

## Original Article

# Determinants of Lack of Family Planning in Grand Multiparous Women

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## Abstract

Multiparity is a matter of great concern regarding the health of women as well as child. At the same time it has different determinants and socioeconomic backgrounds. **Objective:** To determine the determinants of lack of family planning in grand multiparous women. **Methods:** It is a descriptive cross sectional study including 271 GMP patients from DHQ Hospital Okara city. Mean age was  $35 \pm 10$  years. Data was collected with the help of questionnaire and evaluated and analyzed using SPSS version 24. Mean and standard deviation was calculated for quantitative data and frequency and percentages for qualitative data. To measure the determinants of lack of family planning, chi square test was used. P values less than and equal to 0.05 were taken as significant. **Results:** Most of women belong to rural area 172 (63.47%) and are Muslims 259 (95.5%). Most of the families lie under upper lower 149 (54.8%) and lower middle group of income 71 (26.1%). The reason of last pregnancy was desire for baby boy 66 (24.4%), then husband's wish 45 (16.6%) and so on. There is a good association of socioeconomic status and residence of head of family as  $p < 0.05$ , (Results are  $325.272^a$ ,  $df = 10$ ,  $p=0.000$ ). There is an association of Gravida and socioeconomic status of head of family as  $p < 0.05$ . ( $27.294$ ,  $df = 20$ ,  $p=.05$ ). There is a good association between reasons of last pregnancy and gravida as  $p < 0.05$ , ( $41.920$ ,  $df = 24$ ,  $p=0.001$ ). **Conclusions:** The grand multiparty is still very common in Okara Pakistan district, considering the easy availability of modern contraceptive methods but very few women are aware of it. The most popular explanation given for present pregnancy by grand multiparous women was an urge for baby boy followed by husband wish. Most of women are Muslims. Rural Women are more socioeconomically down and they have grander multiparty.

**Keywords:** Grand Multiparous, High risk pregnancy, Family Planning, Contraceptives, Socioeconomic status, Contraceptive prevalence rate. Intrauterine devices, Bilateral tubal ligation

## Introduction:

Parity is the number of live births borne by a woman, and may be categorised into primiparity (one live births), multiparity (more than one but less than five live births), [1] and grand multiparity which is also referred to as high parity (five or more live births) and also

considered as high risk pregnancy [2]. Grand-multiparity was first introduced by Bethel Solomon in 1934, who called it the "Dangerous Multipara (DM)". Grand-multiparity has been considered a risk factor for mother and fetus [3]. According to the research the incidence is

2-4% in developed countries where as very common in developing countries as high as 18.5%.

For several decades, grand multiparity has been viewed with great caution [4]. Grand multiparity has almost disappeared in western countries due to advancements in family planning. However, [5] FP is not welcome in some region because of cultural, religious or other social reasons [2]. Grand multiparity is more prevalent in developing countries [6] where health delivery systems are grossly inadequate to cope with rising demand for maternal and child health problems [4].

Family planning (FP) is a way of thinking and living that is adopted voluntarily, upon the basis of knowledge, attitudes and responsible decisions by individuals and couples, [7] in order to promote the health and welfare of the family group and thus contribute effectively to the social development of a country [8] FP also means respecting a woman's decision on getting or not getting pregnant. It also keeps women safe from going through the laborious process of child birth time and again [9].

Pakistan is currently the 6<sup>th</sup> most populated country in the world and going to move 4<sup>th</sup> most populated by 2050. Nearly 1 in every 4 births is unplanned in Pakistan. Pakistani women are having more children than they want, especially in rural areas. 50% married women want pregnancy spacing or to limit their family while 25% have unmet need of family planning. Though cheap even free contraceptives are available, they are not reaching the user. In Pakistan, myths and misconception about contraceptives lie with public as well as physician. Reasons by women who use no contraceptives are that they have left it to God (28%), opposition from husband, fear of side effects and fear of divorce and lack of knowledge. Only 5% have a perceived religious prohibition. Unfortunately in Pakistan, most doctors and nurses are also unaware about benefits of Contraceptive pills, so there is need to make sure that every graduating doctor and

nurse have knowledge and is competent to prescribe all women contraceptive pills after delivery or operation [10].

