



## KNOWLEDGE AND ATTITUDE; STIs, HIV, AIDS, RTIS, BREAST CANCER & REPRODUCTIVE HEALTH AMONG YOUNG FEMALES IN FAISALABAD DISTRICT, PAKISTAN

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**ABSTRACT...** Reproductive health is concerned with the people's ability to have a satisfying and safe sex life ensuring their capability to reproduce with a liberty of making a decision that if, when and how often they have to do so. In Pakistan, culturally females are married at a young age; become mothers and are at risk of health complications i.e. HIV/ STD and STI. There is less utilization of reproductive health services throughout Pakistan that ultimately affects health status of people at very young age. Most of the communities are not aware of reproductive health services, thus not availing these facilities. **Objective:** So the present study was designed to examine the females perceptions, attitude and practices about reproductive health services as well as to determine the level of their empowerment to take decisions and make choices regarding their own reproductive health besides determining the level of the quality, availability and accessibility of reproductive health services and to suggest some measures for policy makers to improve the reproductive health state of young mothers in district Faisalabad. **Study Design:** A sample of 600 young married females of age 15-32 years was selected through multistage sampling technique. **Period:** 2009. **Setting:** Rural and urban area of District Faisalabad. **Material and Method:** Uni-variate (frequency distribution and percentage) and Bi-variate analysis (Chi square and Gamma Statistics) was carried out. **Results:** Most (44.0%) of the respondents belonged to age category of 26-30 years; 35.5% were married for 18 years; 39.3% had been married for 5 years; 71.8% had primary and above level of education. Majority (65.9%) had up to Rs.10,000 per month income, 49.2% possessed 6-10 family members, 73.5% had at least 2 and above live children. Majority had the knowledge of reproductive health (67.7%) and HIV/AIDs (54.7%) whereas most of females had no knowledge of STIs (69.8%), RTIs (52.3%) and its development (51.8%). Most of the females experienced headache (62.8%), swelling of different body parts (61%) and back pain (62.7%) during their reproductive life. Bi-variate analysis showed highly significant relation among age at marriage, number of children, cultural hindrance and age of respondents vs. their reproductive health. **Conclusion:** Although most of the females were young & educated mothers with good reproductive health experience but still lacking in knowledge about STIs, HIV/AIDs, RTIs and breast cancer that is because of cultural hindrance, early age marriage pattern and male dominancy which indicates that we need to pay more attention towards female education and empowerment and decision making authority status at domestic level through community mobilization with the help of NGOs, Religious scholars and existing health system/ Health personnel's i.e. doctors/ nurses /LHV/ FHW.

**Key words:** Attitude, STI, RTIs, HIV, AIDs, Reproductive health Knowledge, Brest Cancer, Young Females,

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## INTRODUCTION

The young girls are forced into early marriage<sup>1,2,3,4,5,6,7,62</sup> and into sexual relations, which destroy the general as well as reproductive health and increase their risk of getting exposed to HIV/AIDS<sup>2,8,9</sup> besides minimizing their opportunities of

attending school.<sup>10,2,11,12,6,7,62</sup>

The women of reproductive age in developing countries suffer in shape of death or disability because of the complication during pregnancy and childbirth. According to an estimate held

in 2000, the death toll of women reached to 529,000 due to the complications of pregnancy and childbirth.<sup>2</sup> For every woman who dies, roughly, 20 more suffer serious injury or disability between 8 to 20 million a year. A mother's death can cause devastation for the children who are left behind falling a prey to poor health, poverty and exploitation without having motherly love and protection. While a mother's disability can dwarf all her contribution to the family as well as economy in her efforts put forward to fight against poverty<sup>2</sup>. Still about 16 million female adolescent of age 15-19 become mother and are at risk of health complications i.e. HIV/ STD and STI.<sup>13,5,6</sup> More precisely the objectives are:

1. To study the socio-economic characteristics of respondents and examine their perceptions, attitude and practices about reproductive health services in the study area;
2. Determine the level of women empowerment to take decisions and make choices regarding their own reproductive health;
3. Determine the level of the quality, availability and accessibility of reproductive health services; and suggest some measures for policy makers to improve the reproductive health state of young mothers.

## MATERIAL AND METHODS

This descriptive study was undertaken during 2009 in district Faisalabad, the 2<sup>nd</sup> most populated city of the Punjab province and 3<sup>rd</sup> of Pakistan. The study was projected to gain knowledge and information on attitudes and trends regarding utilization of reproductive health care in young females from eight towns {**Lyall Pur Town** (Taj Colony UC 208, Islam Nagar UC 209, and Hujwari town UC 212), **Iqbal Town** (Chak 224 Fatahwali UC 237, D Type Colony UC 253 and Samna Abad UC 260), **Madina Town** (Amin Town UC 203, Islamia Park UC 207, and Abdullah Pur UC 218), **Jinnah Town** (Chak 217 R.B. UC 274, Ghulam Muhammad Abad UC 279, and Raza Abad UC 282), **Jhumra Town** (Chak 157 R.B. UC 11), **Sumundari Town** (Chak 478 G.B UC 108 and Chak 475 G.B UC 109), **Jarana wala Town** (Chak 65 G.B. UC 37, Chak 237 G.B. UC 55, and Chak 24 G.B. UC 64), **Tandlianwala Town** (Chak

425 G.B UC 77, and Chak 293 G.B. Bhatay UC 79)} of District. Faisalabad. Total population of young females age (15-32) years, was 888532.<sup>14</sup> Respondents were selected from eight towns of city Dist. Faisalabad that has 289 Union Councils.

A sample of 600 young married females of age 15-32 years were selected through probability proportion to size. Multistage sampling technique was used. At the first stage 20 union councils were selected at random from eight towns of district Faisalabad proportionately. At the second stage, one village/ colony from selected each union council was selected randomly and at third stage 30 young mothers aged (15-32) were selected from each village/ colony through convenient sampling technique. Uni-variate (Frequency & Percentage) and bivariate (Pearson Chi-square & Gamma Statistics) analysis was carried out interpret the results.

## RESULTS AND DISCUSSION

### Socio-Economic Information of the Respondents

Socio-economic characteristics of the respondents like age, education, income, age at marriage/ marriage duration, household status and facilities play an important role in awareness, adoption and better reproductive health of females. The data relating to these aspects are presented and discussed as under:

#### Age of respondent/ her husband

Age is an important factor in determining the behavior of human being. It indicates the ability to do work and attitude of a person towards various social and economic aspects of life. Age refers to the number of years completed by an individual since her/his birth. Age factor is very important to influence one's behavior; it widens the vision of an individual through experience. The respondents were asked about their age and data in this regard are presented in Table-IV.I.

