

# Maternal Anxiety Levels with Newborns in the Neonatal Intensive Care Unit at Hilla Maternity and Childbirth Hospital in AL-Hilla City

Abdulmahdi A. Hasan

Ass prof, Psychiatric & Mental Health Nursing, College of Nursing, Babylon University

## Abstract

**Aims:** To comparing maternal anxiety levels for infants in the NICU and mother in the postnatal care-service (PCS) for stable newborns. **Methodology** This descriptive study was carried out in Al-Hilla Children's and Birth Hospital, Al-Hilla City. The 1<sup>st</sup> 200 families, counting pregnant mother in personal care services (n=100) and pregnant women in neonatal intensive care unit (n=100), backed up by participant as of May, 2018. As data gathering tools, including the STAI TX-1-STAI TX-2 inventory, questionnaires were used to detect the characteristic of mother and newborn. **Results** Characteristic rates of anxiety were not substantially different between NICU neonate mothers and PCS neonate mothers ( $t = 0.588$ ,  $p = 0.557$ ), while status level of anxiety varied greatly among the 2 classes ( $t = -5.109$ ,  $p < 0.001$ ). Motherland anxiety level were determined to be higher for mother whose children in the NICU compared with those of mother whose children were on personal care-services. **Conclusion** It can boost anxiety and lead to mothers being a mother to a newborn sick. During this difficult time, nursing care may rise mothers' ability to deal with the sick stresses of the newborn

**Keywords:** Maternal, Anxiety, Newborn

## Introduction

NICU concenter as a frightening place for parent because it's loud, humid and crowded; however, sophisticated surgical technology and complicated medical terminology are obstacles for parent and newborn<sup>(1)</sup>. Parent, particularly newborn mother living at NICU, may have a psychological problem with having a sick child and may think of losing their child and failing. Achieving conventional positions in parenting.<sup>(2-4)</sup> Lack of an appropriate environment in which mother can meet their children's physiological needs (nutrition, drinking, sleep, etc.), In addition to their child's illness, lack of detail on therapies and medical operations, poor communication with healthcare workers and not taking part in childcare, poor social support to high levels of anxiety<sup>(5,6)</sup>

## Techniques

This descriptive study was carried out in hospitals of Maternity and Childbirth situated in Babylon, Iraq. Energy analysis was used to decide the size of sample;

as a result of an energy investigation established on an earlier Yurdakul et al study. For each group of 95 mothers, this study identified 85 per cent of power<sup>(7)</sup>. By assessing the 1<sup>st</sup> 100 mothers inside every group (PCS or NICU) who decided to take part in this research, this study reached 86 percent energy.

## Tools of data-collection

Tool for data-collection involved a concise questionnaire model developed by Literature<sup>5-7-10</sup> and the General Status Anxiety Inventory (STAI TX 1 – STAI TX 2) to assess level of maternal anxiety. Hospitals had obtained the requisite permits for this report. Participants received informed consent. The descriptive questionnaire helps to evaluate mothers' social and ethnic characteristics, as well as certain newborn characteristics. The additional descriptive questionnaire focused on maternal beliefs about the NICU and their child's condition within the NICU. General Status Anxiety Inventory (STAI TX 1 –STAI TX 2)

· Case Anxiety Inventory: such a measure defines whether a person feels in a given location or situation.

· The Inventory of Trait Anxiety: such a standard analytical methods how a person feels regardless of facts of the case.

A type Likert scale, established through Spielberger et al. It is composed of forty items: twenty items measured by state anxiety, and twenty items measured by anxiety apps. On each measure the cumulative score obtained was measured separately. To this value was added a predefined and unfixed number; this number was fifty for country anxiety, and 35 for anxiety attribute. The consequence was the individual degree of anxiety. (11) Orener and Lumbeti adapted that meter to Arabic in 1983. (12).

