

Knowledge and Attitude Assessment on Institutional Delivery among Primi and Multigravidae Mothers

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Abstract: *Background of the study:* The study was undertaken to assess the 'knowledge and attitude on institutional delivery among primi and multigravidae mothers in selected rural areas, Bangalore'. The aim of the study is to compare the knowledge and attitude on institutional delivery between primi and multigravidae mothers. *Methodology:* survey approach and comparative descriptive design was used. Non-probability purposive sampling technique was used to select the sample that is 50 primigravidae and 50 multigravidae mothers at Hessarghatta village PHC and Chickbanawara village PHC, Bangalore. The tool used was structured knowledge questionnaire and 5 point Likert attitude scale to collect the data through structured interview schedule. The result of the study is the mean percentage of overall knowledge on institutional delivery of primi and multigravidae mothers is 56.2 and 65.67 respectively with the calculated t-value about 4.49 shows that multigravidae mothers have more knowledge than primigravidae mothers. The mean percentage of attitude level of primi and multigravidae mothers is 74.3 and 76.1 with the calculated t-value 1.15 which shows that both primi and multigravidae mothers have nearly equal attitude level as per statistical evidence. The correlation coefficient value of knowledge and attitude of primi and multigravidae mothers is +0.549 and +0.149 respectively which indicated there is a positive relationship exists. The education variable of primigravidae mothers shows statistical significant association with knowledge and attitude whereas in multigravidae mothers no statistical significant association was found with all the socio-demographic variables. **Conclusion:** The primigravidae mothers have lower knowledge than multigravidae mothers so there is a greater need to educate the primigravidae mothers through mass education programme and making institutional delivery as a choice, ultimately there will be reduction of maternal mortality and morbidity.

Keywords: Knowledge, Attitude, Primigravidae, Multigravidae, Institutional delivery

1. Introduction

Health is the precious possession of all human beings as it is an asset for an individual and community as well. Though health is related to individual and attained through individual efforts to quite an extent but, it also depends upon the concerted and co-operative efforts of people in the community to which the individuals belong. The health care providers including the large number of doctors and nurses, who claim to be promoters of health concentrate on making diagnosis and give therapeutic care to ill clients whereas the emphasis has been on freedom from disease and currently there is a shift in this trend i.e. increasing emphasis is on preventive and promotive aspects of health¹.

Evidence from across the world indicates that ill health disproportionately afflicts the poor, since the poor have little or no insurance against risks of ill health. The probability of ill health and its adverse effects is much more frequent and severe for those who are poor and this subgroup is mostly 'unreached' by the existing health care services. The poor have much higher levels of mortality, malnutrition and fertility than the rich, the poor-rich risk ratio is 2.5 for infant mortality, 2.8 for under five mortality, 1.7 for childhood underweight and 2 for total fertility rate. There is a glaring contrast in the health status of the rich and poor in India, as shown by the differences in the various health indicators².

In any community, mothers and children constitute a priority group. In sheer numbers, they comprise approximately 70% of the population in the developing countries. Mothers and children not only constitute a large group, but they are also a "vulnerable" or special-risk group as the problems affecting the health of the mothers and child is multifactor. The risk is connected with child-bearing and care of women and the

infant during postpartum period. Despite current efforts, the health of mothers and child still considered to be one of the most serious health problems affecting the community, particularly in the developing countries as it is evidenced that Pregnancy complications and child birth related complications are the major causes of death among women in their reproductive ages.

According to WHO about 495000 maternal deaths occurred globally during the year 2000 of these deaths about 243000 occurred in African countries, 20000 in America, 65000 in eastern Mediterranean, 3000 in western pacific countries. The life time chances of maternal death in the world as a whole is about 1 in 75 which varies from country to country. India is among those countries which have a very high maternal mortality rate³. As more than 100,000 women die each year due to complications of pregnancy and child birth, most of them within 24hrs after child birth. This indicates 20% of the global maternal deaths are from India. For every maternal death, there are 10 newborn deaths are occurring⁴.

