Nursing care of infants in the community

Rasa Stundžienė*,
Algimantas Vingras

Institute of Rehabilitation, Sports Medicine and Nursing, Faculty of Medicine, Vilnius University, M.K.Čiurlionio 21, LT-03101 Vilnius, Lithuania

BACKGROUND

It is very important to assist newborns in adaptation, to assure their successful growth, development and health status. All of the mentioned problems can be solved only by appropriate and thorough nursing and rational feeding.

In the primary health-care system, infant's health and its maintenance are most closely associated with his / her extended family and the surrounding environment. Community nurses, when visiting a child, have an excellent possibility to observe his / her development, growth and surroundings. Therefore they can help the family when they face certain problems associated with the infant nursing care.

No doubt, this theme is very topical to every newly started family planning to have children or already having a child, and also to the community nurses who often communicate with the families bringing up small children.

The infant's health depends on timely nursing care he / she is given and the environment where he / she grows: the optimal temperature of the room, food quality, sleep, getting a fresh air, clothing, hygiene, etc. (1).

When solving the problems regarding the child's health, nurses usually face two patients: the child and the family. The results mostly depend on the nurse's capability to communicate with the family when teaching them how to take care of the child.

Most of parents do understand that regular and timely nursing visits help to decrease their child's susceptibility to diseases on the one hand, and save their costs necessary for the treatment of their child on the other hand.

According to the order No. 301 “On Health Assessment of Children and Teenagers” issued by the Health Minister of the Republic of Lithuania on the 31st of May 2000, in the 1st month of their life all healthy newborns shall should be visited by nurses once a week, and those who might be exposed to any risk factors may should be visited more often (2).

During the first visit, a community nurse and a doctor evaluate the environment of the newborn, the family's preparation to take care of her / him, the newborn's and mother's health status, give advice on nursing care and feeding, and in case of certain problems provide an appropriate help. Mother and family members should receive exact and unambiguous...
answers to their questions, and medical staff should be certain that the mother and family members understood the answers in the right way.

Legislation of the Republic of Lithuania on health care of pregnant, parturient and post-partum women and newborns do not list very precise functions of community nurses regarding teaching pregnant and postpartum mothers how to take nursing care and to breast-feed their infants (1, 3, 4).

There are a lot of studies made by foreign and Lithuanian authors on newborn / infant nursing care and the importance of natural feeding to infant's health. There are several clinical studies which analyse the nurse's role in newborn / infant nursing care and teaching mothers breastfeeding technique (5–11).

The authors have failed in finding any studies on the nurse's role in taking care of the infant up to the age of six months as well as on how parents evaluate the work performed by nurses.

The aim of the study was to find out the infant nursing care problems up to the age of six months and their parents' attitude towards the work of nurses.

The tasks of the study were as follows:

1. To define infant nursing care problems which emerge most often in the 1st–6th months of their life.
2. To find out where mothers usually seek help when any infant nursing care problems arise.
3. To find out how often the nursing staff was making home visits in the 1st–6th months of infant's age.
4. To find out how parents assess the work of the nurses who visit their infants at home.

MATERIALS AND METHODS

Study population – mothers bringing up infants of 6 months of age and over.

Methods

1. Sample size

Mothers bringing up 6 month-old or older infants took part in the study. In total, 186 questionnaires were distributed; 152 of them were returned and were considered as suitable for the data analysis (the response rate was 81.7%).

The inclusion criteria were the following:

• respondents bringing up 6 month-old or older infants;
• respondents living in Lithuania (a few questionnaires filled in by respondents living abroad were rejected);
• a properly filled-in questionnaire.

2. Methods

Online Questionnaire. An original questionnaire containing 42 questions and representing the peculiarities of nursing care of infants up to the age of six months was compiled and used for the study. All the questions were grouped into three groups. The 1st group included questions on the characteristics of the respondents (1–6) – their social status, age, education, parity, etc. The 2nd group were the questions on newborn / infant nursing care problems (7–36). These questions aimed at finding out how often community nurses visited infants at home during their first 6 months of life, what nursing care problems emerged most often and who helped mothers to solve the problems. The 3rd group of questions aimed at finding out parents' attitudes towards the work of nurses (37–42).

3. Study course

The study was carried out in December 2005 – April 2006.

3.1. The newest literature was gathered according to the subject, and an analysis of this literature was made. After that, a questionnaire of 42 questions designed for mothers bringing up 6 month-old or older infants was worked out by the authors.

3.2. A pilot study was carried out prior to starting the interview – canvassing 10 respondents who had 6 month-old or older infants (to check the relevance of the questionnaire).

3.3. The interviews took place on the Internet forums: www.tavoilas.lt and www.supermama.lt. These forums agreed to put in their sites the questionnaire which was designed to question mothers bringing up 6 month-old and older infants.

3.4. The aim of the study, its relevance and need were explained to the study participants. Anonymity of the responders was guaranteed, and the received data were used only for this study.

