

SUMMARY

Premature infants represent the highest percentage of high risk group, it account for the largest number of admissions to the NICUs. Fortunately, the majority of premature infants discharged from the NICUs thrives and develop normally, some will experience medical problems and developmental delay, these include hypothermia, increased susceptibility to infections, difficulties of growth and feeding, apnea, bradycardia, respiratory problems, fine and gross motor abnormalities and other learning problems (*Kenner et al., 1998; and Kenner and Lott, 2004*). Mothers are faced with the problem of learning about the special care needs of premature infants and how they differ from the needs of full term infants. Ideally parents are involved in the physical care of their infants before discharge and developmentally supportive care practiced in the NICUs helps them adapt to the behavior of premature infants. On the other hand, comprehensive long-term follow-up care is especially important for every premature infant because of the incidence of significant handicaps and appropriate treatment when indicated will improve the outcome (*Littelton and Engebreston, 2005; and Wong et al., 2007*).

Aim of the study:

The aim of this study was to assess mothers' practical knowledge about care of their premature infants after discharge from the Neonatal Intensive Care Units (NICUs).

Subjects and Methods:

A) Research Setting:

This study was conducted at NICUs in Benha Children Hospital, Benha University Hospital, and Benha Teaching Hospital.

B) Subjects:

The subject of the study composed of two hundred mothers who were attending of the previously mentioned settings for different purposes as feeding, visiting of their premature infants,ect. Infants of these mothers are at weaning phase from the incubators (2 days before discharge from NICUs).

C) Tool of Data collection:

A structured questionnaire sheet was designed, adjusted and prepared in an arabic language by the researcher after reviewing a related literature. Questions were either closed or open ended types of questions.

The questionnaire comprised of the following data items:

1. Socio-demographic data of the infant, which includes sex, gestational age, birth weight, and birth order.
2. Socio-demographic data of the mothers, which includes mothers' age, educational level, and occupation.
3. Mothers' practical knowledge regarding care of their premature infants such as; feeding, bathing, elimination pattern, safety measures, immunization, protection from infection, hypothermia, high risk signs and symptoms such as; convulsion, cyanosis, respiratory distress, vomiting, and alteration of activity.

The findings of this study can be summarized as follows:

- The mean gestational age for premature infants was 34.2 ± 0.36 ; the mean birth weight was 2300 ± 230 grams, while the mean age of mothers was 25.70 ± 0.77 years.

- The main source of mothers' knowledge about care of their premature infants was obtained mainly from their own mothers (31.5%), meanwhile (5%) from nurses.
- Information of mothers about the concept of premature infant was inadequate, in addition, 78% of mothers had incorrect concept about the meaning of premature infants.
- There were correct knowledge (62%) about causes which led to premature birth, problems which might face premature infants, and different infants' needs.
- There was incorrect practical knowledge (23%) about eye care, cord care, bathing, diaper care, sleeping patterns and immunization
- The study showed correct practical knowledge about methods of prevention of infection (80.5%), significance of infants' crying, care of premature infants during vomiting and/or constipation, bottle care, feeding problems (83.5%), dangerous high risk signs (84.5%), and importance of regular medical follow-up (54.5%).
- There was incorrect practical knowledge about formula preparation, appropriate ranges of birth weight of premature infants'. Only 22% of mothers could recognize correctly this weight ranges.
- There was a significant relation ($P < 0.001$) between mothers' age and their knowledge about premature infants.
- There was a statistical significant ($p < 0.001$) difference between mothers' level of education, and working status in relation to their knowledge about premature infants' care.

- There was a non significant relation between working status and mothers' practical knowledge about premature infants' care. ($r = 0.142$, $P < 0.05$).
- There was a highly statistically significant ($r = 0.197$, $P < 0.001$) difference in relation to mothers' knowledge about premature infants' care and birth order of their premature infant
- There was a non significant relation between gender of premature infant and mothers' practical knowledge about premature infants' care. ($r = 0.142$, $P < 0.005$).

Conclusion:

From this study we can conclude that, the majority of mothers had incorrect and inadequate knowledge about care of their premature infants, this care includes; eye care, cord care, diaper care, bathing, prevention of infection, safety measures, and regular medical follow-up, after discharged from NICUs. Furthermore, this study conclude that the main source of mothers' information about care of premature infants was obtained from their own mothers, physicians, neighbors, and broadcasting media.

Recommendations:

In the light of the findings of the current study, the following recommendations are suggested:

- 1) Special attention should be given to the mothers of high-risk pregnancy during prenatal period to prepare them for caring of their premature infants.
- 2) Instructions should be given to expectant mothers during antenatal visits and should focus on care of their premature infants, highlighting

the care at home after discharge from the NICUs. These instructions could be reinforced and supplemented by educational pamphlets.

- 3) Provide information for mothers about care of their premature infants through mass media such as television, radio, news paper, pamphlets,etc.
- 4) Providing educational programs for mothers to help them in caring of their premature infants.
- 5) Nurses should play a key role in health teaching and counseling of mothers both in urban and rural areas about care of their premature infants after discharge from NICUs.
- 6) Mothers of premature infants should be educated about the extreme vulnerability of their premature infants to infection, as well as their nutritional requirements, so as to foster normal growth and development.
- 7) Nurses must let the mothers participate in care for the infant, and allow them to do procedures for the infant to keep mother-child attachment and reduce the level of their stress.
- 8) Weekly conferences for mothers of premature infants to discuss premature infant's care needed, using up-to-date knowledge to encourage provision of high quality of care.
- 9) Written schedules and teaching plans should be given for the parents and caregivers to use as a reference after discharge of their premature infants. These schedules should illustrate the dates, times, and settings for follow-up visits and emphasize on the importance of pre-discharge plan.

- 10) Emphasize the importance of regular medical follow-up after infant discharged in the pediatrics follow-up clinics to assess infants' growth and development, to help their mothers to overcome any problems faced them, and, change drugs according to infants' health condition.
- 11) Emphasize the importance of pre and post discharge plan for these premature infants for providing regular medical follow-up after infants' discharge and providing care for both mother and their premature infants.