

## Maternal Coping with Hospitalization of Neonates at Intensive Care Unit

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### Abstract:

**Background:** Coping affects self-regulation of emotions, cognitions, behaviors, and motivational orientation. **Aims of study:** Was to assess maternal coping with hospitalization of neonates at Intensive Care Units. **Research design:** A descriptive research design was utilized to conduct the study. **Setting:** this study was conducted at Neonatal Intensive Care Unit at ELShohada Hospital in Menoufia and Benha University Hospital. **Sample:** A convenience sampling of 225 mothers' of hospitalized at neonatal intensive care unit was selected. **Tools:** Four tools were used: **Tool I:** A structured interviewing questionnaire for mothers characteristics and their neonates. **Tool II:** Beck Depression Scale. **Tool III:** Spielberger Anxiety Scale. **Tool IV:** Coping Process Likert Scale. **Results:** More than half of studied mother had poor coping mechanism, mothers was suffering from severe level of anxiety and mild depression. **Conclusion:** Mothers of hospitalized neonate had severe level of anxiety, mild depression. Most common coping mechanisms were turning to religion, wishful thinking and exercise of restrain. The least commonly used process was denial. **Recommendations:** In-service educational program must be designed for nurses about mothers coping with hospitalization of neonates and nursing strategies that can enhance and facilitate their coping

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**Key words:** Hospitalization of neonate, Maternal coping

### Introduction

The neonatal period birth lasts for 28 days is a time of extensive and ongoing system transition from uterine environment to external world, this includes the initial period after birth which is referred to the perinatal period. It would seem obvious to say that development does not stop at birth. In fact many systems such as (cardiovascular, respiratory, gastrointestinal, homeostasis) undergo significant changes at birth, and many others neural have not yet completed their development during perinatal period (Hill, 2019).

The hospitalization of neonates make mothers experience several and often

contradictory emotional reactions, such as grief, sadness, guilt, fear, anger, loss of self-esteem, and sense of failure. In fact, this situation can be so overwhelming for mothers that they might react by emotionally distancing themselves from their babies. These emotional factors might negatively affect the mothers' ideas, thoughts, and representations about the neonates appearance and behavior (Aitugulova, 2020).

Mothers' coping may depend on the condition of their neonates, and how they are attached to their babies while being admitted. Again the mothers' relationship with healthcare professionals as well as with significant others such as family members,

husbands and their in-laws may affect their ability to coping (Adama et al., 2016).

Nurses provide psychological support to the neonates' mothers who increased the difficulty and pressure of the work. Better cooperation in nursing team was also required. Therefore, the nurses in NICU must have seasoned knowledge, working experience to alleviate maternal stress and the huge work tasks, and good coping strategies must be drawn up (Yufei & Shuyan, 2020).

### **Significance of the study:**

Nowadays, many neonates are globally admitted at Neonatal Intensive Care Units for a variety of reasons such as respiratory distress, sepsis, jaundice, apnea, intracranial hemorrhage and congenital anomalies. So admission at Neonatal Intensive Care Units (NICUs) predisposes mothers to stress and trauma. Stress may limit mothers' abilities to provide care. According to information provided from central statistical offices at Benha University Hospital and from El Shohda Central Hospital in Menoufia (2019), a number of 800 and 450 neonates were admitted at the NICUs in the two hospitals. These mothers were in need to cope with the changing state of responsibility in their lives (Gautam & Vishwakarma, 2020). For this reason, this study will be carried out to assess maternal coping with hospitalization of neonates at two intensive care units.

### **Aim of the study:**

The aim of the study was to assess maternal coping with hospitalization of neonates at intensive care units.

### **Research questions:**

1-What are the coping strategies of mothers' with hospitalization neonates at intensive care units?

### **Subject and Methods:**

#### **Research design:**

A descriptive design was utilized to conduct from this study.

#### **Research settings:**

The study was conducted at Neonatal Intensive Care Units at ELShohda Hospital of Menoufia. It is affiliated to the Ministry of Health and population in ELShohda hospital. Neonatal Intensive Care Units consisted of two rooms and each room included eight incubators. Meanwhile, the neonatal intensive care unit in Benha hospital contained three rooms. One room was specialized for neonatal surgery which consisted of eight incubators. Another room was specialized for neonatal jaundice. It included five incubators. The third room was specialized for premature neonates and included 25 incubators.

#### **Research Sampling:**

A convenience sampling of 225 mothers was selected. Data was collected from 130 mothers' of hospitalized Neonates at neonatal intensive care unit of ELShohda and 95 mothers of Benha University Hospital were selected.