In Pakistan, FP services are provided by both private and public sectors. Private sector launched the family planning in 1953 while the public sector launched in 1966. Dedicating a special federal ministry to this sector, on 12<sup>th</sup> June 1990, the government launched a comprehensive family planning programme. It was a step in the right direction, especially for mothers and their reproductive health. Later in 1994, the government started family planning and family healthcare programme and provided these facilities to the people, especially those living in rural areas.

Government of Pakistan updated its commitment at the Family Planning Summit (FPS) in London UK on July 11 2017. To achieve Family Planning 2020 document Pakistan needs to increase 6.7million contraceptive users and we need to spend 2.5 US dollars on family planning programme as against 0.4 US dollars spent in 2016-2017. As per Family Planning 2020, Pakistan has plan to increase CPR up to 50%, and Provisional Ministry of Finance assure an increase in \$2.50 per capita that includes both private and public funding for Family Planning. (Family-planning-for-a-healthy-Pakistan)

There are so many reasons of lack of family planning in grand multiparous women in our society. Some are education of women, occupation, residence, knowledge about family planning, household wealth index [11], exposure to mass media communication, contraception's used in past, availability of contraceptive materials, (George et al., 2018) experience of previously used contraceptive methods, desire for more children, replacing child loss, high infant mortality rate, gender related (desire for baby boy), husband wish, child labor, remarried, unplanned/mistake pregnancy, pressure from in-laws, no reasons and others [12].

### Methods:

It is a descriptive cross sectional study including 271 GMP patients came to DHQ Hospital Okara

city, all were females and mean age was  $35 \pm 10$  years having 45 years as maximum and 25 years as minimum, as reproductive age. Data was collected with the help of questionnaire. Patients were interviewed for assessment of their reasons of lack of family planning. Data was evaluated and analyzed using SPSS version 24. Mean and standard deviation was calculated for quantitative data and for qualitative data frequency and percentages was calculated. To measure the determinants of lack of family planning, chi square test was used. P values less than and equal to 0.05 were taken as significant.

### Results:

Results show that most of women belong to rural area 172 (63.47%). Most of the women belongs to Muslims families 259 (95.5%) a very few belong to Non-muslim group 12 (4.9%). The socio-economic status of head of family in which most of families lies under upper lower 149 (54.8%) and lower middle group of income 71 (26.1%). the last delivery of child was at home

was more 220 (81) than at hospital 51 (19). The attendance of antenatal clinic in last pregnancy was satisfactory 201 (73.9) while 70 (25.7) are still not attended their antenatal clinic. Most of women heard about the family planning 211 (78) while very fewer used the contraception in last pregnancy 115 (43). Very few women used contraception in past 40 (15). The media of information for FP/ contraception was 144 (52%) from Hospital/ Community LHWs. Most of the reason of last pregnancy was desire for baby boy 66 (24.4%), then husband's wish 45 (16.6%) and so on. Most of the head of families were illiterate 73 (26.8%) and only 37 (13.6) were graduate. There is a good association of socioeconomic status and residence of head of family as  $p < 0.05$ . (Results are  $325.272^a$ ,  $df = 10$ ,  $p = 0.000$ ). There is an association of Gravida and socioeconomic status of head of family as  $p < 0.05$ . ( $27.294$ ,  $df = 20$ ,  $p = 0.05$ ). There is a good association between reasons of last pregnancy and gravida as  $p < 0.05$ , ( $41.920$ ,  $df = 24$ ,  $p = 0.001$ ).

