9	57 15.8	46 12.8	40 11.1	76 21.1	50 13.9	4 1.1	1 .3	360 50.0
Column Total	223 31.0	154 21.4	64 8.9	52 7.2	118 16.4	104 14.4	4 .6	1 .1	720 100.0

Table 25 Who decided for contraceptive use

Sr. No.	0	Yourself	husband	both	Others	Total
1. Kohat	163 45.3	51 14.2	16 4.4	80 22.2	50 13.9	360 50.0
2. Peshawar	102 28.3	22 6.1	40 11.1	183 50.8	13 3.6	360 50.0
Column Total	265 36.8	73 10.1	56 7.8	263 36.5	63 8.8	720 100.0

Table 26 Did you have any side effects/complicate

Sr. No.	0	Yes	No	Total
1. Kohat	162 45.0	66 18.3	132 36.7	360 50.0
2. Peshawar	86 23.9	38 10.6	236 65.6	360 50.0
Column Total	248 34.4	104 14.4	368 51.1	720 100.0

Table 27 If not using who decided

Sr. No.	0	myself	husband	Both	Mother in law	Other	Total
1. Kohat	200 55.6	45 12.5	52 14.4	54 15.0	1 .3	8 2.2	360 50.0
2. Peshawar	120 33.3	48 13.3	119 33.1	67 18.6	2 .6	4 1.1	360 50.0
Column Total	320 44.4	93 12.9	171 23.8	121 16.8	3 .4	12 1.7	720 100.0s

Table 28 Are you ready to change your behavior?

Sr. No.	0	Yes	No	Total
1. Kohat	195 54.2	153 42.5	12 3.3	360 50.0
2. Peshawar	86 23.9	173 48.1	101 28.1	360 50.0
Column Total	281 39.0	326 45.3	113 15.7	720 100.0

Table 29 No of prenatal check up

Sr. No.	0	Once	Twice	More	Total
1. Kohat	5 1.4	64 17.8	118 32.8	173 48.1	360 50.0
2. Peshawar	7 1.9	65 18.1	133 36.9	155 43.1	360 50.0
Column Total	12 1.7	129 17.9	251 34.9	328 45.6	720 100.0

Table 30 Privacy with health providers available

Sr. No.	Yes	No	Total
1. Kohat	223 61.9	137 38.1	360 50.0
2. Peshawar	248 68.9	112 31.1	360 50.0
Column Total	471 65.4	249 34.6	720 100.0

Table 31 Confident to discuss health problem with them

Sr. No.	Yes	No.	Total
1. Kohat	281 78.1	79 21.9	360 50.0
2. Peshawar	204 56.7	156 43.3	360 50.0
Column Total	485 67.4	235 32.6	720 100.0

Table 32 Attitude of the health providers

Sr. No.	Very cooperative	Just normal	Non cooperative	Total
1. Kohat	167 46.4	132 36.7	61 16.9	360 50.0
2. Peshawar	192 53.3	119 33.1	49 13.6	360 50.0
Column Total	359 49.9	251 34.9	110 15.3	720 100.0

Table 33 Family size

Sr. No.	Small	Medium	Large	Total
1. Kohat	195 54.2	112 31.1	53 14.7	360 50.0
2. Peshawar	130 36.1	142 39.4	88 24.4	360 50.0
Column Total	325 45.1	254 35.3	141 19.6	720 100.0

Table 34 Family Income

Sr. No	1	2	3	4	Total
1. Kohat	194 53.9	145 40.3	17 4.7	4 1.1	360 50.0
2. Peshawar	89 53.9	157 43.6	62 17.2	52 14.4	360 50.0
Column Total	283 39.3	302 41.9	79 11.0	56 7.8	720 100.0

Table 35 Age at marriage

Sr. No.	1	2	3	Total
1. Kohat	238 66.1	100 27.8	22 6.1	360 50.0
2. Peshawar	145 40.3	188 52.2	27 7.5	360 50.0
Column Total	383 53.2	288 40.0	49 6.8	720 100.0

Table 36 Sex preference classes

Sr. NO.	Low	Medium	High	Total
1. Kohat	39 10.8	248 68.9	73 20.3	360 50.0
2. Peshawar	64 17.8	147 40.8	149 41.4	360 50.0
Column Total	103 14.3	395 54.9	222 30.8	720 100.0

Table 37 Domestic chore classes

Sr. No.	Low	Medium	High	Total
1. Kohat	140 38.9	111 30.8	109 30.3	360 50.0
2. Peshawar	203 56.4	131 36.4	26 7.2	360 50.0
Column Total	343 47.6	242 33.6	135 18.8	720 100.0

Table 38 Household activity classes

Sr. No.	Low	Medium	High	Total
1. Kohat	264 73.3	29 8.1	67 18.6	360 50.0
2. Peshawar	183 50.8	118 32.8	59 16.4	360 50.0
Column Total	447 62.1	147 20.4	126 17.5	720 100.0

Table 39 Women participation class

Sr. No.	Low	Medium	High	Total
1. Kohat	13 3.6	163 45.3	184 51.1	360 50.0
2. Peshawar	52 14.4	233 64.7	75 20.8	360 50.0
Column Total	65 9.0	396 55.0	259 36.0	720 100.0

Table 40 Communication on family matters classes

Sr. No.	Low	Medium	High	Total
1. Kohat	209 58.1	36 10.0	115 31.9	360 50.0
2. Peshawar	155 43.1	101 28.1	104 28.9	360 50.0
Column Total	364 50.6	137 19.0	219 30.4	720 100.0

Table 41 Religiosity Classes

Sr. NO.	Low	Medium	High	Total
1. Kohat	51 14.2	211 58.6	98 27.2	360 50.0
2. Peshawar	35 9.7	172 47.8	153 42.5	360 50.0
Column Total	86 11.9	383 53.2	251 34.9	720 100.0