#### Education of respondent/ her husband

Education is a key to implementing social, attitudinal and behavioral changes<sup>15</sup>. Amongst

the users of antenatal care services (ANC), there appeared to have a change in their rhujaanaat (aspirations) which was being driven by a combination of increased awareness of the utility of ANC and a financial and social ability to access services. Women’s education emerged as most prominent factor leading to an appreciation of utility of ANC use<sup>16</sup>. Husband wife’s education also plays an important role in several demographic phenomena like desired family size, knowledge and maternal health care, consensus regarding decision-making etc (Murthi, 1995). Education was organized as single most powerful variable in unifying fertility behavior. Ensuring that girls who got education, had considerable impact on fertility behavior, including the postponement of marriage and first pregnancy, and the number of children (United Nations, 1974). Rich young females had more mass media exposure and school enrollment so because of this, they had more positive attitude to adopt reproductive health services as compare to poor and less educated ones. Education helps in achieving good health. Education and fertility have a close relationship. Well educated females have more health exposure and practice more family planning FP services for better reproductive health. Data regarding education of respondent and her husband are presented in Table-IV.I.

**Occupation of the respondent/ her husband**

Occupation plays a vital function in our lives, we have very apparent and responsive concept about which jobs are better and which are worse<sup>17</sup>. Occupation may be defined “as the specific activity with the market value which an individual continually pursue for the purpose of obtaining a steady flow of income (Ahmad 1958). According to Govt. of New Zealand<sup>18</sup> an occupation is a set of jobs that require the performance of similar or identical sets of tasks by employed people aged 15 years and over. An occupation is a set of tasks executed or planed to be carried out by an individual for an employer (as well as self-employment) in return for payment or profit. Data related to occupation of respondent and her husband is presented in Table-IV.I.

Age categories (years)	Respondents		Husbands	
	Freq.	%	Freq.	%
Up to 25	178	29.7	61	10.2
26-30	264	44.0	192	32.0
31 and above	158	26.3	347	57.8
Total	600	100.0	600	100.0
Mean age of the respondents = 27.81 Std. Dev.= 3.58 Mean age of the respondents' husband = 32.64 Std. Dev. = 5.49				
Education categories				
Illiterate	169	28.2	99	16.5
Primary	98	16.3	66	11.0
Middle	55	9.2	71	11.8
SSC	116	19.3	182	30.3
HSSC and above	162	27.0	182	30.3
Total	600	100.0	600	100.0
Years of schooling of the respondents = 7.07 Std. Dev. = 5.27 Years of schooling of the respondents' husbands = 8.58 Std. Dev. = 4.70				
Occupation	Respondents		Husbands	
	Freq.	%	Freq.	%
Housewife	572	95.3	-	-
Govt. service	8	1.3	76	12.7
Pvt. Service	13	2.2	191	31.8
Any other (own business, tailor, labor, driving etc.)	7	1.2	62	10.4
Agriculture/farming	-	-	79	13.2
Own business	-	-	192	32.0
Total	600	100.0	600	100.0

**Table-IV.I. Distribution of the respondents with respect to their and their husband's different socio-demographic aspects**

Above mentioned Table-IV.I depicts that most of the respondents (44.0%) belonged to age group of 26-30 years and 29.7% were up to 25 years old while 26.3% were 31 years and above. On the other hand majority of the respondents’ husbands (57.8%) was 31 years and above, 32.0% belonged to age group of 26-30 years and only 10.2% of the respondents’ husbands were up to 25 years old.

Youth is currently in focus through research studies in all social issues due to energetic part of population. The findings of comparative case study in two socio-economic classes (slum & posh) on mother health (aged 15-49) indicates that most of the respondents (i.e. 32 and 46.0%) were in the age group of 25 to 29 years,

respectively<sup>61</sup> and similarly present research also shows that 44% are almost in same age group. While in an urban area research study “Factors affecting mother and child health care in district Faisalabad, Mustafa<sup>19</sup> found that 44.5% females belonged to age group of 30 years.

Table-IV.I shows that 28.2% of the respondents were illiterate, 16.3% got primary education, 9.2% had passed middle level schooling, 19.3% had passed the level of SSC, 27.0% had got HSSC and above education. While 30.3% respondents’ husbands had got HSSC and above education, 30.3% passed SSC level of education, 11.8% had passed middle level schooling, 11.0% got primary education and only 16.5% were illiterate. Similar results were found in an urban area research study “factors affecting mother and infant health in district Faisalabad<sup>20</sup>. Mudasar<sup>21</sup> in her research study also showed the rural culture and education pattern of females. In rural areas parents still discourage the education of their daughters as shown in study findings that majority respondents (62.5%) was still illiterate. Rani<sup>22</sup> reported that in most countries, poor young females made early age marriage, restricted from schooling and gave birth to one child earlier than rich females.

Table-IV.I depicts that an overwhelming majority (95.3%) of the respondents was house wives, 1.3% were Govt. employees, 2.2% were attached with private service and only 1.2% were engaged in others (own business, tailor etc). It means that only a small fraction of the respondents was engaged in cash paid jobs while a vast majority was performing traditional duties like handling the domestic affairs, looking after their children and husband by staying at home. On the other hand with respect to occupation of respondents’ husband, most of them (32.0%) had their own business, 31.8% had private service, 13.2% were farmers, 12.7% were Govt. employees and remaining 10.4% were engaged in other occupations like labor, driving etc. Pakistani norm for women is to stay at home and look after children and husband. To join the labour market and mobility is restricted commonly for women. In an urban area research study Ahmed<sup>20</sup> found that

majority of the respondents (84%) were house wives while in another research study entitled “impact of maternal health services on mother and child health,” Arshad<sup>23</sup> identified similar results that majority (76.7%) of respondents were house wives and remaining 23.3% were working women. Mudasar<sup>21</sup> in her research study also showed the rural culture and female’s occupation. In rural areas parents still discourage the education of their daughters and attainment of any job/ service as shown in study findings that majority (87.5%) of the respondents were house wives. People think that women should remain in house and look after domestic affairs and care the children. Zafar *et al.*<sup>24</sup> concluded almost same result (85%). In a study in Nigeria Sunmola *et al.*<sup>25</sup> found that most of the persons (34.8%) were employed as civil servants whereas others were engaged in trade (18.3%) or farming (25.5%). While in an urban area research study Mustafa<sup>19</sup> found that 45% respondent’s husband were businessmen. Mudasar<sup>21</sup> in her research study also showed the rural culture and occupational pattern of males. In rural areas people do not pay attention on education so when a child reaches the age of earning, due to lack of education he cannot attain Govt. job and ultimately he has to adopt the occupation of labor or such other type in which there is no need of good education as 31.7% were laborers. While, in another research study Arshad<sup>23</sup> identified similar results that half of respondent’s husband (50.0%) were businessmen and out of the remaining, 34.7% were attached with private service.

### Age at Marriage

Age at marriage is an important factor in reproductive health issues. Higher fertility is related to young age and young females had more need of care regarding their reproductive health and their new born babies. It is considered very vital in the study of fertility and contraceptive behaviour, because it is more related to cultural than demographic aspects<sup>24</sup>. In Pakistani culture, sexual activities can be initiated after marriage and early age marriage is primary reason for that<sup>26, 27</sup>. Age at marriage varies within and among societies, depending upon the norms, values,

and belief about marriage, which a society possesses. In our society early age marriages are still prevailing. Mostly in rural areas women are not allowed to get secondary or higher education as declared by Naz *et al.* (2009). When they reach to their reproductive age, women were married in early ages because their parents are unaware of the problem of early marriages such as social, health and psychological problems and their impacts on the health of young women. The data in this regard are presented in Table IV.II.

