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ORIGINAL ARTICLE

Reproductive/Safe Motherhood Knowledge of Nurses in a Tertiary Care Hospital, Lahore

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ABSTRACT

Background: According to WHO the reproductive health is defined as "a state of complete physical, mental, social well-being, and not merely the absence of disease or infirmity, reproductive health addresses the reproductive processes, functions and systems at all stages of life. It is estimated that 585,000 women die each year worldwide due to the complications from pregnancy, child birth, abortions and other conditions. The incidence of morbidity, mortality due to unwanted pregnancy and Sexually Transmitted Diseases (STD) are increasing day by day in the whole world.

Objectives: To explore the knowledge of nurses regarding reproductive health and safe motherhood and to identify gaps in their knowledge.

Place and Period of Study: Lahore General Hospital Lahore from 11th July 2013 to 10th August 2013.

Study Design: Cross-sectional descriptive study.

Methodology: One hundred and eighty eight nurses were approached; time and date were decided according to their comfort. Interview was conducted after taking informed verbal consent from every nurse confidentiality and privacy was maintained.

Results: There were 64 (34%) between 21-25 years, 90 (47.9%) between 26-30 years, 29 (15.5%) between 31-35 years and 5 (2.6%) between 36-40 years. One hundred and sixty four (87.2%) nurses having basic education of BSc Nursing and 24 (12.8%) had done additional diplomas. 74 (39.3%) were having the knowledge of less than 3 or 3 steps of newborn care, while 53 (28.3%) were having the knowledge of greater than 3 steps of newborn care and 61 (32.4%) told all the steps of newborn care. There were only 49 (26.1%) who knew when bath to be given to a newborn, while 99 (52.7%) told that bath to be given within 8-12 hours and 40 (21.3%) narrated that bath to be given immediately. There were 135 (82.3%) nurses who did B.Sc nursing and they were not having the knowledge of RH definition while 13 (54.2%) nurses who did BSc Nursing with additional diplomas were not able to tell about the RH definition. There were 29 (17.7%) nurses with BSc, who had the knowledge of RH definition while 11 (45.8%) nurses who did B.Sc nursing with diplomas, had knowledge of RH definition. This shows a strong association that nurses with additional diplomas had better knowledge than those who did only BSc nursing.

Conclusion: Overall the nurses were deficient in their knowledge and they were very vague about the knowledge and they did no refresher training courses.

Keywords: Nurses knowledge, Reproductive health, Safe motherhood, Breast feeding, Newborn care

INTRODUCTION

According to WHO the reproductive health is defined as "a state of complete physical, mental, social well-being, and not merely the absence of disease or infirmity, reproductive health addresses the reproductive processes, functions and systems at all stages of life".[1] It is estimated that 585,000 women die each year worldwide due to the complications from pregnancy, child birth, abortions and other conditions. The incidence of morbidity, mortality due to unwanted pregnancy and sexually transmitted diseases (STD) are increasing day by day in the whole world.[2] In 2010, countries with highest maternal mortality rates were Chad (1,100), Somalia (1,000), Central African Republic, (890), Sierra Leone (890) and Burundi (800).[3] Lowest rates included Estonia at 2 per 100,000 and Singapore at 3 per 100,000. In the United States, the maternal death rate averaged 9.1 maternal deaths per 100,000 live births during the years 1979-1986.[4] The United Kingdom perinatal mortality rate is 8 per 1,000 live births. In United Kingdom the infant mortality rate is 4 per 1,000 live births in year 2012. In India the infant mortality rate is 44 per 1,000 live births in year 2012.In China the contraceptive prevalence rate is 88%. The contraceptive prevalence rate in Afghanistan and Bangladesh is 21 and 61% respectively according to years 2007-2012.[5]

Pakistan is one of the three south Asian countries having highest maternal and perinatal deaths. There is limited access to data related to sex discrimination, sex life, normal physiological changes, family planning needs and maternal health services because of the social and religious factors. The total population of Pakistan is 18 crore in year 2013.[6] The maternal mortality ratio in Pakistan is 260 per 100,000 live births.[7]