| Scale Variables              | Mean  | Std. Deviation | Minimum | Maximum | Range |
|------------------------------|-------|----------------|---------|---------|-------|
| Age Of women (Years)         | 31.89 | 3.638          | 23      | 42      | 19    |
| Duration Of Marriage (Years) | 11.22 | 6.352          | 4       | 25      | 21    |

**Table 1:** Descriptive Statistics of scale variables like age and duration of marriage of women

| Demographic Variables | f (%)          |            |
|-----------------------|----------------|------------|
| tyResidence           | Rural          | 172(63.46) |
|                       | Urban          | 99(36.53)  |
| Gravida               | Type 1 gravida | 234 (86.3) |
|                       | Type 2 gravida | 19(7)      |
|                       | Type 3 gravida | 18(6.6)    |
| Religion              | Muslims        | 259(95.1)  |
|                       | Non-Muslims    | 12(4.9)    |

**Table 2:** Frequency distribution of demographic variables

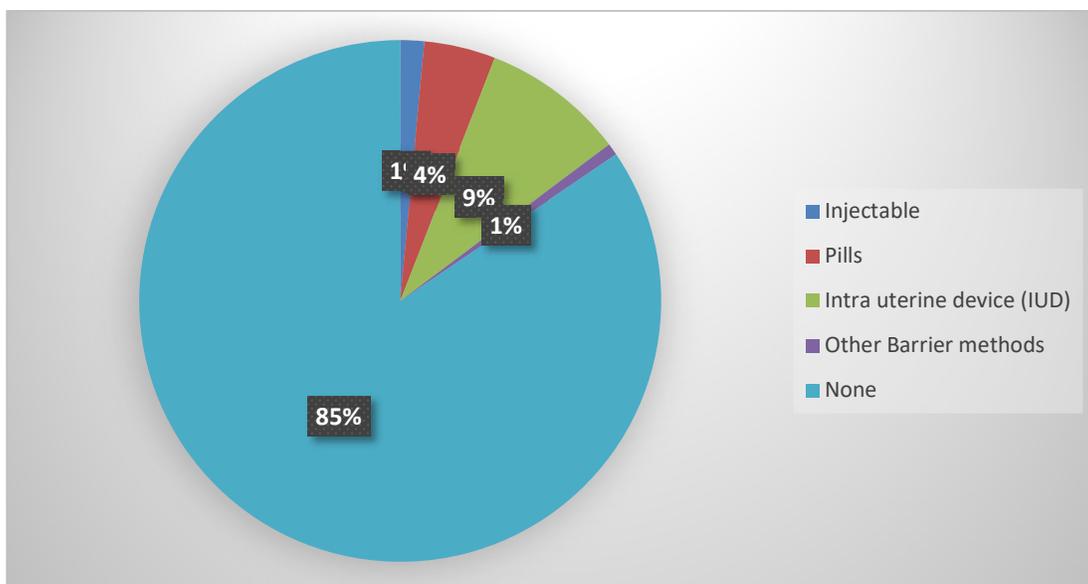


Figure 1: Methods of Contraceptive used

| Socio Economic Status | Frequency (%) |
|-----------------------|---------------|
| Upper                 | 1(.4)         |
| Upper Middle          | 40(14.7)      |
| Lower Middle          | 71(26.1)      |
| Upper Lower           | 149(54.8)     |
| Lower                 | 10(3.7)       |
| Total                 | 271(100)      |

Table 3: Socio economic Status of head of family members as per Kuppusswamy’s Scale

