

Relationship between Mothers' Concerns and Mothers' Needs of Children: A Descriptive Cross-Sectional Study

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Abstract

Introduction: Hospitalization of children is one of the main causes of anxiety and concern for families. Mothers of sick children need emotional support to provide effective care and adequate support for their children.

Objective: This study aimed to investigate the relationship between mothers' concerns and mothers' needs of hospitalized children.

Materials and Method: This descriptive cross-sectional study was conducted on 150 mothers of children admitted to the Pediatric Ward of Baqiyatallah Al-Azam Hospital in Ali Abad Katoul, Golestan province, Iran, in 2018. The children were hospitalized for at least 24 hours and were selected by the convenience sampling method. The concerns of mothers were measured by the parents' concerns Questionnaire, and the mothers' needs were assessed by "the needs of hospitalized children's parents" questionnaire through individual interview. Data were analyzed by Anova and Independent sample test and Spearman Analysis by SPSS 21 Software at a significance level of 0.05.

Results: The mean scores of mothers' concerns and mothers' needs were 16.6 ± 5.4 and 152.78 ± 2.35 , respectively. Pearson correlation coefficient showed a significant relationship between mothers' concerns and mothers' needs ($P < 0.001$).

Conclusion: Mothers' concerns are decreased by decreasing mothers' needs. By identifying factors effective in decreasing mothers' concerns, the treatment team members, especially nurses, can play an important role in providing nursing care and support for mothers of hospitalized children. Therefore, increasing the self-confidence of mothers and providing nursing support for them will increase the quality of care and satisfaction of patients and their caregivers, especially mothers.

Keywords: Needs; concern; Mother need; Mother concern; Hospitalized

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Introduction

Hospitalization is a process in which, a health problem is diagnosed and it lasts from the hospital admission to discharge [1]. About 30% of children are hospitalized at least once during their childhood, and about 5% of them will be admitted for several times. In the year 2014, About 5 million children are admitted to the hospital for diagnosis or treatment annually in the United States [2]. Hospitalization is stressful for children and parents. Uncertain outcomes, frequent hospitalization, special treatments for the child, and watching children's pain and fear would increase the stress level of parents and affect their performance and future planning [3]. Accordingly, the hospitalization of children is always considered as a stressor for the children and their parents, as parents often experiencing psychological problems, like stress and anxiety [4,5]. Hospitalization of children is accompanied by feelings of guilt, confusion, hopelessness and anger for the parents [6]. Parents' concern, especially mothers, is often associated with problems in child-rearing and motherhood and prevents them from playing their parental role, and this can affect children's development [7]. The concern is a cognitive process that is associated with persistent

and repeated thoughts about personal anxieties and the difficulty in ending this chain of thoughts [8]. Parents' concern is often related to the severity of disease and the methods of treatment used for their children and caused by the lack of information about procedures and treatments, unfamiliarity with hospital rules, unfriendly behaviour of the personnel, and fear of asking questions [9]. Mother's anxiety is very important because the psychological problem of mothers, especially concern, leads to emotional and behavioural problems in children. It can also negatively affect the ability and self-efficacy of caregivers, especially mothers, therefore anxiety and concern management can be particularly helpful [10]. Among the age groups, toddler age is important because it is the period when children seek independence. Lack of parental control over children and the start of independent eating are among the new behaviours in the life of toddlers [11]. Childhood is also important for health and development in later life, so neglecting this period will have irreversible consequences [12].

On the other hand, it is important to talk to the nurse in charge of the patient, be aware of the conditions in which the patient is hospitalized, and ensure adequate care for the basic needs of family members.



Mothers' emotional needs include the need to express their feelings, hope for patient recovery, nurses' attention to the patient and the patient's family, and the family's contribution to patient care. Personal needs related to hospital facilities include food supply, accommodation, and waiting room facilities [3]. Meanwhile, depending on the severity of the illness, concern and supportive needs of mothers increase. Because, depending on the nature of the illness and the hospitalization of the child, the basic needs of mothers, such as eating, resting, health, mental, psychological and economic needs change. These needs vary with the culture, time and place of living of the individuals [13]. When parents, especially mothers, feel empowered in a critical condition, they support their sick children and facilitate their treatment process [14]. In the study by Stremmer R, et al. (2017), nurses play an important role in parents' psychological evaluation and family health promotion during children's hospitalization [15]. Since parental support is the most important factor in determining the child's reaction to nursing care, parents who are frequently informed about the health status of their children by health care personnel are less likely to have stress and can help their children to adapt better to the hospital environment [7]. As a result, it is possible to reduce or eliminate the needs and concerns of parents by identifying the factors associated with parental concern and introducing them to counselors and education specialists [16].

