

Research Progress on Psychological Status and Intervention Measures of Mothers with Hospitalized Premature Infants

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Abstract

This paper summarizes the psychological status and intervention strategies for mothers of hospitalized preterm infants. The psychological distress of these mothers, including anxiety, depression, and post-traumatic stress disorder (PTSD), is significantly influenced by factors such as separation from their infants, prolonged hospitalization, and uncertainty about their infants' health. Anxiety affects 22%-42% of mothers, depression is prevalent at 55.15%, and PTSD affects 33.1%-78.6% of mothers. To alleviate these issues, interventions like health education, family-centered care (FCC), and Kangaroo Mother Care (KMC) are recommended. Health education enhances care knowledge, improves coping abilities, and reduces anxiety and depression. FCC promotes parental participation, improves infant outcomes, and reduces postpartum depression and PTSD. KMC, through skin-to-skin contact, improves neonatal survival, reduces parenting stress, and strengthens maternal psychological health. Overall, implementing these interventions can provide psychological support and professional guidance to mothers, enhancing their well-being and family life quality.

Keywords

Neonatal Intensive Care Unit (NICU); preterm infants; mothers; psychological status

Introduction

Preterm infants, defined as those born before 37 weeks of gestation [1], often require admission to the Neonatal Intensive Care Unit (NICU) for intensive care [2, 3]. This situation can lead to considerable psychological distress for mothers, influenced by factors such as separation from their infants, prolonged hospitalization, uncertainty about their infants' health, high medical costs, and the transition to motherhood [4-6]. Negative emotions like anxiety and depression are common and can impact both the mothers' health and the infants' recovery [7-10]. Thus, addressing these psychological issues and implementing effective interventions is crucial [11-13].

1. Psychological Status of Mothers of Hospitalized Preterm Infants

1.1 Anxiety

Anxiety is one of the common psychological conditions among mothers of hospitalized preterm infants. A study by Jiang Panhua et al. [14] showed that the incidence of anxiety among mothers of preterm infants is 22%. Rogers et al. [15] found that 42% of these mothers exhibited moderate to severe anxiety. The arrival of a preterm infant disrupts

mothers' expectations of having a healthy baby, leading to strong stress reactions due to a lack of psychological preparation, making it difficult for them to adapt to their new role. Mothers may feel helpless, frustrated, and disappointed, which can lead to anxiety [16-18]. Additionally, the closed management mode of NICUs cuts off direct contact between mother and infant, requiring them to rely on medical staff for information support. The rapid changes in the infant's condition, high incidence of complications, and uncertain treatment outcomes further exacerbate mothers' difficulty in coping with the uncertainty of the disease, increasing anxiety [19, 20]. Furthermore, factors such as the mother's age, educational level, employment status, family income, mode of delivery, breast milk supply, and pregnancy complications also influence anxiety levels [14, 21].

1.2 Depression

Depression is another common psychological issue among these mothers. Studies indicate that 55.15% of mothers of preterm infants exhibit depressive symptoms, a rate significantly higher than the overall postpartum depression prevalence of 10.7% in China [22, 23]. Physical discomfort, self-blame, and concerns about their infants' health can lead to depressive symptoms [24-26]. The complex and prolonged treatment required for preterm infants can exacerbate worries about the infants' future development [27-29]. Insufficient social support, discordant family relationships, and high prenatal stress are additional factors that can worsen depressive symptoms [30, 31].

1.3 Post-Traumatic Stress Disorder (PTSD)

PTSD is a severe mental disorder characterized by persistent re-experiencing of traumatic events, avoidance, and hyperarousal [32]. Research shows that 33.1% of mothers of hospitalized preterm infants exhibit positive PTSD symptoms, significantly higher than mothers of full-term infants [33]. Mukabana et al. reported a PTSD prevalence of 78.6% among these mothers [34]. Factors such as mother-infant separation and infant health conditions can trigger PTSD [35, 36]. PTSD can affect maternal well-being and parenting skills, influencing future pregnancies and attitudes towards infants [37].

2. Common Intervention Methods for Mothers of Hospitalized Preterm Infants

2.1 Health Education

Health education is crucial in helping mothers acquire necessary care knowledge and skills, improving their coping abilities, and alleviating negative emotions. Studies have shown that health education can reduce illness uncertainty, increase parenting confidence, and alleviate anxiety and depression [38-41]. For example, Gao Ying's study on health education for NICU mothers showed significant improvements in parenting confidence and reductions in anxiety and depression after the intervention [42]. Other studies have demonstrated similar benefits of health education [43-45].

2.2 Family-Centered Care

Family-centered care (FCC) encourages parents to actively participate in NICU care activities. This model has been shown to promote physical development in preterm infants, improve feeding conditions, and reduce postpartum depression in mothers [46-49]. FCC also enhances parental caregiving abilities and improves parent-child bonding [47, 48]. Research indicates that FCC can reduce hospital stays, lower readmission rates, and increase maternal satisfaction [49]. Franck et al. found that mothers participating in FCC had significantly lower rates of PTSD and depression [50].

2.3 Kangaroo Mother Care

Kangaroo Mother Care (KMC) involves significant skin-to-skin contact between mothers and preterm infants, promoting intimate communication and reducing maternal anxiety. Studies have shown that KMC improves neonatal survival, reduces parenting stress, and increases parenting competence [51-55]. Liu Yanhong's study on KMC demonstrated reduced illness uncertainty and increased positive feelings among mothers [53]. KMC is widely applied globally, with significant positive impacts on maternal psychological health and mother-infant bonding [55].

3. Conclusion

This paper reviews the psychological status and intervention measures for mothers of hospitalized preterm infants, offering recommendations to support these mothers and alleviate their stress. Interventions such as health education, family-centered care, and kangaroo mother care are effective in improving maternal psychological health and promoting parent-child relationships. Implementing these interventions can provide psychological support and

professional guidance to mothers during the hospitalization and post-discharge phases, enhancing the overall quality of family life.

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