**INCOME**

Income of the respondents is defined as the enumeration received periodically for work or services performed<sup>51</sup>. Standard income level fixed by the government of Pakistan is 8,000 rupees per month it is also called as poverty line. Income of a person shows his/ her life standard. Strong economic condition has positive effects on health of a person and poor economic status of respondents is an important factor to decrease the adoption of contraceptive methods. Due to poor socio-economic status women were avoiding to adopt contraceptive methods. Total family income level of the respondents from all sources is shows in Table IV.II.

**Family Members**

The true meaning of marriage is only fulfilled if the couple conceives and bears children. People consider their child to be a source of power and pride, and children act as insurance for their parents in old age. The most important aspect of bearing children is an insurance of family continuity. A rapid growth has occurred in population size, and it has not been possible to control this expansion even with active governmental intervention. Government has given priority to control family size and has fully funded family planning programme. Mostly women now have free access to different methods of contraception, provided be official health institutions<sup>28,29, 62</sup> and the total fertility rate of a Pakistani women is 3.8 children during her reproductive period that indicates mean size of a nuclear family will be 5-6 members<sup>29</sup>. The data regarding total number of family members are presented in Table-IV.II.

**Alive/ died Children**

Children are the future builder of every nation. Future of the nation depends upon the healthy and active population of country. Today’s children would turn up into healthy nation of tomorrow and contribute in the development of country<sup>30</sup>. The preference for male (son), in term of economic and social benefits as a contributor to the family income has a key position in Pakistani society. They attain more social status and less dependency as compare to daughter on their parents in Pakistani society. Desire for son is a factor of low contraceptive prevalence<sup>89</sup>. Rani<sup>22</sup> reported that most poor young females made marriage by age 18 and birth at least one child by the age 19 years. They were less informed about mistimed birth, and utilization of maternal health services and contraception. The data regarding birth and death of children are presented in Table-IV.II.

Age at marriage (in years)	Freq.	%
Upto 18	213	35.5
19-22	254	42.3
23 and above	133	22.2
Total	600	100.0
Mean age at marriage = 20.08 Std. Dev.= 3.15		
Duration of marriage (in years)	Freq.	%
1-5	236	39.3
6-10	203	33.8
11-15	129	21.5
16 and above	32	5.3
Total	600	100.0
Monthly family income (Rs.)	Freq.	%
Up to 5000	103	17.2
5001-10000	292	48.7
10001-15000	101	16.8
Above	104	17.3
Total	600	100.0
Mean Income = 11444.50 Std. Dev. 8457.36		
Total no. of persons in family	Freq.	%
1-5	208	34.7
6-10	295	49.2
11 and above	97	16.2
Total	600	100.0
Mean no. of family members=7.35 Std. Dev.=3.57		
Total live children	Freq.	%
1	159	26.5
2	147	24.5
3	129	21.5
4	94	15.7
5 and above	71	11.8
Mean live children= 2.74 Std. Dev.= 1.63		

**Table-IV.II. Distribution of the respondents according to their different socio-economic aspects**

Table-IV.II shows that most of the respondents (42.3%) had the age of 19-22 years at the time of marriage, 35.5% were up to 18 years old while 22.2% were 23 years and above when they were married. Total Fertility Rate (TFR) has strong ties with age at first marriage. Early age marriage promotes fertility trend (Aziz, 1994) and mostly people (69%) were married between 15-19 years of age<sup>7</sup>. This study shows a little bit difference because currently 42.3% females were married within age of 19-22 years and more than two-thirds (35.5% + 42.3% = 77.8%) of the females were married before the age of 22 years that is a sign of less knowledge about reproductive health and trend of early age female marriage in Pakistani society. Similar results were found in an urban area research study by Ahmed.<sup>20</sup> Mudasar<sup>21</sup> in her research study also showed the rural culture and marriage age pattern of females. In rural areas parents still married their daughters in early age as shown in study findings that majority respondents' age at marriage was 14-18 years. It was also noted that majority (72%) was married by the age of 20 and every woman was married by the age of 25 while the mean age at first marriage for contraceptive user slightly above 20 years.<sup>24,31</sup> While in another study in Nigeria, Shraddha and Bharti<sup>31</sup> found that most of respondents reported that they got married when they were 15-19 years old. Rani<sup>22</sup> reported similar results too. In India a study about "awareness among women towards aspects of family planning in Kullu district of Himachal Pradesh" Sharama *et al.*<sup>32</sup> interviewed the married women aged 18-30 years and found that 74% were married at the age between 18-25 years while, in another research study entitled "impact of maternal health services on mother and child health," Arshad<sup>23</sup> identified same results that slightly more than half of the respondents (51.3%) married at the age between 21-22 years and 38.7% married up to age of 20 years while only 8.7% married after 22 years of age.

Table-IV.II depicts that most of the respondents (39.3%) had 1-5 years duration of marriage at the time of interview, 33.8% had 6-10 years duration and 21.5% had 11-15 years duration while only 5.3% had 16 years and above duration of

marriage at the time of marriage. These results are contradictory to those of Sunmola *et al.*<sup>25</sup> who found that 92% of the respondents reported the duration of marriage between 1-6 years and small duration of marriage indicates less experience of reproductive issues. While in present study about 60% of the respondents had marriage duration of 6 years and above that indicates their sufficient experience of reproductive issues.

Table-IV.II shows that near about half (48.7%) of the respondents had monthly income of Rs.5001-10000, 17.3% had more than Rs.15000, 17.2% had up to Rs.5000 while remaining 16.8% earned Rs.10001-15000 per month from all sources. Data indicates that almost two thirds of the respondents (17.2%+48.7%=65.9%) had maximum monthly income up to Rs. 10000 that is quite inadequate for good survival and better living. According to Robert *et al.* (2003) about 15% of the population has such a low income that they are precluded from an adequate standard of living. This is directly related to malnutrition, illiteracy, and large family size, which create a self-perpetuating circle of events resulting in an overall increase in size of the population. Rani<sup>22</sup> reported that in most countries, poor young females made early marriage and they had less mass media exposure and more economic dependency than rich youth. Similar findings were made in an urban area research study in which Ahmed<sup>20</sup> found that 39% of the respondents had Rs.10000 or above monthly family income while, in another research study Arshad<sup>23</sup> identified similar results that majority of respondents (67.3%) had less than Rs.10000 per month family income from all sources and among them more than half earned less than Rs.5000 per month.

Table-IV.II shows that almost half (49.2%) of the respondents had 6-10 family members, 34.7% had 1-5 members and remaining 16.2% of the respondents had 11 and above persons as family members in their home. Similar results were shown by Govt. of Pak.<sup>29</sup> that still in Pakistan a nuclear family had more than five members (mean family size).