Objective: the purpose of this study was to determine the relationship between mothers' concerns and mothers' needs of Children Admitted to Baqiyatallah Al-Azam Hospital of Ali Abad Katoul.

Method

This descriptive and cross-sectional study was conducted in 2018 on the mothers of children admitted to Baqiyatallah Al-Azam Hospital in Aliabad Katoul city in Golestan province, Iran. The sample size in this study was based on the formula $n = (z^2 \cdot p(1-p) / (\alpha/2)^2)$ at a significance level of $\alpha = 0.05$, $Z_{975} = 1.96$, with $p = 0.25$, $d = 0.07$, a total of 147 subjects were calculated. To increase generalizability, the researcher considered 150 subjects who were selected by convenience sampling method.

Inclusion criteria were; being admitted in the hospital for at least 24 hours, the presence of mother during the hospitalization of a child, having at least reading and writing skill (for mothers), not having mental/psychological disease, and being between 2-12 years old (for children). The exclusion criteria were the unwillingness of mothers to participate in the study and incomplete completion of the questionnaire.

The data collection tools were a demographic information questionnaire (mother's age, child's age, child's sex, mother's educational and economic status) and questionnaire to measure the concerns of mothers, which included 15 close-ended questions. The items of this tool were scored as follows: 0 = never, 1 = a little and 2 = very much [17]. The total scores of the questionnaire varied from 0 to 30, with higher scores reflecting higher maternal concerns and lower scores indicating lower maternal concerns. In the study of Bekmaz K (2019), the reliability of this questionnaire was evaluated ($\alpha = 0.69$) by Cronbach's alpha coefficient for all items [17].

The "Parent Needs of Hospitalized Children" questionnaire (NPQ) was used. Parent needs are divided into seven subscales: "comfort or physical needs", "support, guidance, and counselling needs", "achieving information needs", "communication needs", "mutual trust needs between the treatment team and the parents", "the sick child needs" and "other family member needs". In total, the questionnaire measures five

variables: "the value of the importance of need", "satisfied need level in hospital" and "the parents need staff cooperation to meet this need". The value of the importance of needs was measured on a 3 point Likert scale; the items consisted of 'not important' = 0, 'slightly important' = 1, and 'important' = 2. Hospital needs are measured on a 3 point Likert scale including 'not at all' (zero points), 'slightly satisfied' (1 point) and 'very satisfied' (2 points) and parents needing help is measured by both "yes" (1 point) and "no" (zero points). The overall reliability of this tool was confirmed by Cronbach's alpha coefficient of 0.86.

The formal and content validity of these two questionnaires were approved by ten faculty members of clinical nursing education of Golestan Islamic Azad University. The researcher, after approval of the project and receiving the code of ethics, IR.IAU.CHALUS.REC.1397.012, attended the hospital and obtained permission for sampling in the paediatric ward from the hospital authorities. The researcher explained the purpose and objectives of the study to the mothers of admitted children and obtained their written consent for participation in the study. The participants were also assured about the principles of anonymity and confidentiality of their personal information. The completion time of each questionnaire was 15-20 minutes, during which the researcher was a presence to answer the questions of participants on how to complete the questionnaire.

Spearman analysis correlation coefficient was used to examine the relationship between the concerns of mothers and mothers' needs. Also, the independent t-test was used to examine the difference between the concerns of mothers with mothers' needs and the child's gender and history of admission in the hospital, and the variance analysis was used to investigate the difference with mothers' education, child age, and mother age. The collected data were entered into SPSS software version 21 significance level of 0.05.

Findings

The mean age of mothers was 30.1 ± 5.4 years, and most of them (46.2%, $n = 74$) had under diploma education with 2.5% of them ($n = 4$) having MSc degree. In terms of mothers' occupation, 71.2% of the mothers ($n = 114$) were housewives, 13.1% ($N = 21$) self-employed, 11.9% ($N = 19$) Employee and 3.8% ($n = 6$) farmers. Also, 61.2% of them ($n = 98$) had the experience of child hospitalization, and 38.8% ($n = 62$) did not have such experiences. The mean age of hospitalized children was 3.68 ± 2.17 years and in terms of gender, most of them 55.6% ($n = 89$) were male and 44.4% ($n = 71$) were female. The mean duration of hospitalization of children was 2.5 ± 0.75 days.