As per Sample Registration System 2005, IMR in India was 58 and MMR was 301 whereas in Karnataka IMR was 50 per 1000 live births and MMR was 228 per 100,000 live birth (SRS 2001-2003)⁵. The causes for such mortality rates are socioeconomic status of the family, long distance to access health facility, illiteracy, home delivery, deliveries conducted by untrained dais, early age of conception, lack of utilization of health care services and other specific causes are anemia, hemorrhage, puerperal sepsis and toxemia, multiparity, birth spacing, high fertility age of the mother.

The National Health Policy 2001 recognizes that 'the morbidity and mortality levels in the country are still unacceptably high'. These unsatisfactory health indices are

in turn an indication that the access to public health services is nominal and health standards are grossly inadequate for the vulnerable sections of the society in the rural states⁶.

Most maternal and neonatal deaths take place at home, beyond the reach of health facilities⁷. Gultai et al, reported that 96% of deliveries were conducted at home in urban slums of Ludiana. Studies on few urban slums have indicated that despite availability of public hospitals up to 90% of deliveries in certain slums take place at home and antenatal care is minimal⁸. But the studies conducted in India show that majority of births more particularly in the rural areas are still delivered at home and India has a long way to achieve universalization of institutional delivery⁹.

The National Population Policy adopted by the Government of India in 2000 reiterates the Government's commitment to the safe motherhood programme within the wider context of reproductive health. Among the national socio-demographic goals for 2010 specified by the policy, several goals pertain to safe motherhood, namely that 80% of all deliveries should take place in institutions by 2010, 100% of home deliveries by trained personnel, to reduce MMR by 100 per 100,000 live births⁹.

Mother and family are among the key players in reduction of neonatal mortality and improvement in health status. The strength of any program lies in community mobilization and participation since the community participation is more of a challenge⁸.

1.1 Need for the Study

From the time immemorial, the community through its organized efforts has been organizing certain activities which pertain to improvement of environmental aspects, promotion of healthful living prevention of diseases, care of the sick at home. There has been an account of organized Government efforts to provide such services to prevent and control diseases, to promote health and efficiency of people at large in a defined community and the goal was to attain 'Health For All'¹. In our society, the pregnant women and her neonate form the vulnerable sector, more importantly in rural areas and in the urban slums so, in the past few decades a greater emphasis has been laid on rural health as 80% of our population lived in villages⁸.

India accounts for over 20% of global maternal and child deaths, and also records 20% of births world wide. Approximately 30 million women in India experience pregnancy annually and 27 million have live births, among these 136,000 maternal deaths occur annually. Major causes for such maternal deaths are excessive hemorrhage during child birth generally among deliveries at home, obstructed and prolonged labour, infection, unsafe abortions, disorders relating to high blood pressure and anemia. However most of the maternal deaths occur due to delays in care seeking which is the ultimate result of low social status of women, lack of awareness and knowledge at the house hold, inadequate resources to seek care, and poor access to quality delivery care and deliveries are oftenly conducted by untrained dais. Such maternal deaths can be brought down considerably by promoting 'safe motherhood' through

woman's programmes, increasing awareness of the community on safe motherhood through health care providers and engaging the media in highlighting the issue¹⁰.

Although various safe motherhood initiatives have been taken, yet decline in maternal mortality ratio in India is far from the desired level of 100 by 2012 set by the National Rural Health Mission (NRHM) and 109 by 2015 as per millennium development goals (MDG). Recent survey by Sample Registration System has estimated the level of MMR in India to be about 300 in 2001-2003. However, the level of MMR is above 400 in some of the states encompassing over 40% of India's population⁴. Pre conditions appear to have been early awareness of the magnitude of the problem, recognition that most maternal deaths are avoidable, and mobilization of professionals and the community. Still, there were considerable differences in the timing and speed of reduction of maternal mortality between countries, related to the way professionalization of delivery care was determined¹¹.

The report on maternal mortality rate compiled by WHO, UNECEF, UNFPA and the World Bank revealed that more women die in India during child birth than any where else in the world. Among 5.36 lakh women who died during pregnancy or after child birth in 2005 globally, India accounted for 1.17lakh. The MMR in India is 450 per 100,000 while in Bangladesh 570, Pakistan 320, China 45, Nepal 83 and in Srilanka 58 per 100,000 live births. Home births are still common in India accounting for almost 60% of recent births. NFHS-III found that 37% of deliveries were assisted by a traditional birth attendant, and 16% were delivered by a relative or other untrained person¹². Similarly in south India, Karnataka constantly holding the second place from 1999 to 2003 having 49% of institutional deliveries to change this various major programs are to be adopted. States having higher institutional deliveries have low maternal mortality rate and vice versa¹³.