Table-IV.II shows that most of the respondents (26.5%) had 1 live child, 24.5% had 2 children, and 21.5% had 3, 15.7% had 4, while 11.8% had 5 and above live children. These results are similar to those of Desai and Tarozzi,<sup>33</sup> Sunmola *et al.*<sup>25</sup>, Ahmed<sup>20</sup>, Arshad<sup>23</sup> and Mudasar<sup>21</sup>. According to Desai and Tarozzi<sup>33</sup> mean desired family size was 4.83 in two regions (Oromia and Amhara) of Ethiopia where women married earlier, began childbearing sooner, had more birth and wanted to have more children. In a study in Nigeria, Sunmola *et al.*<sup>25</sup> found that the respondents from polygamous families openly explain sibling size range of between 0 and 25 and a huge majority (74.2%) of them had one to eight siblings whereas Ahmed<sup>20</sup> found that most (39%) of the respondents had 3-4 babies. while, in another research study Arshad<sup>23</sup> reported similar results that most (38.7%) of respondents had 3-4 children and 37.3% had 5 and above children while only 24.0% had 1-2 children. Mudasar<sup>21</sup> in her research study also showed similar findings that majority (59.2%) of respondents had 4-6 children. People think that more children are gift of Allah Almighty and source of power in rural settings. More members of family can earn more and had a prestige and social status in community.

**Sexually Transmitted Infections (STIs): HIV/AIDS**

Globally, millions of human beings of all ages and sex becomes the victim of sexually transmitted infections (STIs) and faces severe sickness, enduring disability, and passing way with severe psychological and health outcomes<sup>34</sup>. These are infections which mainly pass through from one person to another through sexual relation<sup>35</sup>. Above than 30 bacterial, parasites and viruses are discovered so far that can be sexually moved<sup>34,35</sup> and generally become the cause of Hepatitis B infection, syphilis and HIV/ AIDs. Numerous of these viruses and bacteria, especially HIV and syphilis, can be passed on to children from their mothers during childbirth and during blood or tissue transfer<sup>35</sup>. Awareness about STIs not only have an effect on females' responsible attitude towards high risk sexuality but also save them from health complications and have positive

effects on mother child health.<sup>36</sup> Data regarding knowledge about STIs/ HIV/ AIDs development and its protection measures are presented in Table-IV.III.

Knowledge about Sexually Transmitted Infections (STIs)	Freq.	%
Yes	181	30.2
No	419	69.8
<b>Total</b>	<b>600</b>	<b>100.0</b>
Knowledge about HIV/ AIDS		
Yes	328	54.7
No	272	45.3
<b>Total</b>	<b>600</b>	<b>100.0</b>
Knowledge about how STIs, HIV/AIDS develop?		
Yes	289	48.2
No	311	51.8
<b>Total</b>	<b>600</b>	<b>100.0</b>
Knowledge about protection measures	Yes	
Extra-marital sex	250	41.7
Use of non-reusable disposable syringe	335	55.8
Blood testing for blood donation	310	51.7
Use of new razor for shaving by barber	276	46.0

**Table-IV.III. Distribution of the respondents according to their knowledge about sexually transmitted infections (STIs)/ HIV/ AIDS/ their development and protection measures**

Table-IV.III indicates that majority (69.8%) of the respondents had no knowledge while 30.2% of the respondents had the knowledge of STIs. These results are similar to those of Afsar *et al.*<sup>37</sup> and Rahim and Sheikh<sup>38</sup>. Former studied the knowledge level of community about STIs in district Khairpur, Sindh, Pakistan and reported that situation was slightly better among health care providers as compare to common people. Community had less knowledge about STIs. While health care providers believed that the prevalence of STIs was high among community but community did not consider themselves at risk whereas Rahim and Sheikh<sup>38</sup> reported similar results in a cross-sectional survey of 20 villages in Lahore, where 400 adolescents and young adults were interviewed. They concluded that people were aware of STIs and perceived themselves safe from STIs due to cultural norms and media awareness.

Table-IV.III also indicates that majority (54.7%) of the respondents had knowledge about HIV/AIDS while 45.3% respondents had no knowledge about HIV/AIDS. Sudha *et al.*<sup>39</sup> conducted a cross-sectional study in Hyderabad, Andhra Pradesh and found that 80.63% (645/800) of the respondents were sketchily aware of HIV/AIDS, but had wrong perceptions about the mode of transmission or prevention while Sunmola *et al.*<sup>25</sup> found that huge majority (91.9%) had knowledge of HIV/AIDS in Niger State of Nigeria. Rani<sup>22</sup> reported that most of young poor females made early age marriage in most countries and had less knowledge about how to block sexual transmission of HIV/AIDS.

Data presented in Table-IV.III further indicate that a little more than half (51.8%) of the respondents had no knowledge about how STIs, HIV/AIDS develop while 48.2% of the respondents had the knowledge in this regard. Rani<sup>22</sup> reported that most young poor females made early age marriage in most countries and had less knowledge about how to control sexual transmission of HIV. Early age marriage restrains educational activities of young females and involves them in sexual activities that becomes cause of STIs and affects reproductive health of young females.

Table-IV.III also indicates the distribution of the respondents regarding their knowledge that how to save themselves from STIs or HIV/AIDS. In response to the knowledge of protective measures about STIs or HIV/AIDS i.e. extra-marital sex, majority of the respondents (58.3%) responded replied that they had no knowledge about it while 41.7% replied in positive. About use of non-reusable disposable syringe, majority (55.8%) of the respondents replied in positive while 44.2% had no knowledge about it. In response to blood testing for blood donation as a protection measure, slightly more than half (51.7%) of the respondents replied in positive while the remaining (48.3%) responded negatively because they did not know this measure of protection. Regarding use of new razor for shaving by barber as a protection measure about STIs or HIV/AIDS, majority (54.0%) of the respondents replied in

negative while 46.0% of the respondents admitted that they knew it. Sunmola *et al.*<sup>25</sup> found that most of the respondents believed that utilization of antibiotics before sex and use of clean toilet seats were preventive measure for STDs where as 27.2% of the respondents reported condom, 16% said avoidance of casual sex while 21% reported avoidance of heterosexual intercourse as preventive measures of HIV/AIDS. Similarly Rani<sup>22</sup> reported that most poor young females had less knowledge of preventive measures of sexual transmission of HIV/AIDS and were less aware of how to protect themselves from STIs.

### **Reproductive Tract Infections (RTIs)**

Reproductive tract infections are gradually more known as a severe universal health dilemma that has affected the individuals (woman and man), their relations and society. For better family planning, safe motherhood, and mother-child health and to prevent HIV, RTIs/ STIs and their follow-up are most important part of such programs,<sup>40</sup> while RTIs/ STIs are known as a community health problem that enfolds RH problems i.e. infertility, ectopic pregnancy, miscarriage and severe pelvic pain as well as risk of HIV. Women of developing countries are facing these problem especially.<sup>40,41</sup> Mostly young females suffer from these because of high rates of partner change and higher sexual behavior<sup>42,43</sup> and they have less discussion about protected sex and due to inadequate access to contraceptives, SRH services and education about sexuality and sex relationship.<sup>42,44</sup> It is necessary to make sure that young persons are supported and assisted by proper guidance about their health because they are future builder of every society (Ibid). RTIs are of three different sorts of infections i.e. infections of endogenous, iatrogenic and sexually transmitted infections (STIs) that affect reproductive health of females. Data regarding different aspects of RTIs is presented in Table IV.IV.