#### **Tools for data collection:**

**Data of the current study was collected by using the following four tools:**

**Tool I: A structured interviewing questionnaire sheet:**

It was developed by the researcher after reviewing recent literature. It was written in Arabic language. It contained the following.

#### **Part 1: Personal data of mothers':**

It included age, occupation, level of education, place of residence and social status.

#### **Part 2: Personal data of neonates:**

a- Personal data of neonates included gestational age, gender, weight at birth and birth order.

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b- Medical data sheet included diagnoses, type of delivery, respiratory support.

### **Tool II: Beck Depression Scale:**

It was developed by **Beck (1961)** and translated into Arabic by **Ghareeb (2015)**. It was adopted by the researcher. This tool was used to assess the severity of depression among mothers of hospitalized neonates in neonatal intensive care units. It contained 13 items about adjustment. **The total score** of depression Scale ranged from zero (minimum) to 39 (maximum).

### **Tool III: Spielberger Anxiety Scale:**

It is developed by **Spielberger (1989)** and translated to Arabic to by **Ghareeb (2015)**. It was adopted by the researcher. This tool was used to assess Anxiety among mothers of hospitalized neonates in neonatal intensive care units. It contained 20 items. Each item was rated on a 4 point scale ranging from 1 to 4 points. **The total score** of Anxiety scale ranged from 20 (minimum) to 80 (maximum).

#### **Scoring system:**

Never	1
Sometimes	2
Much	3
Usually	4

### **Tool IV: Coping Process Likert Scale:**

It was developed by **Lotfi Abd El Baset (1994)**. It was adopted by the researcher to assess the coping strategies among mothers of hospitalized neonates in the neonatal intensive care units. It contained 42 items divided into 11 items. Each item was rated on a 4 point scale ranging from 1 to 4 points. The total score of coping scale ranged from 42 (minimum) to 168 (maximum).

#### **Scoring system:**

Scoring answers	Score
Disagree	1
Somewhat agree	2
Generally agree	3
Agree	4

### **Tools validity:**

Tools were submitted to a jury of five experts (one professor in pediatric nursing faculty of nursing at Benha University and four assistant professors in (pediatric nursing)). All required modifications were done. This phase took about one month from beginning of August, 2020 till the end August, 2020.

### **Tools Reliability:**

Internal consistency of the tools was evaluated by using Cronbach's coefficient alpha. In tool two (Depression scale)  $\alpha = 0.845$ , in tool three (Anxiety scale)  $\alpha = 0.924$  and tool four (Coping scale  $\alpha = 0.917$ ).

### **Ethical considerations:**

A permission of Faculty of Nursing at Benha university Ethical research committee was obtained. Written informed consent was obtained from mothers of neonates related to their acceptance to share in the study before data collection. Method of data collection was explained to mothers. Each mother was assured of the confidentiality of data and data of neonate.

### **Pilot study:**

It was carried on a sample of 10% of the expected sample size (25 mothers) of hospitalized neonate to evaluate the reliability and applicability of the tools and estimate the time required for answering the questionnaire. The tools were modified according to the results of the pilot study and experts' opinions. This phase took one week in September, 2020.

### **Field work:**

The process of data collection was carried out over a period of almost three months from September, 2020 to the end of November, 2020. The data was collected from the previously mentioned. The researcher was available in the study setting by rotation 2 days weekly every Monday in the morning from 9 am to 12 pm in El Shohda hospital and

from 9am to 12 pm every Thursday in Benha hospital.

#### **Statistical analysis:**

The collected data was organized, coded, categorized, analyzed and tabulated using Statistical Package for Social Science (SPSS) version 20. Graphics were done using Excel program. Quantitative data was expressed as mean and standard deviation, while Qualitative data was expressed as percentage. Statistical test such as chi-square ( $\chi^2$ ) was used for determining statistical significant differences between El Shohda and Benha hospital. Paired ttest was used for comparison between means of two groups. Pearson correlation coefficient (r) was used for correlation analysis. A statistical significant difference was considered if p-value  $\leq 0.05$ - 0.01, a highly statistical significant difference was considered if p-value  $< 0.01$ - 0.001, a very highly statistical significant difference was considered if p-value  $< 0.001$  and no statistical significant difference was considered if p-value  $> 0.05$ .

