Biopsychosocial Spiritual Support from Healthcare Professionals for Mothers Whose Babies in The Neonatal Intensif Care Unit: A Rapid Review

Heni Angraini1,*; Cesa Septiana Pratiwi2; M. Hakimi3; Herlin Fitriani Kurniawati4

1),2,3,4Health Science Faculty Universitas of ‘Aisyiyah Yogyakarta, Yogyakarta

ARTICLE INFO

Article history:
Received 21 June 2021
Accepted 21 August 2021
Published 25 September 2021

Keyword:
Biopsychosocial spiritual support
Breastfeeding support
NICU parents
Anxiety mother
Hospital program

ABSTRACT

Most of the deaths in Indonesia occur during the neonatal period. Based on studies, babies who are treated at the NICU require more attention from healthcare professionals and parents. Nursing the baby in the NICU has a negative psychological impact on the mother which can be stressful for the mother. Biopsychosocial Spiritual support is believed to solve this problem. This study aims to review how the healthcare professionals biopsychosocial spiritual support for mothers who have babies in NICU. A rapid review method was performed using a framework consisting of predetermined step. The instrument chosen to assess the quality of the articles was the Joana Brigs checklist from the Joana Brigs Institute. The results of the review found data related to the impact on mothers who had babies in the NICU, coping methods, and forms of support. Studies have also succeeded in exploring the associated hospital programs for managing stress and family anxiety in the NICU. It was also found that concerning how to overcome it, the need for support is actually very necessary for mothers and their families.

Kata kunci:
Dukungan Biopsikososial spiritual
dukungan menyusui
Orang tua NICU
Kecemasan ibu
Program Rumah Sakit

*) corresponding author

Health Science Faculty Universitas of ‘Aisyiyah Yogyakarta 55293, D. I. Yogyakarta, Indonesia

Email: *angrainiheni29@gmail.com

DOI: 10.30604/jika.v6i3.644

This open access article is under the CC–BY-SA license.
INTRODUCTION

Infant care in the Neonatal Intensive Care Unit (NICU) can be caused by Low Birth Weight (LBW), hypoglycemia, birth defects, requiring more oxygen and intravenous therapy, as well as requiring blood transfusions (Mathew, et al. 2015). Another study suggests that infants who are treated in the NICU room can be caused by premature birth (34%), low birth weight infants (21%), and infants with asphyxia (12%)(Quinn, et al. 2016).

A study also indicates that infants who are admitted to the NICU need more attention, both from health workers and parents (Mattsson, et al. 2013). Nursing babies at the NICU will harm the psychology of the mother of the baby, resulting in fear, guilt, stress, and anxiety (Wang & Faisal-cury, 2019). Another study also states that mothers with babies who are cared for in the NICU have higher EPDS and anxiety scores (Yurdakul, et al. 2009). Other factors that cause maternal stress are related to ongoing infant disease (Vigod, et al. 2010).

The absence of a bond of affection between mother and baby or bonding attachment can have an impact on the lack of a baby’s brain development process because it is not given a positive stimulus from the mother (Walhyuni, 2018). It also has an impact on future parenting (Bracht, et al. 2013). However, it also has an impact on the success of breastfeeding mothers since the mental and emotional conditions of the mother greatly affect the success of breastfeeding (Korompis, 2019).

Health workers play an important role in dealing with this, by providing spiritual biopsychosocial support (Mattsson, et al. 2013). According to a study conducted by Buultjens et al (2013) spiritual biopsychosocial support is very helpful in dealing with health problems (Buultjens, et al. 2013). Studies indicate that the need to provide care with attention to the physical, psychological, social, and spiritual needs of infants and mothers when the baby is treated at the NICU aims to increase attachment and reduce the impact of long-term risks (Stacey, et al. 2015), as well as spiritual needs related to mothers’ peace of mind and feelings (Küçük, et al. 2018). Another study states that if mothers get psychological support from health workers or NICU staff, it makes them more at lower risk for postpartum depression and can reduce anxiety and stress which will indirectly affect the success of breastfeeding (Bergström, et al. 2012).