Knowledge about reproductive health	Freq.	%
Yes	412	68.7
No	188	31.3
Total	600	100.0
Knowledge about RTIs		
Yes	286	47.7
No	314	52.3
Total	600	100.0
Possi the genital area		
Consult to a doctor	364	60.7
Use any other tips	201	33.5
Do nothing	35	5.8
Total	600	100.0
Opinion regarding the causes of RTIs		
Little knowledge about pregnancy	271	45.2
Pre-natal negligence	59	9.8
Post partum complication	51	8.5
No knowledge about FP/ RH	219	36.5
Total	600	100.0
Experienced health problems during reproductive life		
Headache	377	62.8
Swelling on different body parts	366	61.0
Back pain	376	62.7
Fever	206	34.3
Heavy bleeding	68	11.3
Irregular menses	49	8.2
Breast problems	21	3.5
Miscarriage	108	18.0

**Table-IV.IV. Distribution of the respondents according to their perceived attitude towards different aspects of RTIs and reproductive health**

Table-IV.IV indicates the division of the respondents according to their knowledge about reproductive health and RTIs. In response to knowledge about reproductive health, majority (68.7%) of the respondents replied in positive while 31.3% responded in negative. In response to knowledge about RTIs, majority (52.3%) of the respondents responded in negative while 47.7% of the respondents had the knowledge about RTIs. Green Star<sup>45</sup> reported that in Pakistan, the extent of RTIs was not documented. Breast cancers and RTIs develop a prominent share of cancers in Pakistan. A study, which was made in five hospitals of four provinces, pointed out that 19% of females, faced cancers of gynecological reasons. Breast cancer was most common, accounting for 20% of all cases. Similarly Buckley *et al.*<sup>46</sup> found in their research study that young women, regardless of marital status, possessed consistently low levels of reproductive health knowledge during 1990 to 1999.

Data presented in Table-IV.IV describe that 60.7% of the respondents said that in case of itching or burning in the genital area they will consult a doctor, 33.5% said that they will use any other tips and remaining 5.8% replied that they will do nothing. These results are contradictory to those of Ranjani<sup>47</sup> who found in a cross-country study that RTIs and RH problems were not consulted by doctors and were not reported due to cultural barrier or due to lack of access to health center in many parts of world especially in developing countries. Therefore integrated RH facilities from multiple out-lets i.e. PHC/FP/MCH/RTI clinics, although implementation differ across the type of clinics, were desired by Pakistan, Sri-Lanka, China and Indonesian governments, to be provided. For instance; in Pakistan, BHU and RHU have better capacity to absorb other SRH services (STI/ RTI and abortion); than STI/RTI clinics are being integrated by PHC or MCH facilities. Major weakness to integration in these countries is that all preventive facilities are not in access at one window. Bangladesh (post reform period), India, Phillippines, Thailand, Vietnam, adopt one-window community clinic/ health personnel to provide facilities.

Table-IV.IV narrates that 45.2% of the respondents regarded little knowledge about pregnancy as a cause of RTIs, 36.5% of the respondents regarded no knowledge about family planning/ reproductive health as the cause while 9.8% of the respondents declared the pre-natal negligence as main cause of RTIs and 8.5% of the respondents replied that post partum complications were the causes of RTIs.

Data in Table-IV.IV also indicate that majority (62.8%) of the respondents had experienced headache in their reproductive life similarly majority (61.0%) of the respondents had experienced swelling on different body parts this problem in their reproductive life. Majority of the respondents (62.7%) had experienced back pain, 34.3% had experienced fever and only 11.3% of the respondents had faced heavy bleeding. Irregular menses were experienced by only 8.2% of the respondents. A small proportion

(3.5%) of the respondents experienced breast problems during their reproductive life and only 18% of the respondents faced miscarriage during their reproductive life. Data indicates that mostly females' had experienced headache, back pain and swelling on different body parts that may be because of less knowledge about reproductive health services. These results are in lines with those of Arshad<sup>23</sup> who reported that majority (70.0%) of respondents had headache problem during their reproductive life, 56.7% had back pain and 49.3 % experienced fever during their reproductive life.

**BREAST CANCER**

Globally, females are facing breast cancer that is one of the most common sorts of cancer. It is going to be increased in under develop as well as in developing countries.<sup>48,49</sup> In contrast to western nations, breast cancer among women of less developed countries tends to take place in premenopausal women of 35 and 45 years.<sup>50,51</sup> Awareness and understanding of breast cancer in developing countries is generally low.<sup>52,53,54,55</sup> Presently, WHO and many other international institutions such as The Breast Health Global Initiative (BHGI) initiated breast cancer awareness campaigns to enhance the females' knowledge.<sup>55,56</sup> Worldwide, educational level has shown a significant association with general breast cancer awareness<sup>54</sup>. Data regarding knowledge about breast cancer are presented in Table-IV.V.

Breast Cancer	Freq.	%
Has any health worker instructed you on self-palpation of breasts	109	18.2
Do you have knowledge about palpation of your breast for any lump	105	17.5

**Table-IV.V. Distribution of the respondents according to their knowledge about breast cancer**

Table-IV.V indicates that only 18.2% of the respondents replied that health worker had instructed them on self-palpation of breast. Only 17.5% of the respondents replied that they knew about the palpation of their breast for any lump because health personnel educated them in this regard. These results are similar to those

of Sambanje and Mafuvadze (2012) who found that majority of females in study area had a little knowledge about breast cancer. They had need of more awareness for better RH health.

**Cultural hindrance Vs Reproductive health  
Hypothesis: More the cultural hindrance, worse will be the reproductive health**

Cultural hindrance	Reproductive Health			Total
	Low	Medium	High	
No	192	135	225	552 (92.0%)
	34.8%	24.5%	40.8%	100.0%
Yes	33	4	11	48 (8.0%)
	68.8%	8.3%	22.9%	100.0%
Total	225	139	236	600 (100.0%)
	37.5%	23.2%	39.3%	100.0%

**Table-IV.VI. Association between cultural hindrance and reproductive health of female**

Chi-square= 22.11 d.f. = 2  
Significance (P) = .000\*\*  
Gamma = -.491 \*\*. Highly significant

Table-IV.VI indicates that the value of Chi-square is highly significant at 0.05% level of significance, which states an association between cultural hindrance and reproductive health of female. Gamma value indicates negative relationship between independent and dependent variables. Therefore, the hypothesis is accepted. These results are similar to those of Majumdar *et al.*<sup>57</sup> who narrated that the cultural constraints inhibit women from seeking health facilities. They further pointed out that high population growth rate and poor health call for complete health care services, but, unfortunately, health services do not reach most of the people of Pakistan. Partly because the training of doctors and nurses is lengthy and expensive, there is an acute shortage of health care providers, especially women. Although female health professionals are preferred for caring for women, cultural restrictions restrict women from seeking education and health amenities. Such is the multifaceted dilemma in the provision of primary health care in Pakistan.

