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Prevalence of unplanned pregnancies and factors leading to it among married females visiting tertiary care hospital

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Abstract---Background: Pregnancy and its good outcome effect the health of mother and child. The unintended or unplanned pregnancy may lead to poor outcome of mother and child health. Although there is increase in acceptance of family planning but the prevalence of unintended pregnancy is increasing among pregnant females with or without marriage. In Pakistan certain studies have been done that also shows that the unintended pregnancy is more among pregnant females in their marital life. There are different causes that lead to unplanned pregnancy that depends upon geographical distribution, sociodemographic and Methodology: A cross sectional study was conducted in tertiary care hospital of Quetta during the months of June 2019 to May 2020. All the pregnant married females who were fulfilling the inclusion criteria were selected through convenient sample technique. Sociodemographic information was collected after the informed consent. The translated London measure of unintended

pregnancy (LMUP) tool was used to assess the unplanned pregnancy through scoring technique. Females whose score was between 0 to 3 were considered as having unplanned pregnancy. Data analysis was done on SPSS 21, where frequency of continues variables was determined and mean and standard deviation was calculated. Scoring of LMUP was categorized and it was presented in percentages. Where association of factors was determined by chi-square test with p value <0.05 was taken as level of significance. Results: The study showed mean age of pregnant women was 29.2. Among 363 pregnant females 90 (28.4%) had unintended pregnancy and majority 178(49%) of females had intended pregnancy. The LMUP score ranged from 0 to 12 with mean score 7.5, median 9 and standard deviation ± 3.55 . The frequency distribution of pregnancy status was (49%) planned, (26.2%) ambivalent and (24.8%) unplanned. Results showed that women who were illiterate, belong to lower socioeconomic status, multigravida had no association with LMUP score or risk of unplanned pregnancy. Only women who were using contraception methods had significant association with pregnancy status (0.032). Conclusion: The prevalence of unplanned pregnancy was low as compare to planned pregnancy among married pregnant females. Factors that were related to unplanned pregnancy vary according to sociodemographic status of pregnant females. religious factors.

Keywords---Unplanned or unintended pregnancies, risk factors, London measure of unintended pregnancy (LMUP).

Introduction

An unplanned pregnancy is the unwanted or mistimed pregnancy (that is, the pregnancy occurred earlier than desired). Unplanned pregnancies (pregnancies that are either unwanted or mistimed) are a significant public health concern worldwide (1). Around 210 million pregnancies that occur throughout the world each year, approx. 38% are unplanned, out of which 22% end in abortion.(2) Globally unplanned pregnancies are increasing and its outcome is poor as unwanted pregnancies end in abortion.

The impact of unplanned pregnancy is significantly affected by social and economic factors. It also causes physical and mental impairment among mothers and lack of acceptance. There are certain causes of unplanned pregnancies that might be the poor knowledge or incorrect use of contraception (3). Given the adverse impact of unintended pregnancies on maternal and neonatal morbidity and mortality and lack of available data, results of this study will give us idea about magnitude of problem and will be helpful in counseling of women for using contraceptives.

Pakistan is a country where contraceptive prevalence remains low as it is a developing country where utilization rate is very low. The unmet need for family planning is high (17%) that results into high fertility rate (3.2 births/woman) and large numbers of unintended pregnancies.(4) Annually about 2.25 million

abortions are conducted in Pakistan and the national abortion rate is 50 per 1000 women (15-49 years) . As abortion remains illegal, many of the procedures are undertaken in unsafe circumstances, leading to complications and adverse outcomes. Unsafe abortion also contributes to maternal mortality in Pakistan.(5)

Pregnancy status can be determined by evaluating planned and unplanned pregnancy. The scoring tool London measurement of unplanned pregnancy (LMUP) for determining status of pregnancy was developed and used after validity by many different countries.(6) The scoring is used to find those female who scored 0 to 3 had unplanned pregnancy, those who scored 4 to 9 had ambivalent pregnancy and those who scored 10 to 12 had planned pregnancy.(7)

Certain factors are related to unplanned pregnancy and its poor outcome. Most commonly it can be related to underutilization or insufficient health care delivery services in Pakistan. Perinatal care services cannot achieve adequate level without removing gender bias in education and knowledge, rural-urban disparities in healthcare service provision, and equitable distribution among rich and poor.(8) Other factors might include the sociodemographic factors, education, wealth status, multigravida, contraception and marital status. Acceptance of pregnancy is strongly related to the degree of planning to have pregnancy. Some females are reluctant to get pregnant initially but after conception they develop the acceptance of being pregnant.(9)

This study was designed to determine prevalence of unplanned pregnancy among married females in Pakistan. As very limited research is available on factors that are causing unintended pregnancy. It would also open future research gates for Muslim community acceptance of unplanned pregnancy.

