knowledge assessment of neonatal care among postnatal mothers

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Abstract

Introduction
: 99% of 4million neonatal mortality occur in developing countries every year. Mortality rate of newborns accounts for 18.3 per 1000 live birth that comprised 69% of IMR and 56% of Under 5 mortality in IRAN. A Comparison of statistical trend between infant and newborn rate from 1988 to 2001 revealed a considerable decrease in IMR but slightly decrease in NMR. training postnatal mothers and Preventing neonatal mortality rate is effective .This study has been carried out for assessing the Knowledge regarding to neonatal care among postnatal mothers.

Methods
In this cross-sectional study, from target population of mothers of referral neonates into Ravar/Kerman medical health center. A sample was chosen with convenient sampling method .Then a questionnaire consisting of questions regarding to assessing generalized surveillance during neonatal and Icter period and Umbilical cord surveillance were collected. Data were analyzed using SPSS 19. T test and ANOVA were used for analyzing the relationship.

Results
316 mothers with mean age of 25.87 were studied. 8.2% of mothers had poor knowledge, 78.5% moderate and 13.3% had good knowledge. Also urbanmothers less than 24 year of age with 2 or 3 children and higher level of education obtained significantly higher knowledge score.

Conclusion
The results showed that Knowledge levels of 78.5% of mothers were moderate. So it is imperative to provide comprehensive training in the field of newborn and infant care for mothers.

Key words
Mothers, Knowledge, neonate care

Introduction

Pregnancy period, child birth and neonatal period, have great emotional effect on families and could be considered as a new experience in life. In addition, According to specific biological and psychological characteristics of neonates, they need higher attention regarding to neonatal care. Neonatal mortality is the most leading cause of mortality in under 5 years children.

Insufficient knowledge of parents regarding to specific issues in this period could lead to parents' confusion , decrease quality of care and threaten neonatal health.(1,2)

Therefore, prenatal education according to neonatal disease could elevate mothers' knowledge regarding to respiratory distress, sepsis and preterm side effects. (3)also, Lack of maternal knowledge about neonatal care cause inappropriate action and could lead to various diseases and even child mortality. Therefore, maternal Knowledge Assessment has valuable importance in health development. (4)

Methods

This is a descriptive cross sectional study which consisted of 316 mothers referred to Ravar/Kerman medical health center in 2009 based on convenient sampling. Excluded participants replaced by an alternative mother.

Data were collected by a Questionnaire which was designed in 2 parts

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First part included demographic characteristics such as age, parity, occupation, educational level, education about prenatal care and place of inhabitants.

Second part consisted of questions in 3 groups which evaluate maternal knowledge of generalized surveillance during neonatal and Icter period and Umbilical cord surveillance. (4)

truth or falsity of responses and mean score of each question were evaluated and knowledge level were estimated.

Knowledge score <30 considered as poor, 30-60 as intermediate and >60 defined as high knowledge level.

Descriptive analysis consisted of mean and standard deviation were evaluated in quantitative variables and relative and constant variables used for qualitative variables. Variance analysis test and T-test were used to analyze data in SPSS19.

Results

316 mothers with the mean age of 25.87±5.08 participated in this study. Minimum and maximum age was respectively, 14 and 42 years. 290 (91.8%) of participants were housewife and 24 (7.6%) employee contributed.

50.10% of them comprised academic level of education and 218(69%) mothersacquired educations regarding to neonatal care.

Table 1 demonstrated the knowledge score regarding to demographic characteristics. The highest mean score regarding to age range dedicated to mothers less than 24 years old which revealed non significant difference in comparison with other groups.(p=0.959)

According to place of inhabitants, urban participants achieved higher mean score in comparison with rural participants which showed non significant difference. (P=0.198)

Also, according to educational level, the highest mean score of knowledge devoted to individuals with academic level of education.(5.10 ±10.10) and the lowest mean score assigned to elementary level (37.9% ±8.07) which showed significant difference (p<0.005)

Mothers with 2 or 3 children had highest mean score (47.7% ±10.62) and lowest score dedicated to mothers with more than 3 children.

The mean knowledge score in mothers acquired prenatal education were %49±11.6.

Tables 2,3 and 4 showed relative frequency of questions regarding to generalized surveillance during neonatal and Icter period and Umbilical cord surveillance

Generally, 2.8% of participants comprise poor knowledge, 78.5% intermediate and 13.3% high knowledge level.

Table 1: mean knowledge scores regarding demographic characteristics

Variables	mean knowledge score	P-Value
Age groups Less than 24 years 25-32 years 33-40 year More than 40 years	47.2±12.5 46.8±10.08 46.2±9.5 45.5±4.04	0.959
Place of inhabitants urban rural	47.08±10.97 46.4±12.01	0.198
Educational level Elementary school Guidance school High school Diploma or pre-university University religious Science	37.9±8.07 46.3±12.8 46±7.62 48.9±10.34 50.10±10.1 42±16.16	0.00
Occupation type housewife employed Self employed	46.6±11.47 49.58±6.16 56±0.00	0.245
parity 1 2 or 3 More than 3	46.9±12.04 47.7±10.62 43.2±4.11	0.229

Generalized neonatal surveillance consisted of 7 issues (table 2); the highest score belonged to the complementary food onset (73.4%) and the lowest to the normal urination frequency(10.1%).