**Number of children Vs Reproductive health  
Hypothesis: More the number of children, worse will be the reproductive health**

No. of children	Reproductive Health			Total
	Low	Medium	High	
1-2	91	67	148	306 (51.0%)
	29.7%	21.9%	48.4%	100.0%
3-4	93	53	77	223 (37.2%)
	41.7%	23.8%	34.5%	100.0%
5 and above	41	19	11	71 (11.8%)
	57.7%	26.8%	15.5%	100.0%
Total	225	139	236	600 (100.0%)
	37.5%	23.2%	39.3%	100.0%

**Table-IV.VII. Association between number of children and reproductive health of female**

Chi-square = 32.87 d.f. = 4 Significance (P) = .000\*\*  
 Gamma = -.320 \*\*. Highly significant

Table-IV.VII depicts that the value of Chi-square is highly significant at 0.05% level of significance, which states a strong association between no. of children and reproductive health of female. Gamma value indicates positive relationship between independent and dependent variables. Therefore, the hypothesis is accepted. These results are similar to those of Zafar<sup>58</sup> who narrated that want of male (son) is an important factor that increases the number of pregnancies and has worse affects on female reproductive health. He further said that the preference for male (son), in term of economic and social benefits as a contributor to the family household income has a key position in Pakistani society. They attain more social status and less dependency as compare to daughter on their parents in Pakistani society. Want for son is a factor of low contraceptive prevalence and low health of female. Less contraception utilization enhances the no. of pregnancies and ultimately a pregnancy increases the family size.

**Age at marriage Vs Reproductive health**  
**Hypothesis: More the age at marriage, better will be the reproductive health**

Age at marriage	Reproductive Health			Total
	Low	Medium	High	
Upto 18	106	55	52	213 (35.5%)
	49.8%	25.8%	24.4%	35.5%
19-22	91	61	102	254 (42.3%)
	35.8%	24.0%	40.2%	42.3%
23 and above	28	23	82	133 (22.2%)
	21.1%	17.3%	61.7%	22.2%
Total	225	139	236	600 (100.0%)
	37.5%	23.2%	39.3%	100.0%

**Table-IV.VIII. Association between age at marriage of the respondents and their reproductive health**

Chi-square = 49.98 d. f.= 4 Significance (P)= .000\*\*  
 Gamma = .377 \*\*. Highly significant

Table-IV.VIII narrates that the value of Chi-square is highly significant at 0.05% level of significance, which states strong relationship between age at marriage and reproductive health of female. Gamma value indicates positive relationship between independent and dependent variables. Therefore, the hypothesis is accepted. These results are similar to those of Mudassar<sup>21</sup>, Population Council<sup>59</sup> and Rabia<sup>60</sup>. Mudasar<sup>21</sup> has tested the hypothesis “higher the age at marriage, higher will be the receiving antenatal care services during pregnancy and found highly significant association between the variables with Chi-square value (10.27), level of significance (.006\*\*) and gamma value (.390). Female’s age at marriage is attached with her reproductive health. Early age marriage not only increases the chances of more pregnancies but also increases the chances of early first birth. Similarly, Rabia<sup>60</sup> tested the hypothesis “less will be the age at marriage more will be the number of pregnancies during reproductive life of female” and found it significant association between variables with Chi-square value (14.548), level of significance (.006\*\*) and gamma value (.394). She further said that younger age at marriage is highly associated with more numbers of pregnancies that ultimately affects females’ reproductive health. Population Council<sup>59</sup> reported that no matter where girls/ females live, girls who marry earlier to the age below 18 often lead lives marked by regular pregnancy, repeated childbearing, substandard social status, limited educational ability and social isolation.

**Age Vs Reproductive health**  
**Hypothesis: More the age of the respondents, better will be the reproductive health**

Age of the respondent	Reproductive Health			Total
	Low	Medium	High	
Up to 25	65	53	60	178 (29.7%)
	36.5%	29.8%	33.7%	100.0%
26-30	82	57	125	264 (44.0%)
	31.1%	21.6%	47.3%	100.0%
31 and above	78	29	51	158 (26.3%)
	49.4%	18.4%	32.3%	100.0%
Total	225	139	236	600 (100.0%)
	37.5%	23.2%	39.3%	100.0%

**Table-IV.IX. Association between age of the respondents and their reproductive health**

Chi-square= 21.86 d.f.= 4  
 Significance (P)= .000\*\*  
 Gamma = -.068 \*\*. Highly significant

Table-IV.IX indicates that the Chi-square value is highly significant at 0.05% level of significance, which states strong relationship between age of the respondents and reproductive health of female. Gamma value indicates positive relationship between independent and dependent variables. Therefore, the hypothesis is accepted. These results are similar to those of Ahmad<sup>20</sup>; Arshad<sup>23</sup>; Population Council<sup>59</sup> and Rabia<sup>60</sup>. Ahmed<sup>20</sup> viewed a prominent relationship between age of the respondents and utilization of antenatal care services. The Chi-square value (5.87) shows significant association. The level of significance is .053. The gamma value (-0.272) showed a positive relationship between the variables. Data clearly indicates that young females (age 26-35) had more antenatal care as compare to older females. Hypothesis young females will be more careful about their health as compare to old age is accepted so age at marriage should be increased because higher age at marriage for females control the high fertility and mortality rate, that results in better reproductive health of females while in another research study Arshad<sup>23</sup> identified the association with Chi-square value (44.76) along with high level of significance (.000\*\*) between age of respondents and utilization of reproductive health services and found same results that young women age (26-35 years) are more conscious than older to promote their reproductive health. Young females avail more medical facilities as compare to older women. They focus more attention on better utilization of medical facilities that ultimately support the women to become health. Similarly, Rabia<sup>60</sup> tested the hypothesis "less will be the age, more will be the number of pregnancies during reproductive life of female" and found significant association between variables. She further said that younger age of female is highly associated with early pregnancy. There is a chance to bear more numbers of pregnancies during reproductive span that ultimately affects females' health. Similarly Population Council<sup>59</sup>

reported that globally females who involve in sexual activities earlier to the age below 18 often face regular pregnancy, repeated childbearing, substandard social status, limited educational ability and social isolation and all these affect their health.

## CONCLUSION

Although most of the females were young & educated mothers with good reproductive health experience but still lacking in knowledge about STIs, HIV/AIDS, RTIs and breast cancer that is because of cultural hindrance, early age marriage pattern and male dominancy which indicates that we need to pay more attention towards female education and empowerment and decision making authority status at domestic level through community mobilization with the help of NGOs, Religious scholars and existing health system/ Health personnel's .i.e. doctors/ nurses /LHV/FHW.