3.5. Afterwards the obtained data were analysed.

Statistical analysis

Statistical analysis of the data was carried out using SPSS 13.0 software package for Windows

Frequency and correlation analyses were completed. Data of continuous variables were calculated by average mean and standard deviation. The results were regarded statistically significant if the p-value was less than or equal to 0.05 (p ≤ 0.05). The correlation was determined by calculating the rank correlation (Spearman) coefficient (r).

Reliability of the questionnaire

The reliability of the questionnaire was measured using correlation analysis. Cronbach's alpha of all the generalized factors exceeded 0.6, i.e. the reliability of the internal consistency of the questionnaire was good.

RESULTS

The mean age of the respondents was 26.4 ± 3.9 years. The youngest mother was 19 and the eldest 37 years old. The age mode (Mo – most often occurring number) was 25 years. After rank order analysis, the age of the respondents was distributed into four groups according to quartiles. The majority of respondents were 24–28 years old (55.9%). The majority of the respondents were Vilnius inhabitants (40.1%) and those bringing up one child (66.4%); two thirds of the respondents had higher education (71.1%), the findings being of statistical significance (Table 1).

The youngest infant was 6 months and the eldest 19 months old, mean age 8.24 ± 3.1 months, age mode 6 months.

Special interest of the study was to elucidate the infant nursing care needs that occur in the first 6 months of their life (Tables 2, 3). The questions were open but the respondents were not allowed to give more than three answers. Regarding the 1st month of the infant's life the respondents more complained of breastfeeding problems (24.8%) and umbilical care problems (19.9%) than skin care – 12.8% or disturbed sleep – 5.7% (p < 0.05).
In the 2nd and 3rd months of their life, the infants were more often discomforted by abdominal problems than by breastfeeding disorders (p < 0.05) (Table 2).

In the 4th month of the infants’ life they were more often discomforted by abdominal problems (20.8%) than by teething (14.4%) or skin care problems (16.4%) (p < 0.05) (Table 3).

In the 5th and 6th months of infant’s life, problems associated with complementary feeding occurred (p < 0.05) (Table 3).

A more detailed investigation was made of what helped mothers to solve all infant nursing care problems occurring in the 1st–6th months of their infant’s life (Tables 4, 5).

In the 1st–3rd months of infant’s life, mothers preferred to solve nursing care problems more often with help of the extended family rather than to ask the nursing staff or doctor for help (p < 0.05) (Table 4).

The infant nursing care problems that occurred in the 4th–6th months of the infant’s life the respondents solved more often by reading a special literature or applying to the doctor instead of asking the nurse to help them (p < 0.05) (Table 5).
The results showed no association among the infant's nursing care problems and the mother's age, education, number of births and place of residence.

To the question "When did the nurse visit you after you came back home from the hospital after the delivery?" slightly more than a half (51.9%) of mothers answered that the nurses visited them within the first 3 days. Most (42.8%) of the respondents were visited by the nursing staff on the third day.

Nearly half (46.1%) of the mothers were visited by a nurse after the third day and 1.9% were not visited at all.

We also tried to find out how often nurses visited newborns at home in the 1st–6th months of their life (Tables 6, 7).

In the 1st month of infant's life nurses made more visits once a month (38.8%), and once a week – 14.5% (p < 0.05).

Tables 6 and 7 show that nursing staff visited the infants in the 2nd–6th months of their life once a month (p < 0.05).

Mothers were not visited mostly in the 5th (79.6%) and 6th (78.9%) months of their infant's life.

The authors attempted to find out how often the respondents would like to be visited by a nurse in the 1st–6th months of their infant's life.

Most mothers would like to be visited more often in the 1st and the 2nd month (61.0%), i.e. once a week, but most of them were visited once a month (38.8%).

Nearly half (44.2%) of the mothers had a wish to be visited by nurses once a month in the 3rd–6th months of their infant's life, but most of the respondents were not visited at all (Tables 6, 7) (p < 0.05).

Evaluation of mothers' indications on items they were lacking in nurses' work showed that mothers were lacking information on infant care and solving infant nursing care problems (76.8%) more often than attention (42.7%), newer knowledge (29.3%) or competent actions (21.9%) (p < 0.05).

The answers to the question whether mothers relied on their nurses showed the following results: a bit more than half of the respondents relied on their nurse (53.9%), and 46.1% did not rely. After analysing the reasons for distrust, it was noticed that out of 58 mothers who gave the negative answer, one third (32.8%) lacked information about infant nursing, 22.4% were visited by the nursing staff only once or twice during the 6-month period, and the same percentage of the respondents pointed out that the nurse was always in a hurry and did not pay enough attention to solving infant nursing problems (Figure).

DISCUSSION

The following issues were evaluated when analysing data of the 152 questionnaires: the most frequent infant nursing care problems that occur during the 1st–6th months of infant's life, persons helping mothers to solve the problems, and how parents evaluate the work of nurses visiting them at home.

