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STRESS İN THE MOTHERS OF INFANTS WİTH CONGENİTAL GASTROİNTESTİNAL ANOMALİES

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ABSTRACT

Background: Hospitalization of the infants with anomaly for surgery is considered as a big stress for the mothers and family; so that, such stress affects the mother-infant interaction. In order to reduce the stress of mothers, the nurses have a significant responsibility. Thus, the present study is aimed to determine the level of stress in the mothers of the infants with congenital gastrointestinal anomalies hospitalized in the neonatal unit.

Material and Methods: The present study is a cross-sectional descriptive-correlational study. This study was conducted on 120 mothers whose infants had undergone surgery due to congenital gastrointestinal anomalies and had been hospitalized between June to November 2015 in the neonatal unit and neonatal intensive care unit in Tabriz. Data collection was performed using the Berry & Jones Stress Tool. The analysis of the obtained data was done by SPSS13 software using descriptive and inferential statistics methods, at the significance level of less than 0.05.

Results: In this study, the mothers' stress level (60/84) was obtained higher than the average score (54). Results showed that the mothers' stress level in least score (Strongly disagree) related to (If I had it to do over again, I might decide not to have child) with (31/7%) and then (Having child has been a financial burden) with (24/2%) and in most score (Strongly agree) related to (I enjoy spending time with my child) with (66/7%) and (I enjoy spending time with my child) with (61/7%).

Conclusion: Based on the results, mothers of the infants with congenital gastrointestinal anomalies experience high level of stress, it is suggested that the nurses working in neonatal units take an effective step to reduce the mothers' stress by taking into account their feelings and remove their concerns. It is also recommended that the nurses consider the family center care in their care plans by participating mothers in caring the infants to reduce the mothers' stress level.

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Introduction

Experience of being parents during the birth is the best experiences that are often associated with happiness and enjoyment, but sometimes the stress and anxiety associated with the disease of the newborn, individual and social factors or delayed development of newborns [1, 2, 3]. Especially the stress of hospitalization and even having babies surgery or require care in special resonance intensifies, why so the special section because of noise and appearance of the baby and the additional

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equipment that prevents the relationship of the parents with their baby out with stress is a lot [4]. Esmith study and colleagues (2007) showed that invasive interventions, the equipment and…were tension factors that parents of sick children at the time of admission, the encounter did not have only physical condition and appearance of the baby but more important is that they are critical of the baby's parents that will stress continuity [5, 6]. Parenting stress causes the parents, not accept the baby that condition so it is to promote parental stress [7, 8]. Parental stress or stress caused by parental designed by Richard Abidin hallmarks that include parents, children and environmental variables on the role of parent. Stressors parents in relation to their role of parental behavior affects experience and can prevent parent compatibility with existing conditions [9]. Parental stress as a psychological reaction against the wishes of his parents are parent that have negative feelings about themselves and their child [10].

Although parents have varying degrees of experience stress, but stress levels in parents of newborns with congenital anomalies is more than parents of healthy babies [11, 12]. Parents after child birth aroused have different roles and accept a lot of problems in relation to its role of mothers, the role of caregivers home and fathers, the role of provider will play in this mothers than fathers suffer in many hardships and difficulties [13, 14, 15]. Congenital anomalies has infant mortality structural and functional abnormality of the birth of some of the babies [16]. After diagnosis of infant with congenital anomalies, parents need information about infant's disease to aware with events suffer in the future because the more of parents not have sufficient information about infant's disease [17, 18].There are congenital anomalies such abnormality of the nervous system, face and neck, heart and respiratory, digestive and other organs in infants, especially if the babies are surgical and hospitalization for parents major stresses created so that the stress associated parent and child creates overlap [16, 19, 20], Therefore months after birth of infant with congenital anomalies is unacceptable for parents and they need individual and familial supports to prepare for infant care [21].

Parenting Stress is a pattern of relatively stable and gradually over a long time is increased in parents of children with congenital anomalies so that the activities of the parents affected will need urgent intervention and psychological support to help these parents take to reduce their stress [22, 23]. Rychick et al (2013) reported that the mothers who during prenatal period had congenital anomalies, they said that need more social and emotional support to adapt with current conditions [24]. Studies have shown that parents of children with congenital malformations, negative perception about the care of their children follow adverse consequences of individual (continuing concern, physical exhaustion, lack of independence), family and social (loss of communication with family and friends), Job (employment disputes)[25, 26, 27]. In addition to the negative perception of the parents, may have a positive perception that include personal growth, family cohesion, morale and spiritual beliefs [29, 30]. In some studies, the parents of malformed babies, complaints that they have not mentioned prominently in the care of their baby, which may be due to differences in parental perception. A number of recent studies have shown that fathers have abnormal babies, trying to play a supporting role for his wife so that the role of fathers in the care of the babies than mothers is not [31]. The stress in the family with baby needed surgery becomes particularly acute, in these circumstances, parents need to do to prepare children before surgery and care after the surgery , after surgery due to connecting ventilator , is unbearable accessories and drain the baby, change the baby and fluid appearance for parents [32, 33]. Infants need surgery, which is the separation of babies from their parents and also especial needs in this infants cause aggravate stress in the parent during the hospitalization but level of stress is highest in the families that not have financial and medical supportive [34].