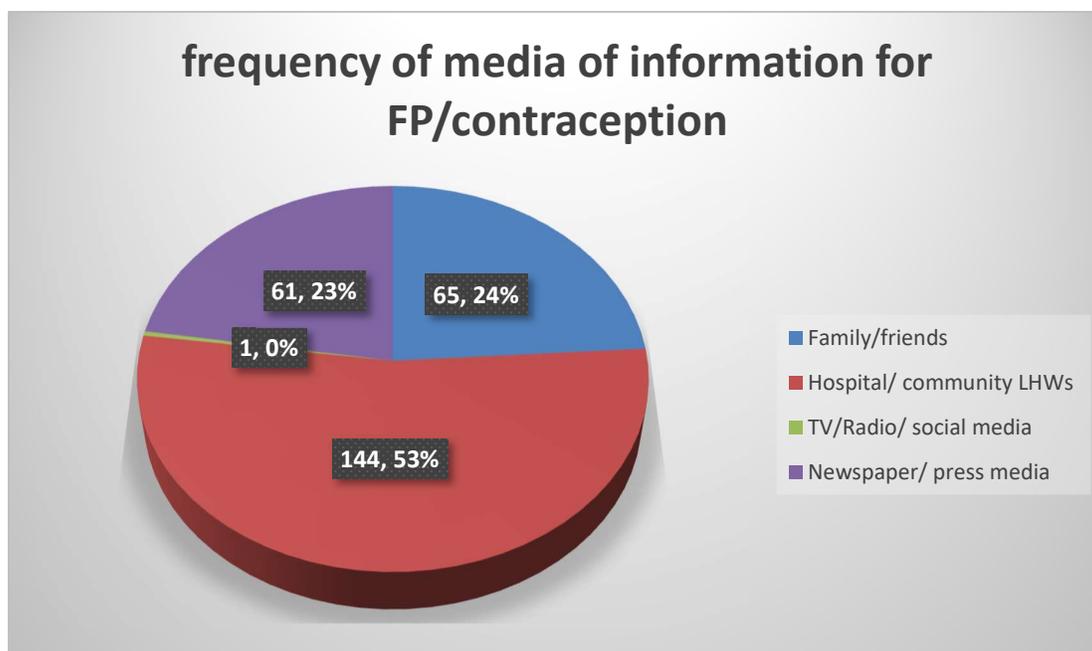
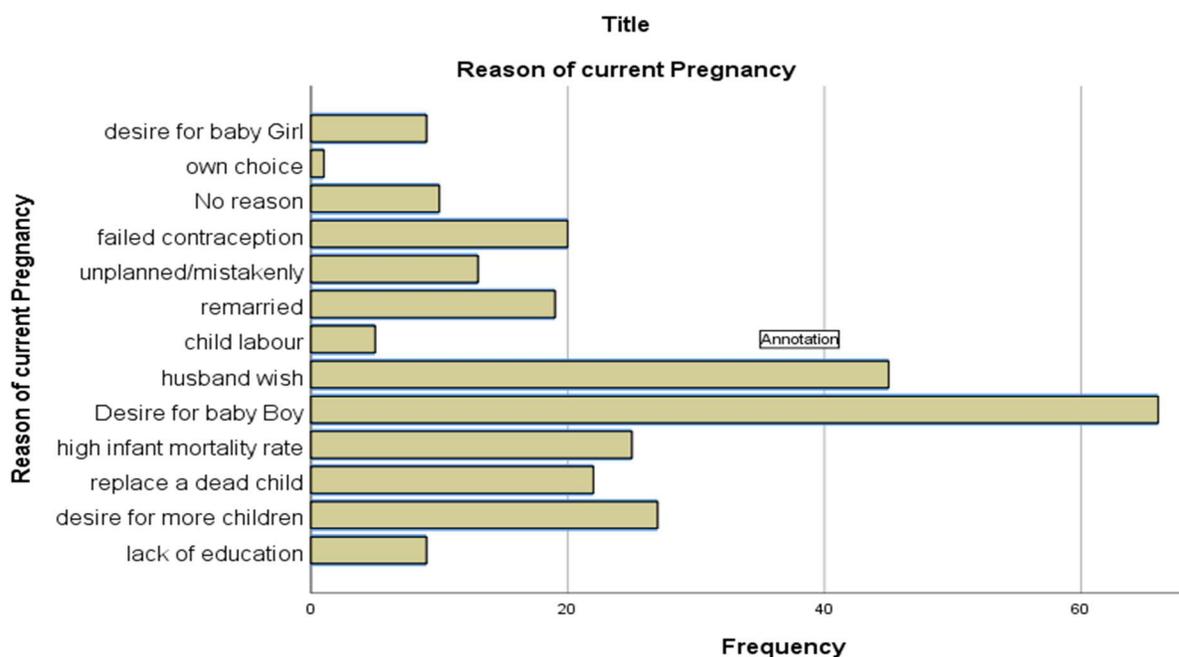