#### **Results**

**Figure (1):** Illustrates that more than third of them (37.7%) had severe anxiety in El Shohda group as compared to less than third (30.5%) in **Benha**. Also, it illustrates that less than one quarter of mothers (17.7% & 15.8%) had normal anxiety in ElShohda and Benha groups.

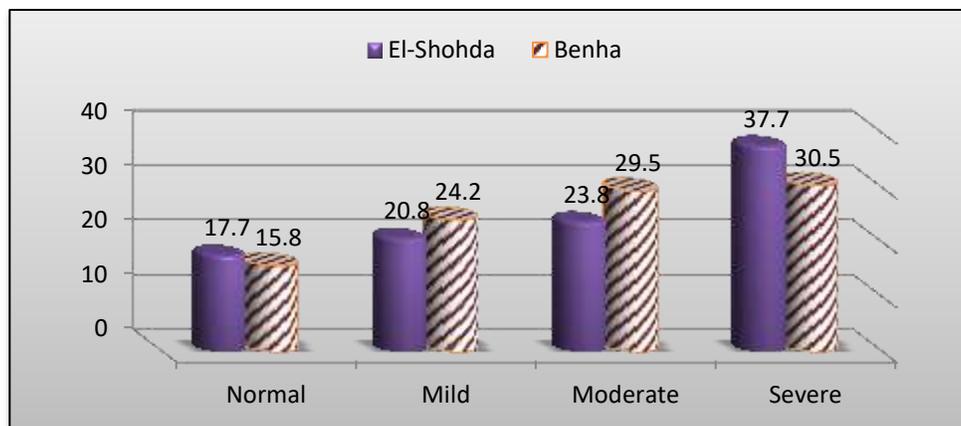
**Figure (2):** Illustrates that less than half of mothers in El Shohada and Benha (43.8% & 45.3%) had mild depression , Also less than one **quarter** of them (16.2% & 15.8%) had severe depression in Elshohda and Benha.

**Table (1):** Shows mean and standard deviation of coping strategies followed by mothers in El Shoda and Benha groups the most commonly used coping process was turning to religion. The second coping strategy was turning to wishful thinking. The

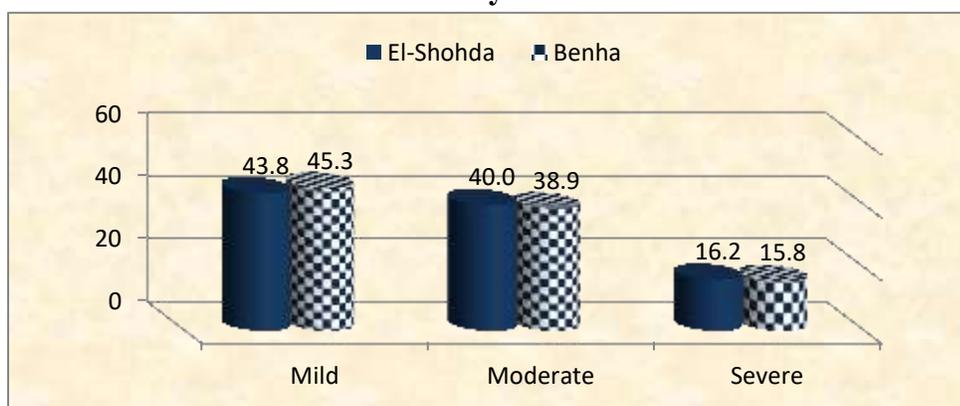
least commonly used process was denial then, the second less common was negativism and self-blame and mental disengagement is the third less commonly used.

**Table (2):** Shows that there were very highly statistical significant negative correlations between levels of coping, anxiety, and depression. Also, there were **very** highly statistical positive correlation s between levels of anxiety and depression among studied mothers in Elshoda and Benha groups.

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**Figure (1): Distribution of studied mothers (El Shoda and Benha groups) according to their level of anxiety**



**Figure (2): Distribution of studied mothers (ElShoda and Benha groups) regarding total score of depression scale (n= 225)**

**Table (1): Mean and standard deviation of coping strategies followed by mothers in El Shohda and Benha groups.**

	Min	Max	Mean	±SD	%score	Ranking
• Total turning to religion	4.00	12.00	10.36	±1.85	86.3	1
• Total wishful thinking	6.00	18.00	10.34	±2.98	57.4	2
• Total exercise of restraint	4.00	16.00	9.10	±3.52	56.9	3
• Total seeking out information and social support	4.00	16.00	8.66	±2.98	54.1	4
• Total active coping	3.00	12.00	6.45	±2.66	53.8	5
• Total acceptance	3.00	12.00	6.39	±2.77	53.3	6
• Total positive reinterpretation	3.00	12.00	6.33	±2.30	52.8	7
• Total emotional discharge	3.00	12.00	6.30	±2.43	52.5	8
• Total mental disengagement	5.00	20.00	10.00	±3.70	50.0	9
• Total negativism and self-blame	3.00	12.00	5.80	±2.31	48.3	10
• Total denial	5.00	20.00	9.35	±3.09	46.8	11