In spite of the government's efforts to reach out to the pregnant mothers in all the parts of the country irrespective of rural or urban, & caste, creed, rich or the poor to provide effective maternal health care services to all at free or nominal charges, utilization of these services has been very low in India which is based on the evidence of institutional delivery rate of India which is as low as 34 percent during NFHS-II (199 -199) and this rate has only increased by 7 percent in NFHS-III (2005-2006). However one of the major goals of The National Health Policy (2000) & The National Health Policy (2002), the tenth five year plan (2002-2007) and the eleventh five year plan (2007-2012) was to achieve 80% of institutional deliveries so that considerably MMR can be reduced to 28 per 1000 live births and IMR can be reduced to 1 per 1000 live births in each state and all over India by the year 2012.

To achieve these goals government of India have adopted various national interventional programs through National Rural Health Mission (2005) in Karnataka like ASHA, SPANDANA, Janani Suraksha Yojana (Cash benefit for institutional delivery), Madilu Seva Yojana (Distribution of Mother & Baby Kit) and along with this 24 hours availability of maternal health services at the FRU's PHC's

& CHC's. But still a long way yet to reach the goals of The National Health Policy as the institutional delivery percentage all over India is 41 percent (NFHS-III, 2006) whereas states in south India, Kerala ranking first with 100% followed by Goa 93%, Tamil Nadu 90%, Andhra Pradesh 69% and Karnataka standing fourth with 67% so there is lot to be done to meet the maternal and child health needs to promote their health status and achieve the goals of National Health Policies and five year plans¹⁴.

Reduction of maternal mortality in developing countries today is hindered by limited awareness of the magnitude and manageability of the problem, and ill-informed professionalization. Strategies focusing on antenatal care and training traditional birth attendants. These strategies have by and large been ineffective and diverted attention from development of professional first line midwifery and second line hospital delivery care¹⁵.

A community health nurse has a major role in reducing the maternal and infant mortality, being one of the members of health care providers she/he comes in contact with the community at various situations like Home Visiting, Conducting Survey, Health Programmes like Family Planning Programmes, Immunization Programmes, Safe Motherhood Programmes, and various Nutritional Programmes. By understanding the importance of community participation, it is the responsibility of a nurse to exert to the extent that she/he gives the finest counseling and the latest, most correct information to the patients. Ultimately it is the moral responsibility of nurses to encourage mothers to participate in health education programmes, towards safe motherhood, antenatal care, and importance of institutional delivery.

The above facts and studies created an insight in the investigators mind that by improving the knowledge and positive attitude towards institutional delivery among primi and multigravidae mothers will reduce the incidence of MMR and IMR. The overall aim of the present study is to assess the level of knowledge and attitude towards institutional delivery between primi and multigravidae mothers.

1.2 Statement of the Problem

'A study to assess the knowledge and attitude on institutional delivery among primi and multigravidae mothers in selected rural areas, Bangalore.'

1.3 Objectives of the Study

- 1) To assess the knowledge on institutional delivery among primi and multigravidae mothers.
- 2) To assess the attitude on institutional delivery among primi and multigravidae mothers.
- 3) To compare the knowledge on institutional delivery between primi and multigravidae mothers.
- 4) To compare the attitude on institutional delivery between primi and multigravidae mothers.
- 5) To correlate the level of knowledge and attitude on institutional delivery among primi and multigravidae mother.

- 6) To associate the knowledge and attitude on institutional delivery among primi and multigravidae mothers with their selected demographic variable.

1.4 Hypotheses

RH₁ – There is a significant difference in knowledge on institutional delivery between primi and multigravidae mothers.

RH₂ – There is a significant difference in attitude on institutional delivery between primi and multigravidae mothers.

RH₃ - There is a significant relationship between knowledge and attitude on institutional delivery among primi and multigravidae mothers.