**Analysis and Data collection**

Hospital and unit where this research was carried out obtained written permission and approval. Samples were knowledgeable of the purpose of the study and their oral informed consent was attained prior to the beginning of the study. During personal interviews, the researchers were given instruments for the data collection to participants. IBM SPSS 2 assessed the data obtained from the study

**Results**

**Table 1: Socio demographical Characteristics of sample.**

There’s a significant dissimilarity in the State anxiety rating level for 2 classes of mothers. State anxiety level were determined to be higher for mother whose children were in the neonatal natal intensive care unit related to those were in PCS.

**Table 2: State Trait Anxiety Levels of Mothers.**

	<b>Mothers with newborns in a NICU</b>	<b>Mothers with a newborns in a PCS</b>	
	<b>Mean±SD</b>	<b>Mean±SD</b>	<b>T-test</b>
State Anxiety Levels	48.20±6.56	43.41±6.61	-5.109*, <0.001*
Trait Anxiety Levels	40.16±5.48	39.68±5.99	.588, 0.557

\*p<0.05

There’s no significant association among socio demographical-characteristic (age , level of educational , employment status and level of income), trend and state level of anxiety between mother whose children were in NICU and PCS. There was an important link between

the involvement of help networks in the NICU and the state rates of mothers with children. By many mothers who had newborn babies in the NICU there have been significantly higher levels of public anxiety reported by those without a support system than those with the aid systems.

**Table3: Distribution of a “state-trait level of anxiety” by mother variables.**

		Mother with newborn in a NICU		Mother with newborn in a PCS	
		STAI TX-1	STAI TX-2	STAI TX-1	STAI TX-2
Age	r	0.102	-0.110	-0.132	-0.026
	p	0.312	0.275	0.191	0.799
		Mean±SD	Mean ±SD	Mean ±SD	Mean ± SD
<i>Level of Educational</i>					
Primary School		48.40±6.49	40.03±6.20	43.96±6.91	40.74±5.32
High School		46.37±7.24	38.03±5.46	42.72±6.44	39.73±6.16
University		50.28±5.49	39.57±7.24	40.28±4.46	35.71±1.70
		F=1.009,p=0.369	F=0.740,p=0.480	$\chi^2$ KW=.081,p=0.961	$\chi^2$ KW=2.86,p=0.239
<i>Occupation</i>					
Working		48.75±6.69	39.04±5.05	42.28±5.39	39.12±4.54
Not working		48.16±6.58	40.32±5.55	43.58±6.87	39.73±6.12
		t=0.242,p=0.809	t=1.460,p=0.155	U=481.50,p=0.388	U=389.50,p=0.784
<i>Level of Income</i>					
Bad		46.80±7.81	41.37±2.92	43.16±5.11	37.60±6.46
Moderate		49.09±6.73	39.62±5.82	44.02±6.93	40.00±6.31
Good		45.43±4.03	41.67±4.54	41.37±6.03	39.56±4.17
		F=2.580,p=0.081	F=1.294,p=0.279	F=1.288,p=0.280	$\chi^2$ KW=0.740,p=0.691
<i>Supporting Systems Presence</i>					
Yes		45.60±5.68	40.03±5.46	43.16±6.42	39.07±3.79
No		49.60±6.61	39.44±3.84	44.22±7.58	38.01±2.90
		t=3.027,p=0.003*	U=821.00,p=0.462	U=885.00,p=0.827	U=1062.00,p=0.584

\*p&lt;0.05

There's no significant relation seen amongst baby's gender and birth weight with the NICU mothers' state-trait anxiety rates (Table-IV). There's also no correlation between both the NICU mothers' trait anxiety levels and the duration of hospitalization, The status of the child's situation and the participation status in child care (p>0.05); there was a positive correlation seen concerning mothers' state anxiety levels and those character traits.