Objective

Why is this review needed?

Nursing babies in the NICU room makes the mother feel uncomfortable and makes the mother’s anxiety level increase and is at risk for depression (Mundy, 2010). Being separated from the baby, being unable to care for the baby, and changing the role of parents are some of the causes of stress for mothers in the NICU (Mundy, 2010). This makes the NICU health workers have a role not only in caring for the baby, but also in paying attention to the feelings of the mother by providing the support needed by the mother (Gooding, et al. 2011). Nowadays, some recognition of the need to accompany the needs of the family in a hospital setting is emerging (Gooding, et al. 2011). Therefore, it is important to synthesize evidence on this problem.

What is known about this topic

• Nursing babies at the NICU has an impact on the stress and anxiety level of the mothers.
• Mothers with babies who are treated at the NICU experience anxiety that makes them cannot get enough rest.

What this paper adds

• Biopsychosocial support is more considered by health workers than spiritual support which is often neglected.
• Further study related to how the biopsychosocial spiritual support of health workers for mothers who have babies in the NICU conducted using qualitative method is considered very important to be investigated.

METHOD

The method used was Rapid review. The rapid review is a type of knowledge synthesis where simple systematic review steps to produce evidence in a shorter time are used as an approach to provide actionable and relevant evidence that is timely and cost-effective (Andrea, et al. 2017). This rapid review method was utilized using a framework that consisted of setting review questions, looking for research evidence, assessing sources of information critically, synthesizing evidence, identifying implementation, and transferring problems for further consideration (Yousefi, et al. 2017).

Step 1: Setting the Review Question

How is the biopsychosocial and spiritual support of health workers for mothers whose babies in the NICU?

Step 2: Looking for Research Evidence

In the process of selecting articles, researchers used relevant articles from Ebsco, Science Direct, PubMed, and Grey Literature. The criteria for the articles can be seen in table 1. Then, the search for articles was performed using the keywords articles related to the topic.

Table 1

<table>
<thead>
<tr>
<th>Inclusion criteria</th>
<th>Exclusion criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Original articles</td>
<td>Opinion articles</td>
</tr>
<tr>
<td>2. Articles published in English</td>
<td>Comment articles</td>
</tr>
<tr>
<td>3. Articles that discuss the biopsychosocial spiritual support of health workers for mothers who have babies in the NICU</td>
<td></td>
</tr>
<tr>
<td>4. Articles that discuss stress and anxiety in mothers with babies in the NICU</td>
<td></td>
</tr>
<tr>
<td>5. Articles that discuss the impact of breastfeeding with infants who are treated at the NICU</td>
<td></td>
</tr>
</tbody>
</table>
Step 3: Assessing Sources of Information Critically

In the search for the identified article titles, there were 188 articles and 32 duplicate articles. After that, the articles were screened by selecting through the abstracts and obtained 72 articles. Then, the screening was carried out by reading in its entirety according to the further eligibility criteria to find appropriate and complete reference articles regarding the biopsychosocial spiritual support of health workers for mothers whose babies in the NICU.

The instrument chosen to assess the quality of the articles was the Joana Brigs checklist from the Joana Brigs Institute. After being read in its entirety and independently reviewed based on the criteria, 9 articles were used in the rapid review. Prism describes the information data for the systematic review stage, maps the number of the article notes identified, included, and excluded, as well as describes the number of articles involved in the literature review (Peters, et al. 2015). The prism is visualized in Figure 1.

![Prism Flowchart](image-url)

Step 4: Synthesizing Evidence

1. Data Charting

Data from 9 included articles that have been conducted critical appraisal were then extracted to include key criteria such as study location, study population, research objectives, methodology, and significant findings or recommendations. The authors independently recorded and compared the extracted data, which can be seen in table 2.