Results

The mean and standard deviation of concern for parents with 6/16 + 5/4 indicated above.

Based on (Table 2), in terms of the relationship between mothers' concern with demographic information, the results of variance analysis showed no significant difference between the mothers' concern with mother's age ($P: 0.01$), with child's age ($p: 0.01$) and with mothers' education ($p: 0.35$). The sample t-test showed no significant difference between the mothers' concern with child's gender ($p: 0.30$) and with experience of child hospitalization ($p: 0.51$). (Table 2).

Table 1: The relationship between mothers' concerns with the needs of mothers of hospitalized children in hospital.

Variables	Mean \pm SD	P-Value
Parents' concerns	150.76 \pm 16.45	P : 0.006
Parents' needs	16.45 \pm 5.16	R : -0.21



Table 2: The comparison between mothers' concern and demographic characteristics of parents of children admitted to Hospital.

Mothers' concern			Mean ± SD	p-value
Demographic variables				
Mothers' age	Below 30	99	16.44 ± 5.34	P=0.01
	30-40	41	17.82 ± 5.11	
	Over 40	20	13.7 ± 3.14	
Mothers' education	Blow diploma	74	15.83 ± 5.1	P=0.35
	Diploma	46	17.08 ± 5.49	
	Associate diploma	17	16 ± 4.38	
	Bachelor's degree	19	16.89 ± 5.75	
	Post graduate	4	20.05 ± 4.35	
Experience of children hospitalization	Have	98	16.24 ± 4.84	P=0.51
	Do not have	62	16.79 ± 5.85	
Child's gender	female	71	16.92 ± 5.21	P=0.3
	Male	89	16.07 ± 5.15	
Child's age	01-Mar	99	16.44 ± 5.34	P=0.01
	03-May	41	17.82 ± 5.11	
	06-Dec	20	13.7 ± 3.14	

^aAnalyze of Variance (ANOVA), ^bIndependent sample t test

Table 3: The comparison between mothers' needs and demographic characteristics of parents of children admitted to Hospital.

Mothers' needs			Mean ± SD	p-value
Demographic variables				
Mothers age	Below 30	150.41 ± 24.16	P: 0.46 ^a	
	30-40	153.85 ± 21.96		
	Over 40	146.15 ± 21.08		
	Blow diploma	150.82 ± 23.21		
	Diploma	150.43 ± 21.26		
Mothers education	Associate diploma	150.04 ± 24.55	P: 0.09 ^a	
	Bachelor's degree	157.74 ± 24.5		
	Post graduate	122 ± 26.11		
Experience of children hospitalization	Have	152.85 ± 22.25	P: 0.09 ^b	
	Do not have	147.7 ± 24.5		
Childs gender	female	151.11 ± 23.65	P: 0.83 ^b	
	Male	150.32 ± 22.8		
Childs age	01-Mar	152.45 ± 24.31	P: 0.43 ^a	
	03-May	156.01 ± 22.7		
	06-Dec	147.75 ± 21.51		

^aAnalyze of Variance (ANOVA), ^bIndependent sample test

Based on (Table 3), Results of the study related to mothers' needs and demographic characteristics by ANOVA showed no significant difference between mothers' needs (p:0.46), child age (p: 0.43) and mothers' education (p:0.09). And the Independent t-test showed no significant difference between mothers' needs with child gender (p: 0.83), child hospitalization experience (p:0.09).

Discussion

The results of this study showed that the level of concern of parents of hospitalized children was moderate and their need was high. The highest need was in the "importance of parental need" dimension and the least in the "need help" dimension. That is, mothers of hospitalized children were aware of the importance of their needs but were less aware of the importance of need elimination compared to other dimensions. In other words, they were less aware of task descriptions and the role of Personnel in meeting needs. In studies by Bailey JJ, et al. (2010), they found that awareness of what actions are being taken for the patient is one of the most important needs, which reduces anxiety and increases satisfaction with the care received [18].