The Neonatal mortality rate of Pakistan is 36 in year 2011.[8] Current infant mortality rate according to Economic Survey of Pakistan 2011-12 is 69 per thousand live births. The Under-5 mortality rate (U5MR), 2011 is 72.[9] The two very important goals in MDGs are goal 4 and goal 5, which are to reduce child mortality and maternal mortality respectively. There are six indicators related to goal 4. First indicator is to reduce under five mortality rate from 140 in 1990-91 to 52 by 2015. Over the 1990-91 to 2004-05 the child mortality has declined to 100, a decline of 40% points. MTDF target is to reduce child mortality rate to 77 in 5 years and then a further reduction of 25% points if the target for 2015 is to be achieved. Great efforts would be required to meet the target. Second, infant mortality rate of 102 in 1990-91 is to be reduced to 40 by 2015. Over the last 14 years the mortality has declined by 29% point and the MTDF has a target of 65. There seems very little possibility of meeting the MDG goals. Third, proportion of fully immunized children of 12-23 months should exceed 90% by 2015.[10]

The goal 5 also includes 5 indicators. The target to achieve is to reduce the maternal mortality ratio to 140 till 2015 which has also not been achieved yet.[11]The second indicator is to increase the proportion of births attended by skilled health personnel. The safe motherhood can be defined as "one of the central components of reproductive health, the continuous care provided to the mother started from pregnancy period, throughout pregnancy, delivery and postpartumperiod and it also includes neonatal and family planning services in order to achieve optimal

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health for the mother, fetus and infant during pregnancy, childbirth and post-partum."[12]For achieving this goal the health care providers and medical students can play a very basic role. As defined by ICPD (International Conference on Population and Development),the sexual and reproductive health are not properly represented in medical curricula for medical students and health professionals in many developing countries.[13] Many studies also found medical college training on reproductive health inappropriate.[14]

MATERIAL AND METHODS

This cross-sectional descriptive study was conducted in Lahore General Hospital, Lahore which is a tertiary care hospital in Punjab, Pakistan from 11th of July 2013 to 10th 0f Aug 2013. One hundred and eighty eight nurses were enrolled. A semi structured questionnaire was prepared covering all the appropriate variables by the researcher and was finalized after pretesting. The questionnaire was developed after consulting from their curriculum and discussed with the Nursing instructor who taught them the course of midwifery. Only those questions were selected which were included in their course and the answers were also arranged according to their course. Simple random sampling technique was used to include the study participants. Data was entered and analyzed through SPSS-16. Chi square test was applied to find out deviation between categorical variables. Means were compared using student t test or ANOVAs where applicable.

RESULTS

There were 64 (34%) nurses between 21-25 years, 90 (47.9%) between 26-30 years, 29 (15.5%) between 31-35 years and 5 (2.6%) between 36-40 years. Ninety seven (51.6%) were having monthly income between 40000-45000, 61(32.4%) were having monthly income between 46,000-55,000 and30 (16.0%) were having monthly income more than 55,000.44 (23.4%) were working in Gynae ward, 36 (19.1%) were working in pediatrics, 32 (17.0%) were working in medicine department, 41 (21.8%) nurses were working in surgery and 35 (18.6%) were working in neurology (Table 1).

Forty one (21.8%) were having complete knowledge of the definition of reproductive health, 85 (45.2%) were having partial knowledge of definition of reproductive health while 62 (33%) were not having knowledge of definition of reproductive health at all. 121 (64.4%) of nurses enumerated less than 4 or 4 components of reproductive health while 14 (7.5%) enumerated more than 4 components correctly. Only 6 (3.1%) nurses enumerated all the components of reproductive health while 47 (25.0%) were not having knowledge of any of the components of reproductive health. There were 87 (46.2%) nurses who received their training on RH in last 1 year and 101 (53.8%) nurses did not receive training on RH in last 1 year (Table 2).

One hundred and thirty seven (72.9%) were having knowledge of the pillars of SMH while 51 (21.7%) were not having the knowledge of SMH pillars at all. Only 15 (8.0%) were having the knowledge of all the pillars of SMH, 24 (12.7%) nurses were having knowledge of more than 2 pillars of SMH,99 (52.7%) nurses were having the knowledge of less than two or 2 pillars and 50 (26.6%) nurses were not having knowledge of any of the pillars of SMH. 73 (38.8%) completely described the definition of the emergency obstetrics while 50 (26.6%) described the definition of emergency obstetrics partially and 65 (34.6%) were not able to describe the definition of emergency obstetrics (Table 3).