**Table (2): Correlation between coping, anxiety, and depression among studied mothers (El Shohda and Benha groups)**

	El Shohda			Benha			
		Total coping	Total anxiety	Total depression	Total coping	Total anxiety	Total depression
Total coping	R	1	-.885	-.711	1	-.865	-.74
	p-value		.000**	.000**		.000**	.000**
	N	130	130	130	95	95	95
Total anxiety	R	-.885	1	.807	-.865	1	.81
	p-value	.000**		.000**	.000**		.000**
	N	130	130	130	95	95	95
Total depression	R	-.711	.807	1	-.742	.811	1
	p-value	.000**	.000**		.000**	.000**	
	N	130	130	130	95	95	95

**Discussion**

Having a hospitalized newborn is one of the most stressful conditions for mothers. Mothers may be overwhelmed with the stress of illness, worry for their infant’s future and complex medical information while trying to balance their family demands and maintain some continuity in their daily activities. As they face these stressors, they must find ways to cope with this and maintain stability (**Prouhet et al., 2018**).

Coping is defined as a dynamic process of what an individual thinks or does to manage stressful or unpleasant events or processes. By coping, one maintains emotional equilibrium (emotion-focused coping) and is also able to execute effective decision making (problem-focused coping). Thus, coping strategies involve both experience and action (**Nazari et al., 2020**).

Distribution of studied mothers regarding to the level of anxiety, the findings of the current study showed that the majority of the studied mothers were suffering from severe

level of anxiety. These findings were in the same line with **Heydarpoor et al., (2019)** in Tabriz, Iran in a study entitled "Evaluation of Maternal Anxiety in Mothers of Infants Admitted to the Neonatal Intensive Care Unit". It was found that that mothers had severe level of state anxiety. This could be attributed to the mothers’ negative feeling towards having a hospitalized neonate. This could mean that mothers were more liable to psychological and physiological transient reactions directly related to adverse situations in a specific moment.

In contrast, the present results disagreed with the results of a study done by **Segre et al., (2014)** about "Depression and Anxiety Symptoms in Mothers of Newborns Hospitalized on the Neonatal Intensive Care Unit". It was found that 25.5% of NICU mothers reported clinically significant symptoms of anxiety.

This could be attributed to differences in locations. Perhaps hospital in these locations prepare mothers for the hospitalizations of their neonates. Also, some studies were conducted in Egypt and revealed that mothers has low levels

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of satisfactions regarding care that was provided for their neonates at NICUs (**Younis, 2020**). Satisfaction of quality of care perhaps could influence mothers coping with hospitalization of neonates.

Distribution of studied mothers according to their level of depression. In this study, some mothers explained that they felt sad, discouraged about the future, felt like failure and would kill themselves if they got the chance. Therefore, the findings of the current study showed that less than half of the studied mothers were suffering from mild depression, Approximately 15.0% and 16.0 % had severe depression.

These findings were in the same line with the results of a study done by **Shiab EIDin et al., (2020)** in Tanta, Egypt, study was entitled "Assessment of Depression and Stress Symptoms among Mothers of Premature Infants Admitted to Neonatal Intensive Care Unit". They found that 45% of studied mothers had mild anxiety . This could be attributed to increased mothers' level of anxiety and feelings of separation from their neonates.

Concerning mean and standard deviation of studied mothers regarding total coping item, the results of current study illustrated that the most commonly coping process used was turning to religion then the second is turning to wishful thinking and the third one is exercise of restraint. The least commonly used process is denial then the second less common is negative and self-blame and mental disengagement is the third less commonly used. This could be attributed to the religious nature of people in these societies

These findings were supported by the results of a study done by **Abdelsalam, (2017)**

in Beni-Suef, Egypt, "Parental Coping with Newborn Admission in The Neonatal Intensive Care Unit". It was revealed that spiritual support and maintaining hope were the most frequently used coping strategies. Having faith, thinking positively, and possessing hope were factors that were identified as facilitating mothers' abilities to cope within. The least commonly used process was denial. The second process was negative and self-blame. Mental disengagement was the third one. This was done by praying and performing the religious requirements.