Figure 2: Frequency of media of information for FP/Contraception

| Reasons of last pregnancy  | Frequency (f) | Percentage (%) |
|----------------------------|---------------|----------------|
| Lack of education          | 9             | 3.3            |
| Desire for more children   | 27            | 10.0           |
| Replace a dead child       | 22            | 8.1            |
| High infant mortality rate | 25            | 9.2            |
| Desire for baby Boy        | 66            | 24.4           |
| Husband wish               | 45            | 16.6           |
| Child labour               | 5             | 1.8            |
| Remarried                  | 19            | 7.0            |
| Unplanned/mistakenly       | 13            | 4.8            |
| Failed contraception       | 20            | 7.4            |
| Desire for baby Girl       | 9             | 3.3            |
| Own choice                 | 1             | .4             |
| No reason                  | 10            | 3.7            |
| Total                      | 271           | 100.0          |

**Table 4:** For current Frequency of reasons pregnancy



**Figure 3:** Reason of Current Pregnancy

Figure 4 depicts about the methods of contraception used in the past which shows that 85% women were answered that they never used any method of contraception while only 8.8% women used Intrauterine devices 8.8% and so on. While 95 (69.9%) of the participants in the parent sample were expected to use contraceptives after end of the present

pregnancy and 40 (29.4%) were not expected to use contraceptives. While a study was conducted in Murtala Mohammed Specialist Hospital, Kano, on choices of contraceptive by grand multiparous women. The study was expressive cross-sectional and data were collected on socio-demographic characteristics and analyzed using Statistical Package for the

Social Sciences (SPSS) version 18. There were 219 respondents, the mean age was  $33.05 \pm 3.17$ , mean parity was  $6.48 \pm 1.83$ . 95.50% respondents were aware of contraceptive methods, 42% were currently using modern contraceptive methods. This research concluded that there was a strong understanding of current contraception procedures, but a low frequency of use due to a preference for further birth. Figure 5 depicts the last delivery done in the past from hospitals was 85% and from homes only 15%. It also depicts the media information for FP/contraception which were 52% from Hospital/ Community LHWs. The generalizability of the research could be limited by using hospital clients as participants of this study. However, it is possible that people who do not consult hospital care are more expected to have

a negative concept about contraceptives. However, in the Gambian context, more than 90% of pregnant women have gynecological treatments [15, 16]. In our study analysis of regression of reasons of last pregnancy and all other family planning and demographic variable upon Gravida of women. Which depicts that reasoned the variables are momentous prognostic for Gravida of women. Calculated values of  $R^2$  (16%) represents low variance in Gravida created by all reasons. The above stated prediction is significant at  $F(3.295)$  and  $p < .05$  illustrated in figure 6. The description of socio-economic status of head of family in our study in which most of families lies under upper lower 149 (54.8%) and lower middle group of income 71(26.1%).