Above show that mother's surgery, added stress to endure, because of the information of infants mothers with malformations of the digestive Iran, is not available. Therefore, this study aimed to determine the amount of stress in mothers of newborns with malformations of the digestive tract.

Material And Methods

The present study is a cross-sectional descriptive study conducted after establishment of the plan and obtaining the permission from the Research Deputy and the Ethics Committee of Tabriz University of Medical Sciences with ethical permission 12758 from June to November 2015 on 120 mothers whose children were hospitalized due to congenital gastrointestinal anomalies in the surgical ward of Tabriz Children Teaching Hospital. Lack of history of antidepressant and tobacco consumption in the mother, absence of chromosomal abnormalities in the infants, and tendency of the mother to participate in the study were the inclusion criteria of the study. 2-4 days after the infant surgery (depending on the type of surgery) and after explaining the research objectives and obtaining the written conscious consent, the questionnaires related to the demographic characteristics of mother and "stress" were completed through interview with the mother in a quiet and calm room.

Due to the lack of similar study and the necessity of accurate calculation of the sample size, after the pilot study on 30 mothers, the final sample size was estimated to include 120 people.

The stress level of the mothers was measured using Berry & Jones (1995) Stress Scale [35]. This tool measured the maternal stress level using eighteen 5-point Likert questions (1=strongly disagree, 2=Disagree, 3=No comment, 4=Agree, 5=strongly agree), and the scores ranged between 18-90 [22]. Finally, the parental stress was reported based on the average score.

In order to examine the validity of the stress questionnaire used in this study through the content method, the questionnaire was given to 10 experts and, after receiving their opinions, the necessary corrections were applied on the questionnaire. The

questionnaire was used after gaining the final approval of the Faculty Research Council; further, the validity of the translation was investigated by an English language expert. Examination of the reliability of the stress questionnaire was performed using the Cronbach's alpha, for which the scores of 0.73 was obtained.

The analysis of data was performed in SPSS13 software using descriptive and inferential statistics methods, at the significance level lower than 0.05.

In this study, most of the infants were boy (male) and singleton. 55.8% of the infants were hospitalized in the neonatal unit and 44.2% in the ICU. Esophageal atresia comprised the highest percentage (23.3%) of the surgeries among the infants. In this study, the average age of the infants was (7.56 ± 1.45) days; further, the average age of the mothers was 28.71 ± 5.74 years. 27.5% of the mothers had diploma and 85% of them were housewives.

In this study the level of the stress of the mothers of infants with congenital gastrointestinal anomalies and the total average of the stress of the mothers is shown in Table [1,2].

Results of the table showed that the mothers' stress level in least score (Strongly disagree) related to (If I had it to do over again, I might decide not to have child) with (31/7%) and then (Having child has been a financial burden) with (24/2%) and in most score (Strongly agree) related to (I enjoy spending time with my child) with (66/7%) and (I enjoy spending time with my child) with (61/7%). (table 1).

Table 1. frequency of the stress of mothers of infants with congenital gastrointestinal anomalies in Neonatal Wards 2015 (n=120)

Questions	Frequency (percent)					
	Strongly disagree	Disagree	Undecided	Agree	Strongly agree	Mean ± standard deviation
1. I am happy in my role as a parent.	(2/5) 3	(3/4) 4	(1/7) 2	(39/8) 47	(52/5) 62	3/74 ± 1/45
2. There is little or no thing I wouldn't do for my child if it was necessary.	(3/4) 4	(5/1) 6	(25/4) 30	(40/7) 48	(25/4) 30	3/80 ± 0/99
3. Caring for my child sometimes takes more time and energy than I have to give.	(2/6) 3	(14/7) 17	(13/8) 16	(45/7) 53	(23/3) 27	3/72 ± 1/06
4. I sometimes worry whether I am doing enough for my child.	(2/6) 3	(9/4) 11	(7/7) 9	(61/5) 72	(18/8) 22	3/85 ± 0/92
5. I feel close to my child.	(0) 0	(3/4) 4	(2/5) 3	(41/5) 49	(52/5) 62	3/67 ± 1/45
6. I enjoy spending time with my child.	(0/8) 1	(1/7) 2	(7/6) 9	(27/7) 33	(62/2) 74	4/00 ± 1/35
7. My child is an important source of affection for me.	(0) 0	(0/9) 1	(2/6) 3	(36/5) 42	(60) 69	3/84 ± 1/44
8. Having child gives me a more certain and optimistic view for the future.	(1/7) 2	(11/9) 14	(6/8) 8	(28/8) 34	(50/8) 60	3/88 ± 1/32
9. The major source of stress in my life is my child.	(11/9) 14	(22/9) 27	(11) 13	(32/2) 38	(22) 26	3/30 ± 1/35