In umbilical cord surveillance(table 3), the highest score devoted to correct

Frequency of surveillance (82.3%) and regarding to umbilical cordocclusion and cleaning ,85.2% and 74.1%participants noted correct answer, respectively. Also, 13.7% and 3.8% of mothers mentioned ethanol and povidone-iodine for cord cleaning.

Table2: relative frequency of correct answers regarding neonatal generalized surveillance.

Question	Frequency	Relative frequency
Normal urination frequency	32	10.1
Stool onset time	42	13.3
Urine onset time	42	13.3
First bath	88	27.8
Swaddling	208	65.8
Complementary food	232	73.4

Regarding appropriate surveillance during the Icterus period, 308(97.5%) of mothers mentioned breastfeeding continuum. Furthermore, results showed that 28.5% of participants claimed that fluorescent light was an inappropriate method.

Table3: Relative frequency of correct answers regarding umbilical cord surveillance.

Question	Frequency	Relative frequency
Frequency of surveillance	260	82.3
Cleaning Substance	234	74.1
Occlusion time	26	8.2

Table4: Relative frequency of correct answers regarding surveillance during the Icterus period

Question	Frequency	Relative frequency
Substances for Icterus declination	138	43.7
Feeding	308	97.5
Fluorescent light	90	28.5

Discussion

4 million deaths occur in the first month of life.(5) neonatal care educations immediately after birth have an effective role on neonatal mortality and Recently, these educations has been improved.(7)

Results showed that 78.5% of mothers had intermediate knowledge level regarding to neonatal generalized surveillance which was similar with another study that revealed 71.3% intermediate knowledge level.(4)

Regarding to Urination frequency , 10.1% of participants revealed correct answer which was similar with sharafi et al(9.3%)(4) and it seems that this result could be as a result of stress and confusion.

However, 8.2% and 13.3% of mothers noted correct answer about umbilical cord occlusion and stool onset time, which was inconsistent with sharafi et al that showed 1.3% and 34%, respectively (4)

56.3% of mothers mentioned use of drugs at home which could be as a result of their incorrect beliefs. Also , ghaffari et al indicated that 19.3% of mothers had inappropriate, 60.3% relatively appropriate and 20.5% appropriate attitude toward Icter which was significantly related to age, educational level, parity, place and socioeconomic status(8)

In this study, 82.3% of mothers know correctly the frequency of umbilical cord surveillance. However, Padiyath revealed that 35% of mothers had incorrect knowledge and obtained that multi parity, higher age and socioeconomic status significantly related to higher knowledge level. (9)

in addition, Results mentioned significant relation between age, place, occupation and parity with knowledge level and the highest level obtained by mothers less than 24 years of age and higher than diploma which were consistent with sharafi et al.(4) accoding to results, Occupation and 2-3 children had significant relation with higher score. However, sharifi et al revealed higher education and one child as related factors.(10)

conclusion

regarding to mothers 'low and intermediate level of knowledge , it seems that there is an urgent need for promoting mothers knowledge and it is imperative to provide comprehensive training in the field of newborn and infant care.

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References

1- The ministry of health and medical education. Population and health in lran, 2000, health office of family and population of Tehran.Tehran: Estila pub; 2002.

2- Taghavi M. The mortality rate if 23 provinces of country in 2005 Tehran: The miuistry of health and medical education; 2005.

3- Weiner EA, Billamay S, Partidge JC, Martinez AM. Antenatal education for expectant mothers results in susteuined improvement in knowledge of newborn care. Department of pediatrics, university of califoriasan Francisco, CA 94110, USA. 2011 Feb: 31(2): 92-7- Epub 2010 Augs.

4. Sharafi, R. knowledge assessment of hospitalized neonatal care among postnatal mothers in Rasht.urumieh medical journal.2010.:20(1):21-25.

5- Black RE, Morris SS, Bryce J. where and why are 10 million children dying every year? Lancet 2003; 361: 2226- 2236.

6- World health organization, Essential Newborn care: A Report of thecchnical workingGoroup. Geneva 1996.

7- Darmstadt GL, Bhatta ZA, Cousens S, Adam T, walker N, Bernis Let al Evidence based, cost effevtive inter- ventions; How many newborn babies can we save? Lancet 2005; 365 (9463): 977-988.

8. ghaffari V, VahidShahi K, Taleshi B. knowledge and attitude assessment of neonatal Icter among postnatal mothers in sari: Journal of Mazandaran University of MedicalSciences .2005:92-97.

9-MohamadAsifpadiyath, vishnuBhat B, heswariEkambaram,

knowledge attitude and practice of neonatal care among postnatal mothers, Jawaharlal institute of postgraduate medical Edueation and research, puducherry, India, vol. 14, No. 2 (2010- 07- 2010- 12).

10- Sharifi F, Determine amount of knowledge of the villagerswith regard to complementary feeding of the infants in babol. Iran J pediatr 2002; 12(3): 35- 38.