Methodology:

A cross sectional study was conducted in tertiary care hospital in Out Patient Department of Gynae & Obs Civil hospital, Quetta from June 2019 to May 2020. By taking prevalence of unplanned pregnancy in previous study in Pakistan as 38.2%, power of test ($1-\beta$)80%, margin of error (d) 5%, the calculated sample size was 363 patients with the help of open epi online software for sample size calculation taking 95% confidence level.(10) All the pregnant females who fulfilled inclusion criteria were recruited in the study with consecutive sampling. The research instrument used for the study was a questionnaire with section A the personal data of the respondents, reproductive history and family planning knowledge and practices and Section B contains 6 questions from LMUP (London measure of unintended pregnancy).(11) The questionnaire was personally administered on the respondents by the researcher and later scored and interpreted. Where score 10-12 was planned pregnancy, 4-9 ambivalent and 0-3 was unplanned pregnancy. All the data was analyzed using SPSS version 20. Variables were grouped in two categories. Socio-demographic factors including age, residence, education, and family income, women related factors including age at marriage, gestational age, parity, birth interval, history of previous miscarriage or abortion, family planning knowledge and its use. Frequency of unplanned pregnancy was calculated by using data from all six questions of

questionnaire. Chi square test of significance was applied to determine the significant association between variables by using p value < 0.05 as significant.

Results:

The study showed mean age of pregnant women was 29.2. Among 363 pregnant females 90 (28.4%) had unintended pregnancy and majority 178(49%) of females had intended pregnancy. The characteristics of the study participants and bivariate analysis of sociodemographic and behavioral variables with pregnancy status is presented in table 1.

The LMUP score ranged from 0 to 12 with mean score 7.5, median 9 and standard deviation ± 3.55 . The frequency distribution of pregnancy status was (49%) planned, (26.2%) ambivalent and (24.8%) unplanned as shown in table 2. Figure 1 represent total distribution of London measure of unplanned pregnancy among pregnant females.

Results showed that women who were illiterate, belong to lower socioeconomic status, multigravida had no association with LMUP score or risk of unplanned pregnancy. Only women who were using contraception methods had significant association with pregnancy status (0.032).

Table 1: Characteristics of pregnant females in relation to pregnancy status.

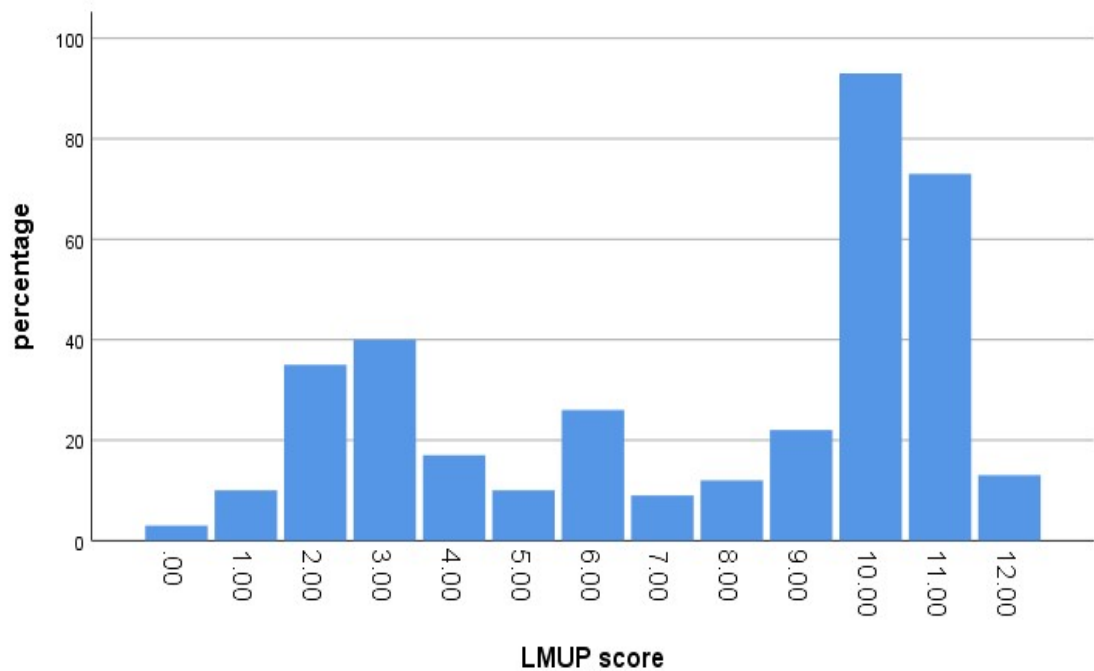
Characteristics	N	%	Pregnancy status			p- value
			Unplanned n (%)	Ambivalent n(%)	planned n(%)	
Age in years						0.240
14- 22	44	12.1	11	10	23	
23-31	180	49.5	47	45	88	
32-40	128	35.2	26	39	63	
41- 49	11	3.03	6	1	4	
Education status						0.305
illiterate	232	63.9	60	62	110	
primary	64	17.6	19	17	28	
Secondary and above	67	18.5	11	16	40	
Economic status						0.270
poor	248	68.3	48	72	128	
middle	89	24.5	31	16	42	
higher	26	7.2	11	07	08	
Number of						0.174