RH₄ – There is a significant association of knowledge on institutional delivery among primi and multigravidae mothers with their selected demographic variables.

RH₅ – There is a significant association of attitude on institutional delivery among primi and multigravidae mothers with their selected demographic variables.

2. Conceptual Framework

For the present study Rosen stock, Maiman and Beckers Health Belief Model (1978) was modified and adopted.

2.1 Methodology

a) Research Approach

In the present study a survey approach was used to assess the knowledge and attitude towards institutional delivery among primi and multigravidae mothers.

b) Research Design

Descriptive comparative design was adopted for the present study.

c) Setting of the Study

The present study was conducted in Hessarghatta village PHC and Chickbanawara village PHC, Bangalore.

d) Variables

Study variables

The study variables are knowledge and attitude on institutional delivery.

Extraneous variables

In the present study the extraneous variables include age, sex, occupation, marital status, religion, income of the family, type of family, decision maker in the family, distance of the health setting and source of information.

Population

The population of the present study comprises all primi and multigravidae mothers attending antenatal clinics of selected settings.

Sample

The sample of the present study includes primi and multigravidae mothers who fulfill the inclusion criteria.

Sample Size

The sample size of the present study is $N = 100$ ($n=50+n=50$) that is 50 primigravidae and 50 multigravidae mothers.

Sampling Technique

In the present study Non-probability purposive sampling technique was adopted to select the sample.

Data Analysis and Interpretation Of Results

Section A: Distribution of Knowledge Scores of Primi and Multigravidae Mothers Towards Institutional Deliveries

Table 1: Frequency and percentage distribution of level of Knowledge among primi and multigravidae mothers on institutional delivery
 $N=100$ [$n_1=50+n_2=50$]

Knowledge level	Primigravidae		Multigravidae	
	f	%	f	%
Inadequate (Below 50 % Score)	17	34.0	3	6.0
Moderate (51-75 % Score)	33	66.0	47	94.0
Adequate (Above 75 % Score)	0	0.0	0	0.0

The table-5.2 depicts that among the primigravidae mothers 33(66%) of them had moderate knowledge on institutional delivery and 17(34%) of them had inadequate knowledge. But in case of multigravidae mothers 47(94%) of them had moderate knowledge and 3(8%) of respondents had inadequate knowledge on institutional delivery and none of them had adequate knowledge.

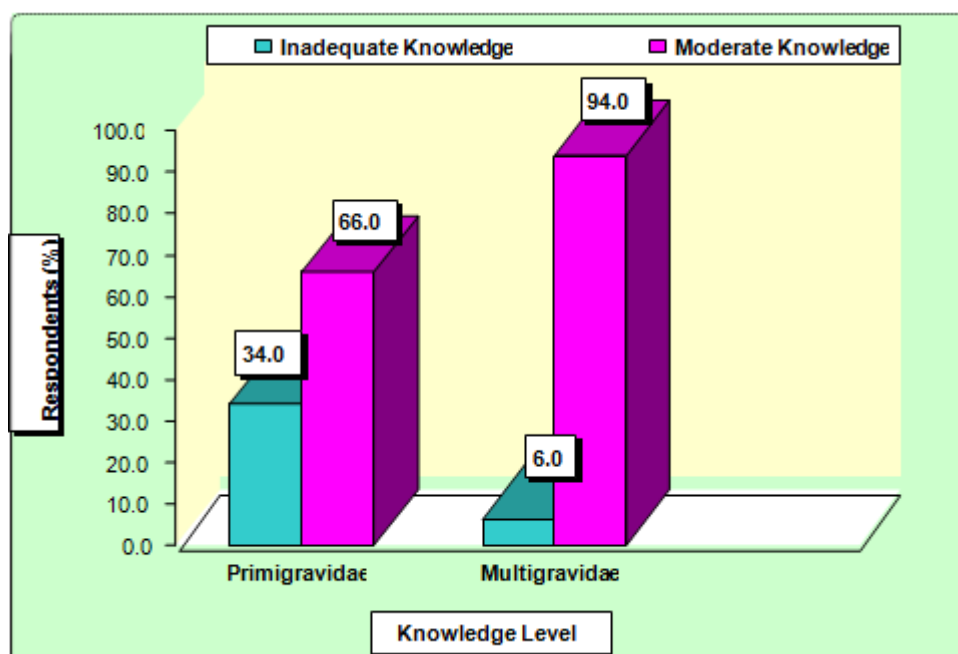


Figure 1: Knowledge of Primi and multigravidae mothers on Institutional Delivery

Section – B: Distribution of Attitude Scores of Primi and Multiugravidae Mothers on Institutional Delivery