One hundred and fifty six (83.0%) told accurately about the duration of pregnancy while 21 (11.2%) told that duration of pregnancy is 270 days and 11 (5.9%) narrated that duration of pregnancy is 240 days. There were 111 (59.0%) who were aware of the recommended WHO antenatal visits but 43 (22.9%) told that total no. of WHO recommended antenatal visits is 3 while 34 (18.1%) narrated that no. of recommended antenatal visits are more than 4.45 (23.9%) narrated the components of antenatal visit completely while 105 (76.1%) nurses told components of antenatal visit partially. There were 38 (20.2%) nurses who were not having the knowledge of components of antenatal visits at all. There were 91(48.4%) nurses who were having the knowledge of extra calories required by a woman in pregnancy while 82 (43.6%) nurses narrated that 200 extra calories are required in pregnancy and 15 (8.0%) told that 400 extra calories are required in pregnancy. 0ut of 188 nurses, 89 (47.3%) narrated accurately that 300 extra calories are required in lactation while 41 (21.8%) told that 200 extra calories are required in lactation and 58 (30.9%) told that less than 200 extra calories are required in lactation (Table 4).

Table 1: Sociodemographic characteristics of the nurses (n=188)

Characteristics	No.	%
Age		
B/W 21–25 years	64	34
26–30 years	90	47.9
31–35 years	29	15.5
36–40 years	05	2.6
Marital Status		
Married	86	45.7
Unmarried	80	42.6
Divorced/Separated/Widow	22	11.7
Place of working		
Gynae	44	23.4
Pediatrics	36	19.1
Medicine	32	17.0
Surgery	41	21.8
Neurology	35	18.6
Monthly Income		
40,000 to 45,000	97	51.6
46,000 to 55,000	61	32.4
>55,000	30	16.0

Table 2: Knowledge of nurses about reproductive health and training (n=188)

Characteristics	No.	%
RH Definition		
Know Completely	41	21.8
Know Partially	85	45.22
Do not Know	62	33.0
Enumerate RH- Components		
Don't know	47	25.0
Know < 4/=4 components	121	64.4
Know > 4 components	14	7.5
Know all components	06	3.1
Received Training on RH in last 1 Year		
Yes	87	46.2
No	101	53.8

Table 3: Knowledge of nurses about safe motherhood and its pillars (n=188)

Characteristics	No.	%
Enumerate Pillars of SMH- Components		
Don't know	50	26.6
Know =2/< 2 pillars	99	52.7
Know > 2 pillars	24	12.7
Know all the pillars	15	8.0
Def. Emergency Obstetrics		
Know Completely	73	38.8
Know partially	50	26.6
Do not know	65	34.6

Seventy four (39.3%) were having the knowledge of less than 3 or 3 steps of newborn care, while 53 (28.3%) were having the knowledge of greater than 3 steps of newborn care and 61 (32.4%) told all the steps of newborn care. There were only 49 (26.1%) who knew when bath to be given to a newborn, while 99 (52.7%) told that bath to be given within 8-12 hours and 40 (21.3%) narrated that bath to be given immediately. There were 124 (66.0%) nurses who were having complete knowledge about the early initiation of the breast feeding but 64 (34.1%) commented that breast feeding could be started later (delayed initiation). 168 (89.4%) were having the knowledge that for how long the breast

feeding should be continued, while 14 (7.4%) commented breast feeding duration to be of 1 year and 6 (3.2%) told about breast feeding duration to be of more than 2 year. There were 125 (66.5%) nurses who had the knowledge that for how long the exclusive breast feeding should be continued, while 49 (26.1%) commented that exclusive breast feeding should be continued for 4 months and 14 (7.4%) narrated that exclusive breast feeding should be continued for 8 months (Table 5).

Table 4: Knowledge of nurses about antenatal care (n=188)

Characteristics	No.	%
Duration of Pregnancy (days)		
270	21	11.2
280	156	83.0
240	11	5.9
WHO antenatal visits		
3	43	22.9
4	111	59.0
>4	34	18.1
Enumerate Components of Antenatal Visits		
Know Completely	45	23.9
Know Partially	105	55.9
Do not Know	38	20.2
Extra Calories in Pregnancy		
300	91	48.4
200	82	43.6
400	15	8.0
Extra Calories in Lactation		
200	41	21.8
<200	58	30.9
300	89	47.3

Table 5: Knowledge of Nurses about New Born Care an A Tertiary Care Hospital

Characteristics	No.	%
Enumerate Steps of immediate Newborn Care		
Know <3/ = 3 steps	74	39.3
Know > 3 steps	53	28.3
Know all the steps	61	32.4
When Bath Given to New born		
Immediately	40	21.3
Within 8 – 12hrs	99	52.7
Within 12 – 24hrs	49	26.1
Breast feeding Started		
Early initiation	124	66.0
Delayed initiation	64	34.1
Breast feeding Duration		
1 year	14	7.4
2 year	168	89.4
>2 year	6	3.2
Duration of Exclusive Breast feeding		
4 months	49	26.1
6 months	125	66.5
8 months	14	7.4