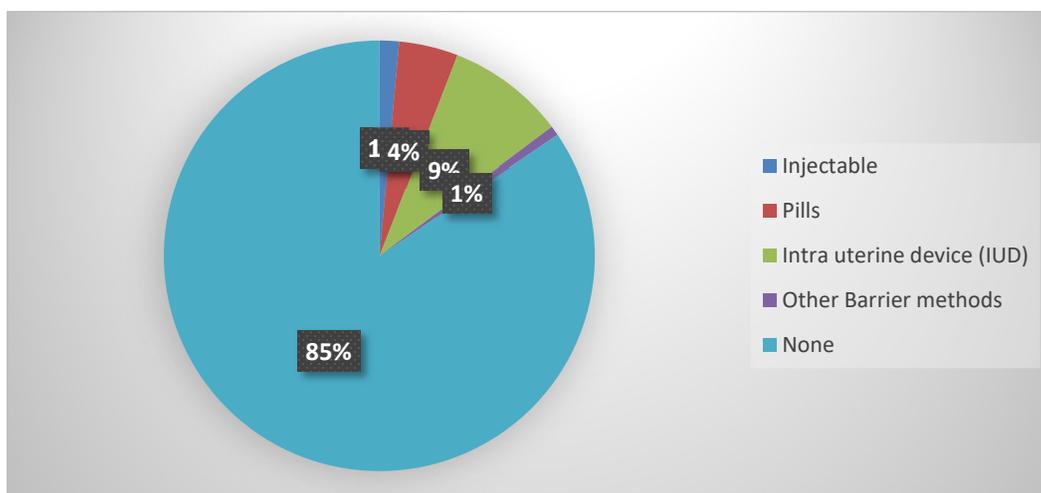


Figure 4: Methods of Contraceptive Used

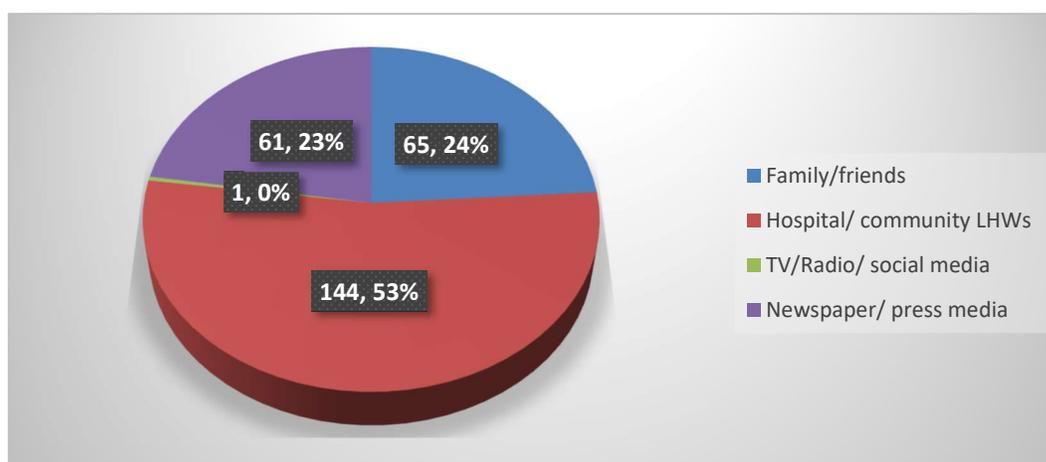
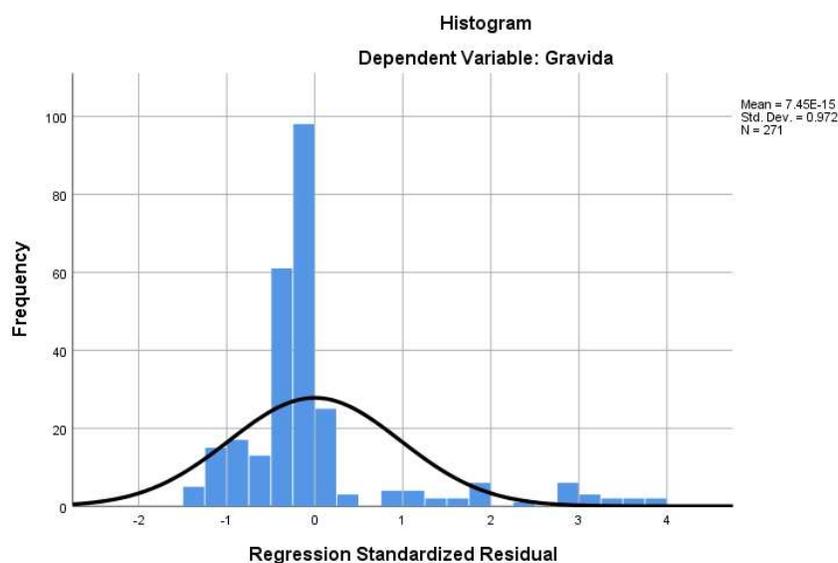