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## REFERENCES






1. Gupta, G. R. **Child marriage in India**. ICRW Forum on child marriage in developing countries, forum presented at US Department of State, USA on dated September 14, 2005. 2005.
2. UNFPA. **Protecting mothers in risky situations: Assisting in emergencies**. Report on SafeMotherhood. UNFPA, 605, Third Avenue New York, 10158, USA. 2005.
3. Population Council. **Adolescents and youth in Pakistan 2001- 2002**. A National Representative Survey. p. 89-90. 2007. Available at: <http://www.popcouncil.org/pdfs/ayp0102>.
4. Population Council. **Maternal health education needed in Pakistan**. A Research Report on Safe Motherhood. Population Council, Islamabad, Pakistan. 2007.
5. Silverman, J. **Child brides, child mothers, changing the cycle of family abuse in India and South Asia**. Special Report women & health, Harvard Public Health Review. 2010.
6. WHO. **Early marriages, adolescent and young pregnancies**. World Health Organization, Sixty-Fifth World Health Assembly A65/13 Provisional Agenda Item 13.4, A65/13. 2012.
7. WHO. **Preventing early pregnancy and poor reproductive outcomes among adolescents in developing countries: What the evidence says**. World

- Health Organization, Department of Maternal, Newborn, Child and Adolescent Health, 20 Avenue Appia, 1211 Geneva 27, Switzerland. 2012.
8. UNICEF. **Child protection information sheets.** The Child Protection Section, Programme Division UNICEF, NY. 1-32. 2006.
  9. Shah, N., D. K. Rohra., S. Shuja., N. F. Liaqat., N. A. Solangi., K. Kumar., K. Kumar., K. L. Ahuja, S. I. Azam, and N. Khan. **Comparison of obstetric outcome among teenage and non-teenage mothers from three tertiary care hospitals of Sindh, Pakistan.** J. Pak. Med. Assoc; 61(10): 693-697. 2011.
  10. Gueorguieva, R. V., R. L. Carter, M. Ariet, J. Roth, C. S. Mahan and M. B. Resnick. **Effect of teenage pregnancy on educational disabilities in Kindergarten.** American Journal of Epidemiology; 154 (3): 212-220. 2001.
  11. Jain, G., V. Bisen, S. K. Singh and P. Jain. **Early marriage of girls as a barrier to their education.** International Journal of Advanced Engineering Technology; 2 (3): 193-198. 2011.
  12. Nguyen, M.C and Q. Wodon. **Measuring child marriage.** Economics Bulletin; 32 (1): 398-411. 2012.
  13. Population Council. **The adolescent experience in-depth: Using data to identify and reach the most vulnerable young people: Pakistan 2006/07.** Population Council, One Dag Hummarkjold Plaza, New York. 10017 USA. 2009.
  14. Govt. of Pak. Population Census Report. **Federal Bureau of Statistics.** Islamabad, Pakistan. 1998.
  15. Jamison, D. T., J. G. Breman, A. R. Measham, G. Alleyne, M. Claeson, D. B. Evans, P. Jha, A. Mills and P. Musgrove. **Priorities in Health.** The World Bank, 1818 H Street NW, Washington, D. C. 20433. 2006. www.worldbank.org
  16. Mumtaz, Z and S. M. Salway. **Gender, pregnancy and the uptake of antenatal care services in Pakistan.** Sociology of Health and Illness; 29 (1): 1-26. 2007.
  17. Stark, R. Sociology. Ninth internet (ed.). Chapter 16, **The interplay between education and occupation.** Thomson Learning, Inc. United States of America. ISBN 0-534-60939-2. p.450. 2004.
  18. Govt. of New Zealand. **Census 2013: 2013 Census information by variable.** Statistics House, The Boulevard, Harbour Quays, P. O. Box 2922, Wellington 6140, New Zealand. 2013. Retrieved from <http://www.stats.govt.nz/Census/2013-census/info-about-2013-census-data/information-by-variable/occupation.aspx> Dated 04-02-2014.
  19. Mustafa, M. **Factors affecting mother and child health care in district Faisalabad.** M.Sc. Population Science Thesis. Department of Rural Sociology, University of Agriculture, Faisalabad. 2008.
  20. Ahmed, S. **Factors affecting mother and infant health in district Faisalabad.** M. Sc. Population Science Thesis, Department of Rural Sociology, University of Agriculture, Faisalabad. 2008.
  21. Mudasar, S. **Impact of maternal health services on mother and child health in rural areas of Faisalabad.** M.Sc. Population Science Thesis. Department of Rural Sociology, University of Agriculture, Faisalabad. 2008.
  22. Rani. **Reproductive health and gender development: An international perspective, Directors,** Search, P.O. and Distribution Gadchiroli (Maharashtra). 442605, India. 2004.
  23. Arshad, N. **Impact of maternal health services on mother and child health.** M.Sc. Thesis. Department of Rural Sociology, University of Agriculture, Faisalabad. 2006.
  24. Zafar, M. I., F. Asif and S. Adil. **Religiosity as a factor of fertility and contraceptive behaviour in Pakistan.** Pakistan Journal of Applied Sciences; 3(3): 158-166. 2003.
  25. Sunmola, A. M., M. Dipeolu, S. Babalola and O. D. Adebayo. **Reproductive knowledge, sexual behaviour and contraceptive use among adolescents in Niger State of Nigeria.** African Journal of Reproductive Health;7(1): 37-48. 2003.
  26. Nayab, D. **Socio-cultural dynamics of adolescent reproductive health in Pakistan.** A paper presented in poster session of XXV International Population Conference, Tours, France, July 18-23, 2005, organized by International Union of the Scientific Study of Population (IUSSP). 2005.
  27. Nayab, D. **Socio-cultural dynamics of adolescent reproductive health in Pakistan.** 2009. Retrieve from: <http://iussp2005.princeton.edu/download.aspx?submissionId=51034>
  28. Robert, J. I. L., J. A. Oduma, S. Bassol-Mayagoitia, A. M. Bacha, and K. M. Grigor. **Regional and geographical variations in infertility: Effects of environmental, cultural, and socioeconomic factors.** Environmental Health Perspectives Supplements; 101(Supplement 2): 73-80. 1993.
  29. Govt. of Pak. **Pakistan economic survey 2012-13.** Government of Pakistan, Finance Division, Economic Adviser's Wing Islamabad. 2013. www.Finance.gov.pk