Along with the child's needs as the major caregiver client, the mothers' needs should also be addressed in order to meet the comprehensive needs of the child and the family, which forms the basis of the family-centered care [9]. The results of this study showed a high level of concern among mothers of hospitalized children. In other words, a mother who is experiencing the hospitalization of her child develops mental-emotional disturbances. On the other hand, entering an unfamiliar environment causes anxiety and fear, and limits the verbal expression of mothers in relation to their needs [10]. In this study, establishing a stressful relationship was a major barrier to trusting nurses. Ineffective communication, inappropriate communication with the child's age, and communication without ethical consideration (impatience, insult, and desecration) were the characteristics of a stressful relationship. This way, the resulting relationship becomes a source of fear and concern for mothers. Latour KM, et al. (2008), stated that effective and understandable communication can be beneficial to the child and reduces the stress and worries of parents [19]. Parents feel the need to express their emotions and want the nurses to be available for them, giving them the opportunity to express their feelings and emotions [20]. Nurses who play a supportive role for mothers are a contributing factor in relieving anxiety and stress of mothers [21]. Thompson VL, et al. (2003), stated that understanding parents and meeting their needs are important and increase the trust of parents in nurses [22].

The results of this study showed a high level of need for mothers of hospitalized children. So that the greatest need was the importance of parental need dimension and the least need was to help to satisfy the needs. That is, mothers of hospitalized children were much aware of the importance of their needs but were less aware of the importance of satisfying the need by the clinical staff compared to other dimensions. In other words, they were less aware of the task description and the role of clinical staff in satisfying the needs.

Findings showed that the most important mothers' needs were related to the sick child. For parents to be able to provide adequate care and support for their children and meet their physical and emotional needs, their needs arising from the child's illness must also be satisfied [23]. Along with the present article, showed that based on the understanding of the parents, the most important need group is the needs of the sick child, and the least important need group is the needs related to other family members. But Mirlashari J (2015) study, the most important satisfied needs and most important of them were perspective; information, support, guidance and counselling, comfort and convenience and the least was the need for participation within child care [24]. In Thompson VL, et al. (2003), study the most important needs in terms of personnel were the needs related to parental trust and then respectively, achieving information needs, needs for personnel to be trusted, the sick child and other family member's needs, comfort and convenience needs, and support and guidance needs [25]. The results of Sargent AN (2009) and Mundy CA (2010), showed that participants expressed the confidence territory as their most significant need [26,27].

The results are also in line with the study of Christie et al, which showed parental need as significant in this study [28]. Johnson AN (2007) believe that nursing supports such as commitment and effective care, skill in performing tasks, mothers participating in the care process, interest in nursing children, effective relationship, and trying to meet the needs of parents and children are effective factors in satisfying parental needs, especially in mutual trust context [21]. In the study by Bailey JJ, et al. (2010), the families who received more support, especially in the



field of information, were more satisfied than the others, and there was a significant relationship between the level of understanding of family information support and meeting needs and, subsequently, satisfaction with care [29]. In fact, one of the most important goals of nursing in the child ward is providing comprehensive care and increasing the best possible outcomes, which we need to understand mother's needs as the great importance for achieving these goals [6].

The results of this study showed that, with decreasing mother's concern, the level of the mother's needs decreases. By explaining the nature and cause of the disorder, nurses can correct the parents' misconceptions about themselves and their children, and reduce their perceived sense of guilt. This will increase the behavioural performance of children and their parents by reducing negative emotions, such as concern and facilitates better relationships with children, creating a feeling of happiness and liberation [30]. It will also reduce the stress and sense of parental insecurity and improves parent's satisfaction with nursing care [31]. The findings of this study showed no significant difference in the level of mothers' concern, mothers' needs and any of the demographic characteristics. In the study of Ionio C, et al. (2016), prolonged hospital stay was associated with higher levels of stress and more negative emotions such as anxiety, depression, and anger in mothers and fathers [32]. In the study of Lee SJ, et al. (2010), with increasing age, the amount of parental care decreased and there was no significant difference between maternal education and care burden [33]. Bowden VR, et al. (2008) showed that older parents had more need to be respected by the healthcare team and expected to be more involved in the care for their children [34]. Turchi RM, et al. (2007), found that parents with more experience of child hospitalization understand the importance of participation in care more than others, and are more sensitive towards the issues related to the care of children [35]. Findings of the study of Mitchell M, et al. (2009) showed that the higher the level of parental education, respect is the more important for them [28].

Conclusion

Parents are an important role child's care, and provision of family-based care requires certain level of sensitivity and understanding. Nurses' efforts to provide family-based care can be a way to alleviate parents' concerns and, subsequently, improve the quality of childcare. Therefore, it is recommended to conduct interventional studies in this field.