<table>
<thead>
<tr>
<th>No</th>
<th>Research Sites</th>
<th>Research Purposes</th>
<th>Study Design/Samples</th>
<th>Results</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>USA</td>
<td>To determine maternal and infant factors related to increased stress levels in mothers in the NICU</td>
<td>Measured using PSS and EPDS / 85 mothers of infants in the NICU</td>
<td>The results show that the most significant source of maternal stress was due to changes in the role of parents in the NICU</td>
<td>21/24</td>
</tr>
<tr>
<td>2.</td>
<td>USA</td>
<td>To find out about the experience of breastfeeding mothers whose babies in the NICU</td>
<td>Descriptive Qualitative / 21 mothers in NICU</td>
<td>The results showed that support from breastfeeding counselors and NICU nurses was very influential for mothers and increased the confidence in breastfeeding, as well as reducing fear and stress due to having a baby who was cared for in the NICU</td>
<td>28/30</td>
</tr>
<tr>
<td>3.</td>
<td>USA</td>
<td>To identify the needs of parents in the NICU</td>
<td>Qualitative / Parents at the NICU</td>
<td>The results showed that the needs needed for mothers with babies in the NICU were the need for information related to baby care, the need to monitor their babies, the desire to have contact with babies, and the desire to take care of the baby directly</td>
<td>29/30</td>
</tr>
</tbody>
</table>
RESULTS AND ANALYSIS

Based on the nine articles reviewed in this rapid review, there were six articles from the United States, two articles from Turkey, and one article from Iran (see Figure 2). The nine articles were selected and were of good quality. Furthermore, data extraction was carried out to find out in detail and classified several points from the article, one of which is the research design. There were three cross-sectional articles, three qualitative articles, one cohort article, one case-control article, and one RCT article (See Figure 3).

<table>
<thead>
<tr>
<th>Country</th>
<th>Article 1</th>
<th>Article 2</th>
<th>Article 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>To find out factors that can increase depression symptoms in mothers in the NICU</td>
<td>To determine the effect of the auditory-tactile-visual-vestibular intervention (ATVV) and kangaroo care (KC) in overcoming psychological problems and closeness of mother and baby in the NICU</td>
<td>To determine the relationship between maternal mental health, perceptions of readiness for discharge in the neonatal intensive care unit (NICU)</td>
</tr>
<tr>
<td>Turkey</td>
<td>To investigate the symptoms of depression and anxiety in mothers in NICU</td>
<td>To identify the effect of spiritual support treatment provided by NICU health workers on maternal stress levels</td>
<td>To identify the effect of spiritual support treatment provided by NICU health workers on maternal stress levels</td>
</tr>
<tr>
<td>Iran</td>
<td>To investigate the symptoms of depression and anxiety in mothers in NICU</td>
<td>To investigate the symptoms of depression and anxiety in mothers in NICU</td>
<td>To investigate the symptoms of depression and anxiety in mothers in NICU</td>
</tr>
</tbody>
</table>

| RESULTS AND ANALYSIS |

Based on the nine articles reviewed in this rapid review, there were six articles from the United States, two articles from Turkey, and one article from Iran (see Figure 2). The nine articles were selected and were of good quality. Furthermore, data extraction was carried out to find out in detail and classified several points from the article, one of which is the research design. There were three cross-sectional articles, three qualitative articles, one cohort article, one case-control article, and one RCT article (See Figure 3).

Figure 2. Country Characteristics
DISCUSSION

Based on the results of the literature search, the following results were obtained related to the biopsychosocial spiritual support of health workers for mothers whose babies in NICU, as follows:

1. Impact on mothers whose babies in the NICU
   a. Stress and anxiety

   Based on the study, 10–15% of mothers whose babies in the NICU experience stress (Yurdakul, et al. 2009). Another study indicates that the majority of mothers with babies admitted to the NICU experienced high levels of stress and resulted in the poor mental health of the mothers (Rogers, et al. 2013).