Table 42 Physical cost classes

Sr. No.	Low	Medium	High	Total
1. Kohat	272 75.6	37 10.3	51 14.2	360 50.0
2. Peshawar	267 74.2	51 14.2	42 11.7	360 50.0
Column Total	539 74.9	88 12.2	93 12.9	720 100.0

Table 43 Normative cost classes

Sr. No.	Low	Medium	High	Total
1. Kohat	273 75.8	51 14.2	36 10.0	360 50.0
2. Peshawar	210 58.3	111 30.8	39 10.8	360 50.0
Column Total	483 67.1	162 22.5	75 10.4	720 100.0

Table 44 Health provider attitude classes

Sr. No.	Low	Medium	High	Total
1. Kohat	132 36.7	130 36.1	98 27.2	360 50.0
2. Peshawar	137 38.1	162 45.0	61 16.9	360 50.0
Column Total	269 37.4	292 40.6	159 22.1	720 100.0

Table 45 Sex preference Classes

Sr. No.	Low	Medium	High	Total
1. Kohat	62 13.4 60.2	250 54.2 63.3	149 32.3 67.1	461 64.0
2. Peshawar	41 15.8 39.8	145 56.0 36.7	73 28.2 32.9	259 36.0
Column Total	103 14.3	395 54.9	222 30.8	720 100.0

Table 46 Which method you are using/ did use

Sr.No.	0	Pill	IUD	condom	Injection	Female sterilization	Rhythm	Another	Total
1. Kohat	164 45.6	97 26.9	18 5.0	12 3.3	42 11.7	27 7.5			360 50.0
2. Peshawar	86 23.9	57 15.8	46 12.8	40 11.1	76 21.1	52 14.4	2 .6	1 .3	360 50.0
Column Total	250 34.7	154 21.4	64 8.9	52 7.2	118 16.4	79 11.0	2 .3	1 .1	720 100.0

Table 47 Who decided for contraceptive use

Sr. No.	0	Yourself	Husband	Both	Other	Total
1. Kohat	163 45.3	51 14.2	16 4.4	80 22.2	50 13.9	360 50.0
2. Peshawar	102 28.3	22 6.1	40 11.1	183 50.8	13 3.6	360 50.0
Column Total	265 36.8	73 10.1	56 7.8	263 36.5	63 8.8	7230 100.0

Table 48 Did you have any side effects/complication?

Sr. no.	0	Yes	No	Total
1. Khot	162 45.0	66 18.3	132 36.7	360 50.0
2. Peshawar	86 23.9	38 10.6	236 62.6	360 50.0
Column Total	248 34.4	104 14.4	368 51.1	720 100.0

Table 49 If not using who decided

Sr. No.	0	Myself	Husband	Both	Mother in Law	Others	Total
1. Kohat	200 55.6	45 12.5	52 14.4	54 15.0	1 .3	8 2.2	360 50.0
2. Peshawar	120 33.3	48 13.3	119 33.1	67 18.6	2 .6	4 1.1	360 50.0
Column Total	320 44.4	93 12.9	171 23.8	121 16.8	3 .4	12 1.7	720 100.0

Table 50 What is particular reason for not using?

Sr. No	Healt	Infe	Irregular	Less children	Dangerous	Dislike	First	hazard	H-hazard	harmful	Total
1. kohat	312 86.7	3 .8	5 1.4		2 .6	2 .6	1 .3	1 .3	1 .3		360 50.0
2. Peshawar	275 76.4	5 1.4	9 2.5	1 .3	5 1.4	5 1.4			8 2.2	1 .3	360 50.0
Column Total	587 81.5	8 1.1	14 1.9	1 .1	7 1.0	7 1.0	1 .1	1 .1	9 1.3	1 .1	720 100.0

Table 51 What is particular reason for not using?

Sr. No	Health	Infection	irregular	It is	Less chi	Less chi	Less no	Mor chld	Nothing	Newly	Total
1. Kohat	1 .3				5 1.4	1 .3	1 .3				360 50.0
2. Peshawar		1 .3	1 .3	3 .8	2 .6			1 .3	1 .3	1 .3	360 50.0
Column Total	1 .1	1 .1	1 .1	3 .4	7 1.0	1 .1	1 .1	1 .1	1 .1	1 .1	720 100.0

Table 52 What is particular reason for not using?

Sr. No.	No child	No child	Pregnant	Religion	Sin	Un islam	Don't kno	More	h-hazard	harmful	Total
1. Kohat	2 .6	2 .6	1 .3	7 1.9	3 .8				1 .3		360 50.0
2. Peshawar		8 2.2		1 .3	1 .3	3 .8	2 .6	1 .3		1 .3	360 50.0
Column Total	2 .3	10 1.4	1 .1	8 1.1	4 .6	3 .4	2 .3	1 .1	1 .1	1 .1	720 100.0

Table 53 What is particular reason for not us

Sr.No.	It is si	Less chd	Less chi	no	No perms	No perms	No child	No need	Not allo	Total
1. Kohat		3 .8	1 .3		1 .3	1 .3	1 .3		2 .6	360 50.0
2. Peshawar	1 .3			18 5.0				2 .6	3 .8	360 50.0
Column Total	1 .1	3 .4	1 .1	18 2.5	1 .1	1 .1	1 .1	2 .3	5 .7	720 100.0

Table 54 Are u ready to change your behavior

Sr. no.	0	Yes	No	Total
1. Kohat	195 54.2	153 42.5	12 3.3	360 50.0
2. Peshawar	86 23.9	173 48.1	101 28.1	360 50.0
Column Total	281 39.0	326 45.3	113 15.7	720 100.0