30. Govt. of Pak. 1998 District census Report of Pakistan. **Population Census Organization**, Statistics Division, Islamabad. 2001.
31. Shraddha, A., and B. M. Bhart.. **Reproductive health in urban slums**. The Journal of Obstetrics and Gynecology of India. *Obstet. Gynecol. India*; 56 (3): 225-257. 2006.
32. Sharma, B., S. Sharma and S. Nagar. **Awareness among women towards aspects of family planning in Kullu District of Himachal Pradesh**. *Journal of Social Sciences*; 11 (3): 249-251. 2005.
33. Desai, J. and A. Tarozzi. **Micro credit, family planning programs and contraceptive behaviour from a field experiment in Ethiopia**. *Demography*; 48(2): 749-782. 2011.
34. WHO. **Global incidence and prevalence of selected curable sexually transmitted infections – 2008**. WHO Press, World Health Organization, Dept. of Reproductive Health and Research, 20 Avenue Appia, 1211 Geneva 27, Switzerland. 2008.
35. WHO. **Sexually transmitted infections. World Health Organization, Dept. of Reproductive Health and Research, 20 Avenue Appia, 1211 Geneva 27, Switzerland. 2014**. Retrieved on dated 20-03-2014 from [http://www.who.int/topics/sexually\\_transmitted\\_infections/en/](http://www.who.int/topics/sexually_transmitted_infections/en/)
36. Owizy, S. O. **Awareness and attitude of undergraduates towards sexually transmitted infection (STIs). 2014**. Retrieved on dated 19-03-2014 from [http://www.academia.edu/2967741/AWARENESS\\_AND\\_ATTITUDE\\_OF\\_UNDERGRADUATES\\_TOWARDS\\_SEXUALLY\\_TRANSMITTED\\_INFECTIION\\_STI](http://www.academia.edu/2967741/AWARENESS_AND_ATTITUDE_OF_UNDERGRADUATES_TOWARDS_SEXUALLY_TRANSMITTED_INFECTIION_STI)
37. Afsar, H. A., M. A. Mahmood, N. Barny, S. Ali, M. M. Kadir and M. Bilgrami. **Community knowledge, attitude and practices regarding sexually transmitted infections in a rural district of Pakistan**. *Pakistan Journal of Medical Association*; 56 (1 Suppl 1):S50-54. 2006.
38. Rahim, S.T. and B.T. Sheikh, **Assessing knowledge. Exploring needs: A Reproductive Health Survey of Adolescents and young Adults in Pakistan**. Health Systems Division, Department of Community Health Sciences, Aga Khan University, Karachi, Pakistan. 2006. Babar.Shaikh@aku.edu
39. Sudha, R. T., D. T. Vijay and V. Lakishmi, **Awareness, Attitudes, and Beliefs of The General Public towards HIV/AIDS in Hyderabad: a Capital City from South India**. Department of Microbiology, Nizam's Institute of Medical Sciences, Hyderabad, Andhra Pradesh, India. 2005.
40. Bhawsar, R. D., J. P. Singh and A. Khanna. **Determinants of RTIs/STIs among women in Punjab and their health seeking behavior**. Indian Institute of Health management Research, near Sanganer Airport, Jaipur, India. 2001.
41. Aggarwal, A. K. and M. Duggal. **Knowledge of men and women about reproductive tract infections and AIDS in a rural area of north India: Impact of a community-based intervention**. *Journal of Health Population and Nutrition*; 22(4):413-419. 2004.
42. ECDC. **A comprehensive approach to HIV/STI prevention in the context of sexual health in the EU/EEA: ECDC technical report**. European Centre for Disease Prevention and Control (ECDC), Stockholm. 2013. Retrieved from [www.ecdc.europa.eu](http://www.ecdc.europa.eu)
43. Johns. B. C., A. S. Zeba and M. Haq. **Obstacles to contraceptive use in Pakistan: A study in Punjab**. Population Association of America. No.145. 2001.
44. IPPF. **Stand and deliver: sex, health and young people in the 21st century**. International Planned Parenthood Federation, European Network, London. 2009.
45. Green Star. **Advertising sexual and reproductive in Pakistan: The Touch Condom Song**. Five Rupees it's all about free of cost, Monday, June 08, 2009. Green Star. A non-profit, Non-Governmental Organization. Contact: [fiveupeesadminAT GooglegroupsDOTcom](mailto:fiveupeesadminAT GooglegroupsDOTcom)). 2009.
46. Buckley, C., J. Barrett and K. Adkins. **Reproductive health information for young women in Kazakhstan: Disparities in access by channel**. *Journal of Health Communication: International Perspective*; 13 (7): 681–697. 2008.
47. Ranjani, K. **Health Sector Reforms and Sexual Reproductive Health Services**. Lessons and Research Gaps Emerging from the Initiative for Sexual and Reproductive Rights in Health Reforms. 2005.
48. Fregene, A. and L. A. Newman. **Breast cancer in Sub-Saharan Africa: How does it relate to breast cancer in African-American women?** *Cancer*; 103:1540–1550. 2005.
49. Ly M, A. M, F. André, P. Callard, J. F. Bernaudin and D. A. Diallo. **Breast cancer in Sub-Saharan African women: review**. *Bull Cancer*; 98(7):797–806. 2011.
50. Elgaili, E. M., D. O. Abuidris, M. Rahman, A. M. Michalek and S. I. Mohammed. **Breast cancer burden in central Sudan**. *International Journal of Women Health*; 2:77–82. 2010.
51. Somdyala, N., D. Bradshaw, W. C. A. Gelderblom and D. M. Parkin. **Cancer incidence in a rural population**

- of South Africa, 1998-2002.** International Journal of Cancer; 127(10):2420–9. 2010.
52. Anderson, B. O, R. Shyyan, A. Eniu, R. A. Smith, C. H. Yip and N. S. Bese. **Breast cancer in limited-resource countries: an overview of the Breast Health Global Initiative guidelines.** Breast Journal (12 Suppl 1):S3–15. 2006.
53. Sambanje, M. N. and B. Mafuvadze. **Breast cancer knowledge and awareness among university students in Angola.** Pan African Medical Journal; 11: 70-75. 2012.
54. Matalqah, L., K. Radaideh, Z. M. Yusoff and A. Awaisu. **Predictors of breast cancer among women in a northern state of Malaysia: a matched case-control study.** Asian Pacific Journal of Cancer Prevention; 12(6):1549–1553. 2011.
55. Yip, C., E. Cazap, B. O. Anderson and K. L. Bright. **Breast cancer management in middle-resource countries (MRCs): Consensus statement from the Breast Health Global Initiative.** The Breast; 20:S12–S19. 2011.
56. Anderson, B. O, R. Shyyan, A. Eniu, R. A. Smith, C. H. Yip and N. S. Bese. **Breast cancer in limited-resource countries: an overview of the Breast Health Global Initiative guidelines.** Breast Journal (12 Suppl 1):S3–15. 2006.
57. Majumdar, B., Y. Amarsi and B. Carpio. **Pakistan’s community health workers.** Canadian Nurse; 93(5): 32-34. 1997.
58. Zafar, M. I. **Perception of male children: satisfaction and expectations.** Pakistan Journal of Applied Sciences; 2 (11): 2002.
59. Population Council. **In Pakistan, husbands as obstacles to contraceptive use: Studies in Family Planning.** Policy Research Division, Population Council, New York. 2006.E-mail: jcasterline@popcouncil.org
60. Rabia. **Determinants and consequences of female early marriages: A sociological investigation in rural areas of tehsil Dera Ghazi Khan.** M.Sc. Rural Sociology thesis. Collage of Agriculture, Dera Ghazi Khan, University of Agriculture, Faisalabad, Pakistan. 2012.
61. Akhlaq, M. **Effect of socio- economic and cultural factors on mother health: (A comparative case study in two socio- economic classes in Faisalabad city).** M.Sc. Population Science Thesis, Department of Rural Sociology, University of Agriculture, Faisalabad. 2006.
62. Tarar, M. A., S. Akhtar, M. I. Zafar and S. Muhammad. 2015. **Reproductive Health; Perceptions, attitudes and practices among young females in Faisalabad District, Pakistan.** Professional medical Journal; 22(1): 081-099. 2015.

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