**Table 5: “State-Trait Anxiety Levels” according to the characteristic of the child.**

Birth Weight				
	≤2500 gram (n=35)	>2500 gram (n=65)		
	Mean ± SD	Mean ± SD		
STAI TX-1	48.61±5.70	48.31±7.21	U=1089.00, p=0.725	
STAI TX-2	39.89±4.78	40.30±5.85	U=1006.00, p=0.341	
Gender				
	Female	Male		
	Mean ± SD	Mean ± SD		
STAI TX-1	47.97±7.13	48.71±6.42	U=1064.50, p=0.339	
STAI TX-2	39.51±6.45	40.59±4.74	t= -.958, p=0.340	
Getting information about infant				
	Yes	Partially	No	
	Mean ± SD	Mean ± SD	Mean ± SD	
STAI TX-1	47.64±6.64	48.44±7.00	52.37±5.37	KW=6.367, p=0.041*
STAI TX-2	39.55±3.41	40.21±6.01	40.81±5.39	KW=.246, p=0.884
contribution in the care of the baby				
	Yes	Partially	No	
	Mean ±SD	Mean ± SD	Mean ± SD	
STAI TX-1	45.47±6.42	46.44±6.14	50.35±7.79	F=3.136, p=0.048*
STAI TX-2	40.42±5.53	40.50±5.77	39.09±5.13	F=.500, p=0.608

\*p<0.05

### Discussion

Going to maternity is a difficult task and raising a child with a health condition can be more complicated and challenging.<sup>(13)</sup> levels of anxiety in mothers whose babies were in the intensive care unit were higher related to mothers with PCS, while anxiety rates in features were no different in the two classifications (second table). There have also been other studies which have close findings to our research <sup>5,7-9,14</sup>

During this period, mothers need psychological and social help to support the emotional equilibrium of mothers and reduce negative feelings that may clue to adverse health results. <sup>(15)</sup> In our research, there was no link among the typical PCS status and anxiety levels and the availability of support systems; further, the level of state concern was low for mothers with strong support systems (Table II). There have been studies which have defended our results. <sup>(7, 9, 15, 16)</sup> Comparing mothers with children in NICU and PCS, there was no significant relationship between the social, obstetric and demographic characteristics of mothers (age, educational status, income level) and anxiety levels

(Table 3). Similar to other tests. <sup>(7,8)</sup> Parents whose children have been admitted into NICU need details, especially from nurses, and communicate easily with nurses.

With the current study, the level of state anxiety was higher for mothers whose children were in the intensive care unit and who did not get sufficient information about their child care compared to the aspiring mothers (Table 4). Several studies have shown that having adequate information about an infant and successful interactions with health providers has led to a decrease in levels of maternal anxiety. <sup>(8,10,18)</sup> Mummies will engage in tasks such as holding, transporting and eating. By developing competency and parenting roles, anxiety levels can be reduced in this way. <sup>21</sup> In our study, statistical results are statistically significant in terms of the level of state concern for mothers who have not been involved in caring for their children (Table 4). In some other studies similar results were reported <sup>(19-21)</sup>

There was no significant correlation between the anxiety levels typical of mothers and the form of children in either group, according to our findings. Erdem (2010

) reported elevated rates of anxiety among mothers who had their male children at NICU. <sup>(8)</sup> In this study, the level of extreme concern among mothers with male children was believed to be a guarantee in the future due to gender and religious gender, and cultural, economic and mental understanding in Turkey. In our study, an important outcome was the unimportant relationship between maternal anxiety levels and children's gender in terms of showing that sex did not contribute to maternal anxiety.

### Conclusion

There was a high level of anxiety amongst mother whose newborn were admitted at NICU. There were certain causes that contributed to maternal anxiety such as lengthy stays in the NICU, the failure of the mothers to care for the infant and the lack of child health knowledge. Previous have shown that mothers need to know the nurse status of their child and to freely interact with the nurses.

**Ethical Clearance:** The Research Ethical Committee at scientific research by ethical approval of both environmental and health and higher education and scientific research ministries in Iraq

**Conflict of Interest:** The authors declare that they have no conflict of interest.

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