Table 2: Frequency and percentage distribution of attitude level among primi and multigravidae mothers on institutional delivery
 $N=100$ [$n_1=50+n_2=50$]

Attitude level	Primigravidae		Multigravidae	
	f	%	f	%
Unfavorable (Below 50 % Score)	0	0.0	0	0.0
Moderately favorable (51-75 % Score)	27	54.0	18	36.0
Favorable (Above 75 % Score)	23	46.0	32	64.0

The table-3 depicts that among primigravidae mothers 27(54%) of respondents have moderately favourable attitude towards institutional delivery and 23(46%) of respondents have favourable attitude were as among multigravidae mothers 34(64%) of respondents have favourable attitude and 18(36%) of respondents have moderately favourable attitude on institutional delivery. But none of them had unfavourable attitude in both primi and multigravidae mothers.

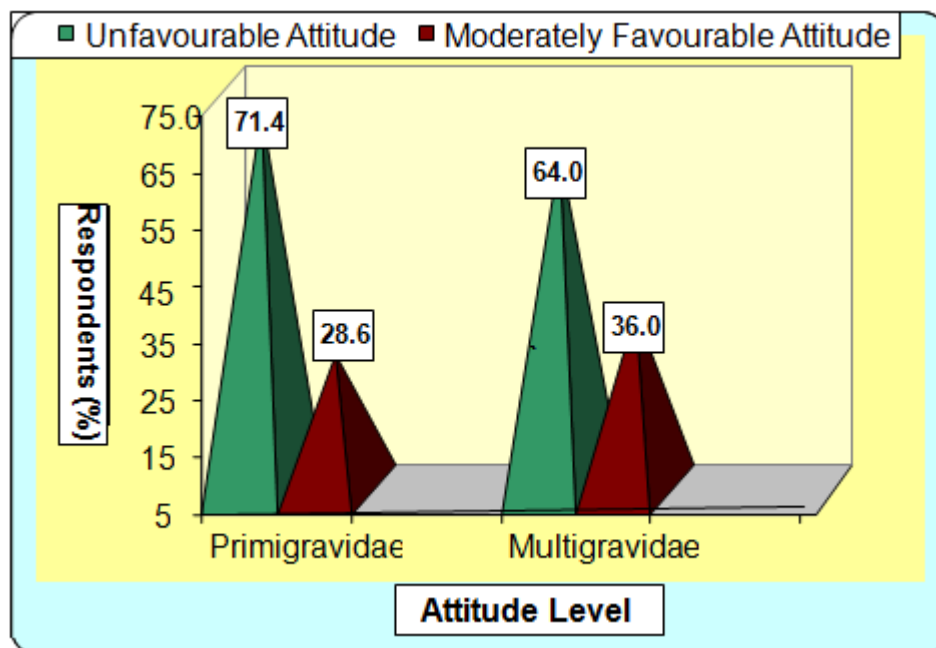


Figure 2: Attitude Level of Primi and multigravidae mothers on Institutional Delivery

Section C: Comparison of Knowledge and Attitude on Institutional Delivery Among Primi and Multigravidae Mothers.

Table 3: Comparison of knowledge on institutional delivery among primi and multigravidae mothers

N=100 [n₁=50+n₂=50]

Sample	Knowledge Level			Students t-test
	Mean	Mean(%)	SD	
Primigravidae	16.86	56.20	12.4	4.49*
Multigravidae	19.70	65.67	8.3	

* - Significant at p<0.05level

The table-4 indicates that the maximum mean percentage score obtained by multigravidae mothers is 65.67% with standard deviation of 8.3 and minimum mean percentage obtained by primigravidae mothers is 56.2% with standard deviation of 12.4, and the calculated t-value is 4.49 which shows that there is a significant difference in knowledge between primi and multigravidae mothers at the level of 0.05df.