10. Having child leaves little time and flexibility in my life.	(15/8) 18	(31/6) 36	(18/4) 21	(29/8) 34	(4/4) 5	2/75 ± 1/17
11. Having child has been a financial burden.	(25) 29	(26/7) 31	(18/1) 21	(25/9) 30	(4/3) 5	2/58 ± 1/23
12. It is difficult to balance different responsibilities because of my child.	(11/1) 13	(23/1) 27	(23/9) 28	(37/6) 44	(4/3) 5	3/01 ± 1/11
13. The behaviour of my child is often embarrassing or stressful to me.	(4/3) 5	(20) 23	(15/7) 18	(51/3) 59	(8/7) 10	3/40 ± 1/04
14. If I had it to do over again, I might decide not to have child.	(32/5) 38	(29/1)34	(17/1) 20	(14/5) 17	(6/8) 8	2/34 ± 1/26
15. I feel overwhelmed by the responsibility of being a parent.	(13) 15	(26/1) 30	(10/4) 12	(31/3) 36	(19/1) 22	3/17 ± 1/35
16. Having child has meant having too few choices and too little control over my life.	(13/8) 16	(22/4) 26	(17/2) 20	(37/9) 44	(8/6) 10	3/05 ± 1/22
17. I am satisfied as a parent.	(0/8) 1	(4/2) 5	(7/6) 9	(38/37) 46	(48/7) 58	3/65 ± 1/41
18. I find my child enjoyable.	(0/8) 1	(1/7) 2	(3/4) 4	(26/9) 32	(67/2) 80	4/11 ± 1/33
Total stress						**60/84 ± 8/33**

In this study, the mothers' stress level (60/84) was obtained higher than the average score [54]. (Table 2).

Table2. Mean and standard deviation of the stress of mothers of infants with congenital gastrointestinal anomalies

Variable	Mean ± standard deviation	Range of scores in questionnaire	Average score
Total stress	60/84 ± 8/336	18 - 90	54

Discussion And Conclusion

In this study, the mothers' stress level was obtained higher than the average score. In a study in Malaysia conducted on 147 mothers to investigate the stress level in mothers of the infants with Down syndrome using Berry & Jones Stress Tool, Norizan and Shamsuddin (2010) showed that the stress level in these mothers is higher than in the mothers of the healthy infants [36].

In a study by Ana Fonseca et al (2015) in Portugal aimed at identifying the perception of positive and negative parental relationship with congenital anomalies and its association with parental stress on 43 mothers and 36 fathers were performed, results show the parents that had negative perception about infant's anomalies have high level of stress compared to those who had positive perception, So that, mothers compared to fathers had less level of positive perception and high level of stress [37].

Further, Cheung (2014), who investigated the effect of the educational programs on reduction of the mothers' stress using Berry & Jones Stress Tool, announced a low level of post-intervention stress in mothers [38].

The results showed that this study have high levels of maternal stress, A study with nurses and mothers viewpoint about ways reduce stress in mothers of infants with gastrointestinal disorders should be managed. Due to less of samples in our

study, we investigate both obvious and hidden anomalies, Therefore it is suggested that investigate the mother's stress in this anomalies separately in the other studies. The sample size of our study and use of tools in our study possibly influenced the results, Therefore it is recommended that the study be done with larger sample sizes and use other tools.

Conclusion

Based on the results, mothers of the infants with congenital gastrointestinal anomalies experience high level of stress, it is suggested that the nurses working in neonatal units take an effective step to reduce the mothers' stress by taking into account their feelings and remove their concerns. It is also recommended that the nurses consider the family-based care in their care plans by participating mothers in caring the infants. Thus, appropriate planning for improving the professional nursing supports for parents, especially for mother of the infants with congenital gastrointestinal anomalies, is necessary to provide the infants with high-quality cares.

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Conflicts of interests

There were no conflicts of interests.

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