Figure 5: Frequency of Media of Information for FP/Contraception



**Figure 6:** Regression Standardized Residual

## Discussion:

Parity is the number of live births born to an individual woman which can be categorized as primiparity (one live birth), multiparity (more than one but less than five live births) and grand multiparity, which is often referred to as high parity (five or more live births) and assumed to be high risk of pregnancy. Grand multiparity (GMP) has been considered as a risk factor for mother and fetus. Lack of Family Planning (FP) and contraceptive use is the main reason of GMP, which is indirectly due to many religious and socioeconomic statuses and poverty. Failure to comprehend the importance of Family planning and contraceptives could lead to explanation that why GMP and mother and neonatal morbidity and mortality rate is still high in Pakistan.

In our study the descriptive statistics of women shows the mean and standard deviation of age of women and duration of marriage in years. In which age (years)  $31.89 \pm 3.638$  minimum age is 23 years and maximum age is 42 years and range of age was 19 years, while duration of marriage (years) was  $11.08 \pm 6.395$  minimum duration of marriage was 2 years while minimum duration of marriage was 4 years and maximum 25 and range was 21 years, while in my parent article A total of 136 grand-multiparous women were examined during the study period from a total of

514 prenatal bookings (prevalence of grand-multiparity = 26.5%). The mean age of the sample population was 35.5 years. (sd 4.3) [13]. In our study most of women belongs to rural area 172(63.47%), Type 1 gravida has 234(86.3%) leading to type 2 gravida that has 19(7%) and type 3 gravida 18(6.6%) . While most of the women belongs to Muslims families 259(95.5%) a very few belong to Non-Muslim group 12(4.9%): Gravida type 1 = G5+G6+G7, Gravida type 2= G8+G7+G8, Gravida type3= G9+G10+G11.

While in a study conducted in on the reasons for index pregnancy and contraceptive use among grand multiparous women and relates these to the Millennium Development Goals (MDG) in Antenatal clinic of the Department of Obstetrics and Gynecology of the University of Ilorin Teaching Hospital Ilorin, Nigeria. Matched case control study design was used. Subjects and controls were of equal number of age, education level and social status. There were 66 grand multiparous women, 30% had no formal education, while 66.7% were of low social status with 30.3% in social class IV and 36.4% in class V. contraceptive awareness and use were similar in subjects and control groups (90.9% vs. 93.9%) in both groups, the commonest contraceptive method was Depo-Provera. The mother's reasons for index pregnancy were

desire for more children (33.3%), previous perinatal deaths (28.8%) and desire for a specific gender (19.7%). According to this study majority of the subjects were poor, uneducated with desire for large families, poor contraceptive users and suffered previous poor perinatal outcome. This is an indicator of a huge gap in achieving Millennium Development Goal-5 to improve maternal health by reducing maternal mortality [14].

A study was conducted on reasons of current pregnancy amongst GMP Gambian women at Royal Victoria Teaching Hospital (RVTH), Banjul the Gambia. A structured pre-interviewer-based questionnaire-based cross-sectional study was conducted, 136 patients were interviewed. The occurrence rate of grand multiparity in their study was 26.5%. The mean age value of sample group was 35.5 years. The most common explanations given were the need for another child (22.8%), mistaken/unplanned pregnancy (18.4%), and the need to replace a deceased child (15.4). They were informed about the reasons of not using contraceptives. The reasons for refusing the use of contraceptions is fear of their side-effects (33.3%), refusal by partner (17.3%), and religious beliefs (16.0%).<sup>8</sup> In our study the the most of the reason of last pregnancy was desire for baby boy 66(24.4%), then husband's wish 45(16.6%) and so on. While in a study, the majority of the women 55.9% had no formal education and only 6.6% were having civil jobs. Majority of them were housewives (33.8%) and small traders (41.2%). These results are in line with previous research concerning poverty, inadequate education and discrimination as a driving factor for low contraceptive use, and "mistake" as a cause for index pregnancy as seen in this report [17].