Table 4: Comparison of attitude on institutional delivery among primi and multigravidae mothers

N=100 [n₁=50+n₂=50]

Sample	Attitude Level			Students t-test
	Mean	Mean (%)	SD	
Primigravidae	74.30	74.3	8.8	1.15
Multigravidae	76.10	76.1	6.7	

The table-5 shows that the maximum mean percentage score obtained by the multigravidae mothers is 76.3% with standard deviation of 8.8 and the mean percentage obtained by the primigravidae mothers is 74.3% with standard deviation of 6.7 and the calculated t-value is 1.15 which shows that there is no significant difference in attitude between primi and multigravidae mothers.

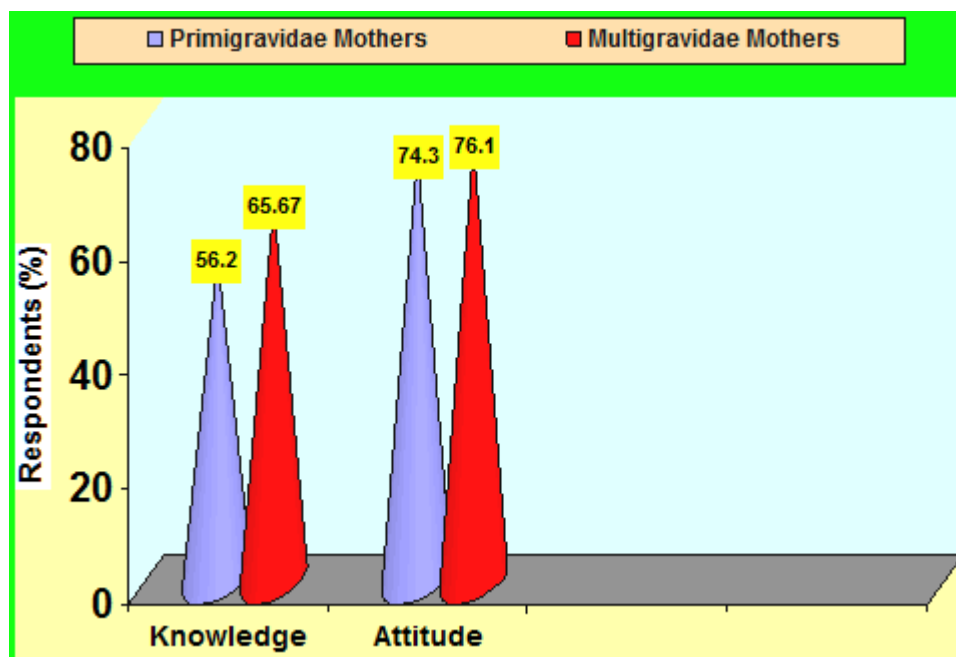


Figure 3: Comparison of knowledge and attitude on institutional delivery among primi and multigravidae mothers

Section – D: Correlation of Knowledge and Attitude on Institutional Delivery Among Primi and Multigravidae Mothers.

Table 5: Correlation of knowledge and attitude on institutional delivery among primi and multigravidae mothers.

N=100 [n₁=50+n₂=50]

Sample	Knowledge		Attitude		r - value
	Mean (%)	S.D	Mean (%)	S.D	
Primigravidae	56.20	12.4	74.3	8.8	+0.549
Multigravidae	65.67	8.3	76.1	6.7	+0.149

The table-6 shows that the mean percentage of knowledge of primigravidae mothers is 56.20 with standard deviation 12.4 and multigravidae mothers is 65.67 with standard deviation 8.3. The mean percentage of attitude of primigravidae mothers is 74.3 with standard deviation 8.8 and multigravidae mothers is 76.2 with standard deviation 6.7.

The correlation coefficient value of knowledge and attitude of primigravidae mothers is +0.549 and multigravidae mothers is +0.149 which shows that there is a positive relationship exists between knowledge and attitude of primi and multigravidae mothers on institutional delivery. This means more the knowledge better the attitude.