children						
none	12	3.3	3	2	7	
1-3	191	52.6	46	42	103	
>3	158	43.5	41	51	66	
Contraception usage						0.032
yes	172	47.4	50	50	72	
no	191	52.6	40	45	106	

Table 2: Frequency OF LMUP score among pregnant females.

LMUP SCORE	FREQUENCY	PERCENTAGE
Planned pregnancy (10-12)	178	49%
Ambivalent pregnancy (9-4)	95	26.2%
Unplanned pregnancy (3-0)	90	24.8%

Figure 1: percentage of pregnant females with LMUP score.



Discussion

This study was designed to estimate the prevalence and associated factors of unintended pregnancy in tertiary care hospital of Queta. The LMUP used for determining the unplanned pregnancy was structured for developed countries which was utilized in our study by translating it into national language. Previously this LMUP was used after validation in studies conducted in India.(12) The unintended pregnancy in our study was 24.8% where another study show 11.9% in India and 28.4% in Bangladesh, whereas the overall prevalence is 19.1% among the six South Asian countries.(10) Although there is a larger number of unintended pregnancy for South Asia than previously reported , But the rate of unintended pregnancy was still low in our study compared with developed regions with some significant variation.(13) Our study showed low rate of unintended pregnancy among women compared to a previous study. The possible reason may be most people lives in village territory, and they are not much aware of family planning. Secondly religious values are factors influencing intended pregnancies. Also, unavailability and less knowledge about contraceptive use, and inadequate health care service are responsible behind low unintended pregnancy. A research conducted in Pakistan found that women aged below 20 years had the highest risk of unintended pregnancy.(14) The prevalence and odds of unintended pregnancy of urban women were lower than rural among the six South Asian countries.(10) There is no association of economic status with unintended pregnancy, however, a previous study reported statistically significant association between unintended pregnancy and wealth index.(15) Several authors also reported that the wealth index of women was related with unintended pregnancy (16) and this study we found no relation. Rural women are more like to have lower wealth index and their knowledge about emergency contraceptive use is also little which may increase the prevalence rate of unintended pregnancy. (17) Although not determined through our study but religion might be influencing the acceptance and planning of intentional pregnancy. Overall, Hindu women had the highest risk of unintended pregnancy in South Asia than other religions,(18) and a coincide similar findings were reported in India. One of the main reasons was that Muslim women were likely to accept pregnancy as given by Allah.(19) So, more research is required for the religious believes that contributes to the prevalence of unintended pregnancy among women globally. Unlike to previous studies, this study confirmed the presence of lower unintended pregnancy among women with more children. Small family size effects the rate of unintended pregnancy. A few studies confirmed that unplanned pregnancy was present among women who had more children.(20) Women who intended to use contraceptive had unintended pregnancy. However, a few studies showed that in sub-Saharan African and central India contraceptive use effects to reduce the unplanned pregnancy. (21)

Conclusion

Our study concludes that the prevalence of unplanned pregnancy is low as compare to planned pregnancy among married females in Pakistan. The factor that is related to pregnancy status is significantly associated with contraception usage but not with level of education, parity or socioeconomic status of pregnant

females. Further research is required to determine the geographical and religious influence on unplanned pregnancy.

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