   Nursing the baby in the NICU has a psychosocial impact on mothers, namely experiencing anxiety since they cannot directly care for their babies, and mothers experiencing a new role change in which mothers worry about the survival of their babies (Welch, et al. 2016). Another study states that mothers with babies in the NICU feel that they are intruders. Thus, they cannot always be beside their babies (Cleveland, 2008).

   b. Disruption in the breastfeeding process

   Nursing babies in the NICU causes mothers to have high levels of stress that indirectly affects the success of breastfeeding (Alkozei, et al. 2014). This is supported by other studies which found that the anxiety that the mother feels might have an impact on the process of breastfeeding the babies (Pratiwi & Glover, 2019).

   Based on the results of the study, it was found that mothers felt very frustrated by the lack of milk supply, which resulted in the mothers’ fear of not being able to meet the needs of breastfeeding for their babies (Rossman, et al. 2011). This finding following another study that obtained data that the low level of exclusive breastfeeding for mothers with babies in the NICU (Yurdakul, et al. 2009).

   c. Bounding attachment

   Babies who are treated in the NICU cannot always be accompanied by their mothers, making the mothers feel that they are distant parents (Holditch-Davis, et al. 2014). Another study states that mothers really want to carry and touch their babies, but this cannot be done for babies have to be treated intensively (Cleveland, 2008). Based on the study, it is suggested that the lack of a bond of affection between mother and baby might have an impact on the skills of mothers in parenting in the future (Heidari, et al. 2017).

2. How to overcome
   a. Biological Support
      1) Information Support

   Information support is a necessity that is urgently needed by mothers with babies in the NICU (Yurdakul, et al. 2009). One of the information is the process of how the baby is cared for and also the development of their health (Hawes, et al. 2016). This is in accordance with another study which states that providing appropriate information support can prevent or reduce the impact of the crisis that might occur on mothers (Cleveland, 2008). Another study also states that the level of stress experienced by mothers will be reduced by understanding the health status of their baby’s care (Alkozei, et al. 2014).

      2) Care assistance, breastfeeding support

   One of the problems that often arise in mothers with babies in the NICU is related to breastfeeding (Rossman, et al. 2011). The results of the study also said that with the support in breastfeeding such as nursing care assistance, providing information such as how to store breast milk, how to use a breast pump, schedule for pumping breast milk and providing education and techniques to increase breast milk supply and direct assistance during breastfeeding (Rossman, et al. 2011). Thus, in the process of breastfeeding, the baby does not choke (Rifatolistia, 2019).
This is convinced to increase the mother’s self-confidence to make her calm (Rossman, et al. 2011). The study also states that with the help and support of these health workers, the mother feels safe and realizes that she is not alone in facing her problems (Rossman, et al. 2011). A study indicates that the need for mothers to always be close to their babies is important, one of which is to make physical contact (Rossman, et al. 2011). The physical contact in question such as breastfeeding the baby, carrying the baby, and also increasing the bonding attachment between mother and baby (Welch, et al. 2016).

3) Involvement in decision making

Involving mothers or families in making decisions about infant care at the NICU is considered to be one of the important needs that mothers expect (Welch, et al. 2016). This can make the mother feel valued as the parent of the baby (Cleveland, 2008). Another study also found that mothers really desire to be able to communicate with doctors about what care is given to their babies (Kuçük, et al. 2018).

b. Psychological Support

1) Counseling, care, feeling safe and comfortable

Mothers with babies in the NICU have higher levels of anxiety than mothers whose babies are healthy (Rogers, et al. 2013). Mothers whose babies are treated at the NICU might develop several problems such as anxiety, problems in the breastfeeding process, and also bonding attachment (Rogers, et al. 2013).