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References

- Nagata S, Taguchi A, Naruse T, Kuwahara Y, Murashima S (2013) Unmet needs for visiting nurse services among older people after hospital discharge and related factors in Japan: cross-sectional survey. *JPN J Nurs Sci* 10: 242-254. <https://doi.org/10.1111/jjns.12012>
- Reyhani T, Pourghaznain T, Mousavi Z, Ghorbani S (2014) The effects of presence and guidance of a teacher on the anxiety of hospitalized children. *Evidence Based Care* 4: 15-22.
- Wiener L, Battles H, Zadeh S, Pelletier W, Arruda-Colli MNF, et al. (2017) The perceived influence of childhood cancer on the parents' relationship. *Psycho Oncol* 26: 2109-2117. <https://doi.org/10.1002/pon.4313>
- Fahhah Tafti B, Hasanvand S, Salmani N (2016) study of the amount and tension causes of Hospitalized Preterm Infants' parents in Neonatal Intensive Care Unit. *Iran J Pediatr*

Nurs 3: 41-50. <http://dx.doi.org/10.21859/jpen-0301184>

- Khajeh M, Dehghan Nayeri N, Bahramnezhad F, Sadat Hoseini AS (2017) Family centered care of hospitalized children: A hybrid concept analysis in Iran. *Health Promot Perspect* 7: 210-215. <https://dx.doi.org/10.15171/hpp.2017.37>
- Wigert H, Hellström AL, Berg M (2008) Conditions for parents' participation in the care of their child in neonatal intensive care – a field study. *BMC Pediatrics* 8: 3. <https://doi.org/10.1186/1471-2431-8-3>
- Lyu QY, Wong FKY, You LM, Zhou XZ (2019) Unmet family needs concerning healthcare services in the setting of childhood hospitalization for cancer treatment in Mainland China: A qualitative study. *J Pediatric Nurs* 44: e66-e71. <https://doi.org/10.1016/j.pedn.2018.11.003>
- de Jong-Meyer R, Beck B, Riede K (2009) Relationships between rumination, worry, intolerance of uncertainty and metacognitive beliefs. *Pers Individ Differ* 46: 547-551. <https://doi.org/10.1016/j.paid.2008.12.010>
- Jee RA, Shepherd JR, Boyles CE, Marsh MJ, Thomas PW, et al. (2012) Evaluation and comparison of parental needs, stressors, and coping strategies in a pediatric intensive care unit. *Pediatr Crit Care Med* 13: e166-e175. <https://doi.org/10.1097/PCC.0b013e31823893ad>
- Donnelly JP, Downing K, Cloen J, Fragen P, Gupton AW, et al. (2018) Development and Assessment of a Measure of Parent and Child Needs in Pediatric Palliative Care. *J Pain Symp Manag* 55: 1077-1084.e2. <https://doi.org/10.1016/j.jpainsymman.2017.12.484>
- Salavati Ghasemi S, Cheraghi F, Hasan Tehrani T, Moghimbeigi A (2015) The effect of mothers' feeding behavior education on eating habits of their toddler children in Hamadan kindergartens. *Iran J Pediatr Nurs* 2: 68-79.
- Hashemipour M, Kelishadi R, Tavalaei Zavvareh SA, Ghatreh-Samani S (2012) Effect of education on anthropometric indices in obese parents and children after one year of follow-up. *ARYA Atheroscler* 8: 21-26.
- Hallstrom I, Elander G (2007) Families' needs when a child is long-term ill: a literature review with reference to nursing research. *Int J Nurs Pract* 13: 193-200. <https://doi.org/10.1111/j.1440-172X.2007.00625.x>
- Eshagh Afkari M, Ghasemi A, Shojaeizadeh D, Tol A, Rahimi Foroshani A, et al. (2013) Comparison between family function dimensions and quality of life among amphetamine addicts and non-addicts. *Iran Red Crescent Med J* 15: 356-362. <https://dx.doi.org/10.5812/ircmj.9947>
- Stremler R, Haddad S, Pullenayegum E, Parshuram C (2017) Psychological outcomes in parents of critically ill hospitalized children. *J Pediatric Nurs* 34: 36-43. <https://doi.org/10.1016/j.pedn.2017.01.012>
- Ahmadi M, Rassouli M, Karami M, Abasszadeh A, Poormansouri S (2018) Care burden and its related factors in parents of children with cancer. *Iran J Nurs* 31: 40-51. <http://dx.doi.org/10.29252/ijn.31.111.40>
- Bekmaz K, Hojjati H, Akhoundzadeh G (2019) Relationship between mothers' concerns and nursing support of children admitted to baqiyyatallah al-azam hospital of Ali Abad Katoul, Golestan Province, Iran, in 2018. *Modern Care J* 16: 3.
- Bailey JJ, Sabbagh M, Loiselle CG, Boileau J, McVey L (2010) Supporting families in the ICU: a descriptive correlational study of informational support, anxiety, and satisfaction with care. *Intens Crit Care Nurs* 26: 114-122. <https://doi.org/10.1016/j.iccn.2009.12.006>
- Latour JM, van Goudoever JB, Hazelzet JA (2008) Parent satisfaction in the pediatric ICU. *Pedia Clin North Am* 55: 779-790. <https://doi.org/10.1016/j.pcl.2008.02.013>
- Arabiat DH, Altamimi A (2013) Unmet care needs of parents of children with cancer in Jordan: implications for bed-side practice. *J Clin Nurs* 22: 531-539. <https://doi.org/10.1111/jocn.12122>
- Johnson AN (2007) The maternal experience of kangaroo holding. *J Obstet Gynecol Neonatal Nurs* 36: 568-573. <https://doi.org/10.1111/j.1552-6909.2007.00187.x>
- Thompson VL, Hupcey JE, Clark MB (2003) The development of trust in parents of hospitalized children. *J Spec Pediatr Nurs* 8: 137-147. <https://doi.org/10.1111/j.1088-145X.2003.00137.x>
- Shields L, Young J, McCann D (2008) The needs of parents of hospitalized children in Australia. *J Child Health Care* 12: 60-75. <https://doi.org/10.1177/1367493507085619>
- Mirlashari J, Sadeghi T, Sagheb S, Khanmohammadzadeh T (2015) Nurses' and physicians' Perspective about barriers to implement family centered care in neonatal intensive care units. *Iran J Nurs* 28: 140-150. <http://dx.doi.org/10.29252/ijn.28.93.94.140>
- Thompson VL, Hupcey JE, Clark MB (2003) The development of trust in parents of