The analysis showed that the frequency of infant nursing care problems that occurred during the 1st–6th months conform to nursing care problems that are emphasized in the literature and are different in each month (12–15). Regarding the 1st month, the respondents complained more often about breast-feeding and umbilical care problems; in the 2nd, 3rd and 4th months abdominal problems prevailed, and in the 5th and 6th months complementary feeding needs occurred.

Comparison of infants' age and problem frequency showed that nursing needs were "growing" with the infants: in the 1st month the problem frequency was 62.4% while in the 6th month 77.3% (p < 0.05).

If we compare the doctor's and the nurse's role in solving infant nursing care problems, we can observe that when the child is growing his / her mother consults a doctor more often (in the 1st month – 30.0% and in the 6th month – 56.3% of the respondents) than a nurse (22.7% and 16.2% respectively).

Mothers very rarely apply to a nurse when they experience infant nursing care problems. Thus, community nurses and pediatric nurses should put more efforts to obtain mothers' trust in solving infant nursing care problems. Medicinal problems should not be solved by family members; the family members may just share their experience.
Analysis of home visit frequency during the 1st–6th months showed that during the 1st month nurses visited infants more often once per month than once per week as obliged. According to the Order No. 301 issued by the Health Minister of the Republic of Lithuania on the 31st of May 2000, nurses together with physicians should make the first home visit within the first three days after newborns leave the delivery department. During the 1st month the nursing staff should make home visits once per week and during the 2nd–6th months once per month.

During the first home visit it is important to evaluate the delivery department information about the newborn, parents’ answers to the questions on her / his status, feeding, sleep, changes in behaviour, etc. Hygienic characteristics of the newborn’s environment, family’s preparedness to take nursing care (cleanliness, orderliness, handling of the infant, etc.), the newborn’s and mother’s health status are also evaluated, advice on newborn nursing care and feeding is given, appropriate help is provided according to the situation, relationships among family members are evaluated, physical growth parameters are recorded in the growth chart (weight, length, head and chest circumferences) (16).

We searched for the information on how community nurses perform infant nursing care home visits in other countries. In Great Britain, a maternity nurse takes nursing care of a newborn. Maternity nurses usually visit homes on demand. The team consists of a maternity nurse, a general practitioner, a social worker and a community nurse. The community nurses visit infants since their 2nd month of life (17).

In the USA (New York, Tennessee, Colorado state) community nurses are being trained in a two-week course and are allowed to have no more than 25 families in their area. They start their visits since the 2nd term of pregnancy and continue them till the child is two years old. The frequency of these visits mainly depends on the family needs and they can be made once a week or once a month accordingly. The visit lasts 75 to 90 minutes. The nurse cooperates with the family, consults and teaches the parents. These consultations can be classified into three categories: 1. Knowledge being provided to mothers and fixing of the knowledge obtained. 2. Newborn / infant nursing care. 3. Pregnancy planning.

The nurses are carrying out a special home nursing care program aimed at ensuring a better child nursing care. The parents are being taught how to understand, take nursing care and solve all child nursing care problems (17, 18).

The mothers’ wishes on visit frequency were approximately in agreement with the schedule set by the order No. 301: during the 1st–2nd months fortnightly and during the 3rd–6th months once per month (p < 0.05).

In order to ensure harmonised infant growth and development, timely problem solving and positive mothers’ attitude towards the work of nurses, the nursing staff should pay more attention to meeting infant nursing care needs, teaching mothers to take care of their infants and making home visits regularly required by the order No. 301.

CONCLUSIONS

1. The most frequent infant nursing care problems that occur in the 1st–the 6th months are:
   - in the 1st month of their infants’ life the respondents more often complained of breastfeeding and umbilical care problems;
   - in the 2nd–4th months, the infants were more often discomforted by abdominal problems;
   - in the 5th–6th months of infants’ life, problems associated with complementary feeding occurred.

2. The respondents solved the infant nursing care problems that occurred in the 1st–2nd months most often with the help of relatives, while the infant nursing care problems arising in the 4th–6th months were more often solved by reading a special literature or consulting a doctor.

3. In the 1st month of infants’ life, the nurses visited them most often once a month. In the 2nd–6th months, the nursing staff did not visit infants at home more often than once a month.

4. Nearly half of the respondents did not rely on the nursing staff.

5. The reasons for distrust in the nursing staff: one third of the respondents lacked the information about infant nursing care; 22.4% of mothers were visited at home very seldom and the same percentage pointed out that the nurse was in a hurry and did not pay attention enough to solve the infant nursing care problems.

SUGGESTIONS

1. All the recommendations and advice that nurses usually give to mothers should cover the most frequent infant nursing care problems such as, for example, in the 1st month – feeding technique, skin and umbilical care, in the 2nd–4th months – abdominal pains, the 5th–6th months – complementary feeding, etc.

2. At the nurse training courses, more attention should be paid to the suckling breastfeeding technique, complementary feeding, umbilical and skin care and also to the prevention of gastrointestinal problems.

References