The study was also consistent with **Carolyn, (2015)** in North Carolina, United States, about parental stress and coping during hospitalization of their child It was found that the most common coping process was turning to religion and the least commonly used is process was denial. This similarity could be attributed to the similarity in their faith and religious beliefs.

The results weren't in agreement with a study done by **Lian et al., (2020)** in Singapore, in a study about "An active pursuit of reassurance coping strategies of parents with infants in the Neonatal Intensive Care Unit". It was found that coping strategies were pursuing information, bonding with the infant for normalcy, and seeking emotional support in the midst of anxiety.

Regarding correlation between coping, anxiety, and depression among studied mothers, the study reflected that there were very highly statistical significant negative correlations between levels of coping, anxiety, and depression. Also, there were very highly statistical significant positive correlations between levels of anxiety and depression among studied mothers. This result was in the

same line with a study carried out by **Gourounti et al., (2013)** in Macedonia, Greece " Coping strategies as psychological risk factor for antenatal anxiety, worries, and depression among Greek women." It was found that there were negative correlations between coping strategies anxiety, depression, and worries

### **Conclusion**

Mothers of hospitalized neonate were suffering from severe level of anxiety, less than half of them were suffering from mild depression. The most common coping strategies were ranked as follows total turning to religion, total wishful thinking, total exercise of restraint, total seeking out information and social support, total active coping, total acceptance, total positive reinterpretation, total emotional discharge, total mental disengagement, total negativism and self blame ended by total denial (least utilized coping strategy). The study reflected that there were very highly statistical significant negative correlations between levels of coping, anxiety, and depression. Also, there were very highly statistical positive correlations between levels of anxiety and depression among studied mothers.

### **Recommendation:**

#### **A. For nursing research:**

- 1- Further researches should be conducted in other settings and on larger sample size in order to compare between their results and results of the current study.
- 2- Researches should be undertaken to differentiate and identify the most useful strategies that can be used to help mothers to cope with hospitalization of their neonates.
- 3- Researches should be conducted to evaluate the impact of social, family and financial

support on mothers coping with hospitalization of neonates.

#### **B. For nursing education:**

1- In service educational programs should be provided for nurses about mothers coping with hospitalization of their neonates and nursing strategies that can enhance and facilitate their coping.

2- Undergraduate and postgraduate pediatric nursing programs should include the psychological impact of hospitalization on mothers and nurses role to facilitate their coping.

#### **C. For nursing practice:**

1- Mothers should be help in care for their neonates (breastfeed, touch, provide kangaroo care or physical care) as much as possible.

2- Mothers should be provided with health education about the condition of neonates, their care and surrounding equipment.

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## تكيف الأمهات مع الأطفال حديثي الولادة بالعناية المركزة في المستشفى

هدير عفيفي محمد محفوظ- مها إبراهيم خليفة - باسمة ربيع عبد الصادق- حنان نبوي الأعصر

يؤثر التكيف على التنظيم الذاتي للعواطف والإدراك والسلوكيات والتوجه التحفيزي. لذلك هدفت الدراسة الي تقييم تكيف الأمهات مع اطفالهم بوحدة العناية المركزة بالمستشفى. وقد اجريت هذه الدراسة في وحدة العناية المركزة بمستشفى الشهداء المركزي ومستشفى بنها الجامعي على عدد ٢٢٥ من الامهات اللاتي تم حجز اطفالهن بالعناية المركزة. حيث أوضحت الدراسة أن الغالبية العظمى من الأمهات الخاضعات للدراسة كانت تعاني من ضعف التكيف ومستوى شديد من القلق، أقل من نصف الأمهات الخاضعات للدراسة كانت تعاني من اكتئاب خفيف. كما أوضحت الدراسة الحالية أن استراتيجيات التكيف الأكثر استخدامًا هي التحول إلى الدين و كانت استراتيجيات التكيف الثانية هي التفكير الإيجابي. بينما كانت أقل الاستراتيجيات استخدامًا هي الإنكار، أما الاستراتيجية الثانية الأقل شيوعًا فهي السلبية ولوم الذات والانسحاب المعرفي هو الثالث الأقل شيوعًا. واوصت الدراسة بتصميم برنامج تعليمي للممرضات حول استراتيجيات التكيف لمساعدة الأمهات اللاتي تم دخول أطفالهم حديثي الولادة في المستشفى .