Based on the study, it is suggested that health workers at the NICU are also willing to provide information related to counseling services if the mother feels stressed and needs her to express her feelings (Rossman, et al. 2011). This is in accordance with another study which suggests that the interaction between nurses and mothers might increase self-confidence to enable mothers to feel calm about their baby care (Hawes, et al. 2016). Another source also stated that the support and care assistance from NICU health workers would have a positive impact on mothers (Alkozei, et al. 2014).

c. Social Support

Social support is one of the important things, research suggests that one of the needs of parents is to be able to have a good relationship with NICU nurses (Rossman et al., 2011). The support which can be given is the emotional support from the health staff such as the atención and the feeling of safety (Angraini & Kurniawati, 2020).

Another study found that parents actually want a trusting relationship between themselves and NICU staff, especially on how their babies are protected and supervised, to make them being calmer about the care given to their babies (Cleveland, 2008). This is in accordance with the findings of a study that indicates that around 57% of mothers feel they want to form a good emotional bond between health workers and themselves (Rossman, et al. 2011).

d. Spiritual Support

A study mentioned that spiritual needs can be assessed through observing behavior, movement, and communication from mothers, which can provide clues (Kuçük, et al. 2018). A study also states that nurses or other NICU health workers are required to be active and sensitive to listen to the mothers’ feelings about their spiritual needs (Kuçük, et al. 2018). This is in accordance with the results of other studies which state that in fact, the environment in the NICU can make mothers feel tense, accordingly, they often seek hope and calm through prayer and asking God for help in overcoming stress (Heidari, et al. 2017). Studies also showed that the spiritual support provided by NICU health workers might help prevent disease and also improve maternal health to make mothers have a calm feeling and heart (Heidari, et al. 2017).

3. Forms of support

a. Hospital program

1) Online media

Online media support for families who have babies at the NICU is a service solution to connect them with health workers if mothers and families do not want to meet in person or have other activities (Welch, et al. 2016). In this online support discussion, mothers can get information related to their baby care managed directly by health educators, technical staff, and parental volunteers (Welch, et al. 2016).

A study also found that this online media site has a video conference feature to enable families to connect to the NICU if they are unable to visit the baby directly (Welch, et al. 2016). Another advantage is that online media discussions facilitate families to connect and get support from other families whose babies in the NICU (Welch, et al. 2016).

2) FCC (family-centered care)

A study found that family-centered care aims to help families cope with stress since their babies are treated at the NICU (Welch, et al. 2016). This FCC model can make families participate in caring for babies, such as involvement in decision making, as well as open communication between families and NICU staff or health workers (Welch, et al. 2016).

LIMITATION OF THE STUDY

This review used a rapid review approach using 4 predefined databases in the article search method which aims to explore studies related to the impact, support, and way to overcome the problems being studied.

This study can provide actionable and relevant evidence in a timely and cost-effective manner, as well as can produce evidence in less time. In the process of the study, the authors excluded articles that discussed more specifically the causative factors for treatment. However, it can be seen that this study only focused on the objective of answering questions in a focused manner.

CONCLUSION AND SUGGESTION

To conclude, this study found that there are some effects of mothers having babies in the NICU. Studies have also succeeded in exploring the associated hospital programs for managing stress and family anxiety in the NICU. It was also found that concerning how to overcome it, the need for support is actually very necessary for mothers and their families. The research gap found was that studies that explored more deeply related to spiritual biopsychosocial support were still very limited and there was still a lack of
studies that explored these problems in developing countries. Therefore, a study related to how the biopsychosocial spiritual support of health workers for mothers whose babies in the NICU using qualitative methods is considered very important to be investigated.

Acknowledgment

The author would like to Mrs. Cesa Septiana Pratiwi, Prof. M. Hakimi and Mrs. Herlin Fitriani Kurniawati who have assisted in the completion of this Rapid review.

Ethical Considerations

Not Applicable

Funding Statement

The authors did not receive support from any organization for the submitted work.

Conflict of Interest Statement

Not Applicable

REFERENCES