Table 6: Knowledge of nurses about family planning methods (n=188)

Characteristics	No.	%
Know About Family Planning Methods		
Know <3/ =3 methods	83	44.2
Know >3 methods	105	55.9
Know About Permanent Male F.P Method		
Yes	142	75.5
No	46	24.5
Know About Permanent Female F.P Method		
Yes	180	95.7
No	8	4.3
Emergency Contraception		
Yes	70	37.2
No	118	62.8

Eighty three (44.2%) nurses were having the knowledge of less than 3 or 3 family planning methods, while 105 (55.9%) were having the knowledge of more than 3 family planning methods. 142 (75.5%) nurses were having knowledge of permanent method of family planning in males, while 46 (24.5%) were not having this knowledge. There were 180 (95.7%) nurses who told tubal ligation as the permanent method of family planning in females, while 08 (4.3%) were not able to tell. There were 70 (37.2%) Nurses who had the knowledge about emergency contraception while 118 (62.8%) lacked this knowledge (Table 6).

DISCUSSION

Reproductive health is a vast subject covering important areas of human life. Safe motherhood is one of the crucial components of the reproductive health and covers important aspects as antenatal care, family planning, clean/safe delivery and emergency obstetrics. The results of our study are comparable to the study conducted by Gandeh and Milaat[15] who reported that the doctors ages ranged between 25-47 with mean age of 37.1 years and 56% were in the 35-44 years group while the nurses mean age was 29.8 years ranging between 20-44 years, 74% of them fell within the 20-34 age group. The ages are comparable with our study where 154 (81.9%) nurses were of age 21-30 years while only 34 (18.1%) nurses were of age 30-40 years with mean age was 30 years. The mean age group of nurses in our study (30 years) and is consistent with Gandeh and Milaat.[15] The work experience is also very important for the management of the patient. In our study most of the nurses 118 (62.8%) had total work experience of 1-5 years while 70 (37.2%) had experience more than 5 years while Gandeh and Milaat[15] reported 30 (33%) nurses had total experience of 1-5 years and 61 (67%) had total experience greater than 5 years.

Training is an important landmark in the management of patients. Gandeh and Milaat[15] stated that 47 (51.7%) did their training in reproductive healthwhich is a better scenario than our study in which 87 (46.2%) received training in reproductive health. Breast feeding is very crucial for the healthy growth and physical and mental development of babies; it is the best initial food for infants and is the basic right of every child. In our study questions about breast feeding were also included. There were 124 (66.0%) nurses who commented that breast feeding should be started within half to 1 hour (early initiation) while 64 (34.1%) nurses told that delayed initiation should be administered. Sultana[16] reported that 148 (98.7%) nurses who responded that optimal time to initiate breast feeding is within 6 hours of birth and 2 (1.3%) thought that it should be after 72 hours of birth.

In our study the knowledge of nurses about duration of exclusive breast feeding was also assessed. There were 125 (66.5%) nurses who responded that exclusive breast feeding is administered for 6 months while 63 (33.5%) commented that exclusive breast feeding is administered for less than or more than 6 months. The study conducted by Sultana[16] showed that there are 112 (74.4%) nurses who commented about early initiation while 38 (25.3%) nurses responded that delayed initiation should be administered. This result is comparable with our study. Although both studies show that greater percentage of nurses knew about duration of exclusive breast feeding but the percentage of nurses who had this knowledge is greater in the study conducted by Sultana[16] and Ebuehi et al.[17]

CONCLUSION

The knowledge of nurses about reproductive health and safe motherhood is crucial. The nurses can learn and get knowledge as this hospital provides open opportunities for the nurses. The nurses had good knowledge in some categories and in some their knowledge was poor. The extent of knowledge was associated with age, marital status, ward experience, total work experience. Overall the nurses in our study were deficient in their knowledge. They were very vague about the knowledge and they did no refresher training courses. The nurses should be encouraged to do refresher trainings so that their knowledge should remain updated. For this the efforts should be made on institutional as well as national levels to facilitate nurses and in turn to facilitate patients

so they can be managed by educating them properly through nurses.

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