3. Discussion

The first objective was to assess the knowledge on institutional delivery among primi and multigravidae mothers;

The overall knowledge of the primi and multigravidae mothers reveals that 80(80%) of respondents had moderate knowledge and 20(20%) of respondents had inadequate knowledge on institutional delivery. In primigravidae mothers 33(66%) of them had moderate knowledge and 17(34%) of respondents had inadequate knowledge and in multigravidae mothers 47(94%) of respondents had moderate knowledge and 3(8%) of them had inadequate knowledge. As none of the respondents had adequate knowledge.

knowledge there is a need for imparting knowledge to all the mothers.

The findings of this study were consistent with the findings of the study conducted by El-Sherbini AF. El-Torky MA. Ashmawy AA et.al (2000) on assessment of knowledge and attitudes of expectant mothers in relation to delivery at health setting in assuit governorate. The study revealed that 25.5% of sample lacked basic and essential knowledge and 88.2% of sample had moderate knowledge in relation to institutional delivery³⁷.

The second objective was to assess the attitude on institutional delivery among primi and multigravidae mothers;

The overall attitude of primi and multigravidae mothers reveals that 55(55%) of respondents had favorable attitude and 45(45%) of respondents had moderately favorable attitude on institutional delivery. In primigravidae mothers 27(54%) of respondents had favorable attitude and 23(46%) of respondents have favorable attitude and in multigravidae mothers 34(64%) of respondents had favourable attitude and 18(36%) of respondents have moderately favourable attitude.

This shows that none of the respondents had unfavourable attitude towards institutional delivery.

The third objective was to compare the knowledge on institutional delivery between primi and multigravidae mothers;

The maximum mean percentage of 65.67 for knowledge on institutional delivery is obtained by multigravidae mothers and minimum mean percentage of 56.2 is obtained by primigravidae mothers and the calculated t-value is 4.49 which shows that there is a significant difference in knowledge between primi and multigravidae mothers which means multigravidae mothers have more knowledge compared to primigravidae mothers on institutional delivery. Hence the stated hypothesis RH₁ - There is a significant

difference in knowledge on institutional delivery between primi and multigravidae mothers is accepted.

The reason for this variation in knowledge may be due to the educational status, previous experiences and exposure to the similar situation. So there is a great deal for health care providers in educating the primigravidae mothers regarding institutional delivery through health education programmes.

The findings of the present study are consistent with the findings of Brabin BJ, Chimsuku L, Kazembe P et.al (1999) conducted an analysis of the knowledge on institutional delivery in pregnant women in rural Malawi-a basis for action. The study revealed that the mean (S.D) of knowledge was significantly lower in primigravidae (8.7) than in the multigravidae (9.2) with $P < 0.0001^{40}$.

The fourth objective was to compare the attitude on institutional delivery between primi and multigravidae mothers;

The mean percentage of 76.3% for attitude on institutional delivery is obtained by the multigravidae mothers and the mean percentage of 74.3% obtained by primigravidae mothers and the calculated t-value is 1.15 which shows that there is no significant difference in attitude on institutional delivery between primi and multigravidae mothers. Hence the stated hypothesis RH_2 – There is a significant difference in attitude on institutional delivery between primi and multigravidae mothers.is rejected.

The fifth objective was to correlate the level of knowledge and attitude on institutional delivery among primi and multigravidae mothers;

The correlation coefficient value of knowledge and attitude of primigravidae mothers is +0.549 and multigravidae mothers is +0.149 which shows that there is a positive relationship exists between knowledge and attitude of primi and multigravidae mothers on institutional delivery. This means more the knowledge better the attitude and vice versa. Hence the stated hypothesis RH_3 - There is a significant relationship between knowledge and attitude on institutional delivery among primi and multigravidae mothers. is accepted.

So it is evident that if the knowledge of the mothers is improved attitude also will improve which will ultimately improve the health care seeking behavior of choosing institutional delivery.

The sixth objective was to associate the knowledge and attitude on institutional delivery among primi and multigravidae mothers with their selected demographic variable

The analysis was done for association between knowledge and attitude with selected demographic variables of primi and multigravidae mothers using chi-square test.