In our study the frequency and percentages of characteristics of last delivery shows that attendance of antenatal clinics in last pregnancy was 73% from homes and only 25.7% were from hospitals and heard about family planning 78% at homes were only 22% at hospitals. In our study the frequency and percentages of the

level of education of head of family, which depict that 73(26.8%) families were illiterate and only 37(13.6) were graduate.

In this study chi-square results of socioeconomic status of head of family and residence of family. Which depicts that rural families of study population mostly lies under upper lower and lower middle class while urban families lies under upper lower and lower middle class followed by upper middle. There is a good association of socioeconomic status and residence of head of family as  $p < 0.05$ . (Results are 325.272<sup>a</sup>,  $df = 10$ ,  $p = 0.000$ ). The chi-square results of gravida and socio economic status of head of family. Which depicts that there is an association of Gravida and socioeconomic status of head of family as  $p < 0.05$ . The results of chi square test which is applied between the reasons of last pregnancy and gravida. It shows that there is a good association between reasons of last pregnancy and gravida as  $p < 0.05$ . While a study was conducted on grand multiparous women to see either grand multiparity is an independent predictor of adverse pregnancy outcomes or not. The study was conducted in Department of Obstetrics and Gynecology, Niger Delta University. Age matched case control study was performed. Selected maternal and fetal outcome variables were compared between high parity and low parity women. The statistical tests were done with statistical significance at  $< 0.05$ . This study concluded that the prevalence of grand multiparity was 2.52%, grand multiparity was associated with lower education, lower socioeconomic class, and abnormal lie, and no significant association was with increased adverse fetal and maternal outcomes in this study [18].

A study conducted in a rural mission hospital in Ebony state of Nigeria, on grand multiparous women who were still consulting and seeking treatment for grand multiparty. This was a qualitative study. Participants were interviewed at their second clinic visit for infertility management using a pre-tested interview guide.

The study lasted for eight months. The study was approved by the St Vincent's hospital management and ethical approval granted by the Research and Ethics Committee. Ten women and three men were interviewed. The women ranged in age from 29-37 years with a mean of  $32.2 \pm 5.3$  years. The mean parity was six. All had at least five live children. Only one of the participants completed primary level education while the rest either attempts primary education or had no education. They all belonged to low socioeconomic status. As per study, the main reasons of grand multiparty were male partner's wishes, desirability for male children, desire for more off springs, replacement of dead children, fulfillment of reproductive potentials and not being out done by co-spouses in a polygamous setting. This study concluded that grand multiparous women still consult for infertility in rural Nigeria. Desires for male children or replacement of dead child are one of the main reasons of such consultation [19]

### Conclusions:

In conclusion, the grand multiparty is still very common in Okara Pakistan district, considering the easy availability of modern contraceptive methods but very few women are aware of it. The most women belong to Type 1 Gravida (G5, G6 and G7). Most of family's lies under upper lower and lower middle group of income. Most of women deliver their last child at home while very few deliver at hospital. The most source of information was Hospital/ community LHWs. The most popular explanation given for present pregnancy by grand multiparous women was an urge for baby boy. This is also observed closely by those who have been pregnant because of the husband's wish. Most of women were Muslims. There was an association of socioeconomic status with multi gravida as the most of multiparity occurs among low income and lower middle-income families. Rural Women are more socio-economically deprived and they have more multiparity. However, the reasons of current pregnancy are associated with

Multiparity mostly desire for baby boy and husband's wish.

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