- hospitalized children. *J Spec Pediatr Nurs* 8: 137-147.<https://doi.org/10.1111/j.1088-145X.2003.00137.x>
26. Sargent AN (2009) Predictors of needs in mothers with infants in the neonatal intensive care unit. *J Reprod Infant Psychol* 27: 195-205.<https://doi.org/10.1080/02646830802350849>
27. Mitchell M, Chaboyer W, Burmeister E, Foster M (2009) Positive effects of a nursing intervention on family-centered care in adult critical care. *Am J Crit Care* 18: 543-552. <https://doi.org/10.4037/ajcc2009226>
28. Bailey JJ, Sabbagh M, Loiselle CG, Boileau J, McVey L (2010) Supporting families in the ICU: a descriptive correlational study of informational support, anxiety, and satisfaction with care. *Intens Crit Care Nur* 26: 114-122.<https://doi.org/10.1016/j.iccn.2009.12.006>
29. Brown KW, Ryan RM, Creswell JD (2007) Mindfulness: Theoretical foundations and evidence for its salutary effects. *Psychol Inq* 18: 211-237.<https://doi.org/10.1080/10478400701598298>
30. Wigert H, Dellenmark MB, Bry K (2013) Strengths and weaknesses of parent-staff communication in the NICU: a survey assessment. *BMC Pediatr* 13: 71.<https://doi.org/10.1186/1471-2431-13-71>
31. Ionio C, Colombo C, Brazzoduro V, Mascheroni E, Confalonieri E, et al. (2016) Mothers and fathers in NICU: The impact of preterm birth on parental distress. *Eur J Psychol* 12: 604-621.<https://dx.doi.org/10.5964/ejop.v12i4.1093>
32. Lee SJ, Li L, Jiraphongsa C, Rotheram-Borus MJ (2010) Caregiver burden of family members of persons living with HIV in Thailand. *Int J Nurs Pract* 16: 57-63.<https://doi.org/10.1111/j.1440-172X.2009.01812.x>
33. Bowden VR, Greenberg CS (2008) *Pediatric nursing procedures*. Vicky R. Bowden, Cindy Smith Greenberg. 2nd (edn) Philadelphia: Lippincott Williams & Wilkins.
34. Turchi RM, Gatto M, Antonelli R (2007) Children and youth with special healthcare needs: there is no place like (a medical) home. *Curr Opin Paediatr* 19: 503-508.<https://doi.org/10.1097/MOP.0b013e32825a67b4>