The association of knowledge level of primi and multigravidae mothers with their selected demographic variables. The analysis revealed that there is a significant association was found with education at $p < 0.05$ level and no association could be found with other demographic variables for primigravidae mothers and no association could be found with all the demographic variables for multigravidae

mothers. Hence the stated hypothesis RH_4 – There is a significant association of knowledge on institutional delivery among primi and multigravidae mothers with their selected demographic is accepted only for education in primigravidae mothers and rejected for multigravidae mothers.

The association of attitude level of primi and multigravidae mothers with their selected demographic variables. The analysis revealed that in primigravidae mothers significant association was found with education and no significant association was found with all other demographic variables but in multigravidae mothers no significant association was found with all other demographic variables. Hence the stated hypothesis RH_5 – There is a significant association of attitude on institutional delivery among primi and multigravidae mothers with their selected demographic was accepted only for education in primigravidae mothers and rejected for multigravidae mothers.

4. Conclusion

The major findings of the study is it was found that among the primigravidae mothers 33(66%) of them had moderate knowledge and 17(34%) of them had inadequate knowledge. In multigravidae mothers 47(94%) of them had moderate knowledge and 3(8%) of them had inadequate knowledge.

Regarding attitude level of primi and multigravidae mothers on institutional delivery it was found that in primigravidae mothers 27(54%) of respondents had moderately favourable attitude and 23(46%) of respondents had favourable attitude. In multigravidae mothers 34(64%) of respondents have favourable attitude and 18(36%) of respondents have moderately favourable attitude and none of them had unfavourable attitude. The maximum mean percentage score obtained by multigravidae mothers is 65.67% and minimum mean percentage obtained by primigravidae mothers is 56.2% for knowledge on institutional delivery. So it can be said that multigravidae mothers have more knowledge compared to primigravidae mothers.

The **correlation coefficient** value of knowledge and attitude of primigravidae mothers is +0.549 and multigravidae mothers is +0.149 which shows that there is a positive relationship exists between knowledge and attitude of primi and multigravidae mothers on institutional delivery. This means more the knowledge better the attitude. The student researcher observed while collecting the data that the respondents where very much interested to learning about the benefits and advantages of institutional delivery.

5. Nursing Implications

The findings of the study can be used in the following ares of nursing practice

a) Nursing education

The nursing students should be made aware of their role in the present and the future year that creating awareness about health promotion and prevention of complications during pregnancy can bring down the maternal morbidity and mortality in the future year. The curriculum prepared should be able to prepare the students to educate the community

regarding institutional delivery. The community health nurse should periodically organize special health education programmes for the pregnant mothers regarding institutional delivery in the community.

b) Nursing Practice

Participate in the surveillance of MCH services that includes assessment of maternal mortality and morbidity in the community with the available resources. Participate in the health education programmes that aim to reduce maternal morbidity and mortality by promoting institutional delivery. Counseling and motivating the pregnant mothers of the community to choose institutional delivery and pamphlets and booklets can be distributed among the community members to create awareness towards institutional delivery.

c) Nursing administration

The nurse as a administrator can organize and conduct teaching programmes for community health nurses in order to enhance and upgrade their knowledge and keep them aware of the importance of institutional delivery in reducing the maternal morbidity and mortality and how to prevent them in future.

d) Nursing research

Research provides nurses credibility to influence decision making, policy and protocol formulation regarding reducing the maternal morbidity and mortality and prevention of complication during delivery. Findings of the present study suggest the educators and administrators should encourage nurses to read, discuss and conduct research studies so as to enable the community health nurses to make data based decisions rather than institutional decisions.

Suggestions

- 1) The public awareness regarding institutional delivery can be created through Mass Medias such as Newspapers, Radio, Magazines, and T V.
- 2) Regular guidance and counseling programmes can be initiated for the primigravidae mothers at all hospitals and community centres so that maternal mortality and morbidity can be reduced.

Recommendations

- 1) The study can be replicated on large samples in different settings.
- 2) A comparative study can be done between urban and rural expectant mothers.
- 3) A study to asses the effectiveness of structured teaching programme on benefits and advantages of institutional delivery for expectant mothers can be done.

6. Limitations

- 1) The study was limited to the mothers in Hessarghatta village PHC and Chickbanawara village PHC, Bangalore.
- 2) The investigator felt difficulty in collecting data from samples.
- 3) The study was limited to specific dimensions of knowledge and attitude of mothers.

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