

PARENTAL BURNOUT AMONG PARENTS OF PRE-TERM NEOENATES WITH HYPERBILIRUBIN IN NEONATAL INTENSIVE CARE UNIT

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Abstract

Newborn is a source of happiness for family but pre-term neonates affected with severe jaundice give reason for stress and burnout for parents and caregivers (Crinc et al., 2002; Duygun & Sezgin, 2003; Freudenberger & North, 1986). The huge demands decrease the level of motivation in parents (Procaccini & Kiefaber, 1983). Literature has revealed that not much work has been done on the parents of neonates with hyperbilirubinemia. Hence, this study has been designed to examine the parental burnout among the parents of pre-term neonates with hyperbilirubinemia. The aim of this study was to examine the variables responsible for parental burnout. The sample comprised of 150 mothers and 150 fathers of male and female neonates with hyperbilirubinemia. The standardized tools were used to assess different variables. Based on the findings of the present study, it is clear that most of the parents of neonates with hyperbilirubinemia experienced parental burnout.

Keywords: Pre-term, Neonate, Hyperbilirubinemia & Parental Burnout.

1. Introduction

Neonates with hyperbilirubinemia need special treatment, additional physical and personal attention, which can have an impact on the members of the family. As a result, parents may face crisis of changed expectations (Chawla et al., 2012). The diagnosis of the child as having a severe illness can be perceived as a traumatic event by the family (Weiss, 2004). World Health Organization's (WHO, 2016) clinical practice guidelines on the management of neonatal hyperbilirubinemia recommended that all newborn infants be assessed before discharge for the risk of developing subsequent severe hyperbilirubinemia.

Chronic and acute illness affects the children all over the world. Neonates with hyperbilirubinemia are on high risk of developmental delays (Christian, 2010). Exposure to jaundice in preterm neonates associated with increased risk of disorders of psychological development (Maimburg et al, 2013). Because of high levels of stress experienced due to rearing a child, the parents may experience burnout (Crinc et al., 2002; Duygun & Sezgin, 2003; Freudenberger & North, 1986). Literature has revealed that not much work has been done on the parents of neonates with hyperbilirubinemia. Hence, this study has been designed to examine the various predictors of parental burnout among the parents of neonates with hyperbilirubinemia.

Objectives

The main objective is to understand the variables responsible for parental burnout among parents of pre-term neonates with hyperbilirubinemia.

Hypotheses

It is expected that family functioning will be responsible for Parental Burnout among parents of pre-term neonates with hyperbilirubinemia.

2. Methodology

The aim of the present investigation was to study the predictors of parental burnout among parents of neonates with hyperbilirubinemia. The sample comprised of mothers and fathers of male and female neonates with hyperbilirubinemia. The sample was divided into 150 fathers and 150 mothers of neonates with hyperbilirubinemia. The parents in the age range of 20-35 years with first live born neonate with hyperbilirubinemia from the clinical setting were selected. Parents of preterm neonates having gestational age less than 35 weeks with bilirubin level between 17mg/dl to 24mg/dl were included.

2.1. Tools

The following tests were used in the present investigation:

1. *Maslach Burnout Inventory (MBI)*(Maslach & Jackson, 1986)

MBI is a 22-item instrument developed by Maslach & Jackson (1986) to assess the three components of the burnout syndrome: Emotional Exhaustion, measures feelings of being emotionally overextended and exhausted by one's work. Depersonalization measures an unfeeling and impersonal response towards recipients of one's service, care treatment or instructions and Lack of Personal Accomplishment, measures feelings of competence and successful achievement in one's work. The Cronbach Alpha value for total burnout scale is .85.

2. *Family Environment Scale (FES)*(Moos & Moos, 1996)

The scale was developed by Moos & Moos (1996). The scale consist 90-item inventory that has a 10 subscales measuring Family Relationship Index: Cohesion, Expressiveness, Conflict; Personal Growth: Independence, Achievement Orientation, Intellectual-Cultural Orientation, Active-Recreational Orientation, Moral-Religious Emphasis; System Maintenance: Organization, Control. The test re-test reliability of this test is .91 and .83 as internal reliability.

3. *Ways of Coping Inventory (WCI)*

WCI is a commonly used instrument to examine the behavioural and cognitive strategies that people use under stressful conditions. It was developed by Folkman & Lazarus (1980) and it has been revised by the same authors (Folkman & Lazarus, 1985). The response format of the revised version has been changed into 4-point scale ranging from "0=not used" and "3= used a great deal" from yes-no answering. Folkman and Lazarus (1985), conducted a research with a university student sample, and after the factor analysis, they reported that he WCI has eight subscales. The Cronbach alphas ranged between .56 and .85.

2.2. Coring and Statistical Analyses

Scoring for all the tests was done as per the instructions provided in the scoring manuals of the tests. Normality of the data was assessed before conducting the statistical analyses.

Keeping in mind the objectives of the study step-wise multiple regression analysis was applied.

2.3. Results

The aim of this research was to study the psychological predictors of parental burnout among parents of neonates with hyperbilirubinemia. The sample of parents was classified under two

categories i.e. 150 fathers and 150 mothers of pre-term neonates with hyperbilirubinemia. The scores on different variables were obtained and analyzed using appropriate statistical analyses.

2.4. Regression analysis

The objective of the present study was to delineate the significant predictors for criterion variables i.e. parental burnout among mothers and fathers of male and female neonates with hyperbilirubinemia. For this step-wise multiple regression analysis was applied on the overall sample as well as on various groups of parents. The independent variables family functioning were entered as predictors of parental burnout. Hence, with parental burnout as criterion, regression equations were run for the total sample of parents and on its various group's viz. mothers of male and female neonates, fathers of male and female neonates. Table 1 shows the regression analysis with parental burnout as the criterion variable for the fore-mentioned groups studied.

Parental Burnout and Its Predictors

In the regression analysis for parental burnout as the criterion the following variables were entered as predictors'. Among *mothers of male neonates* with hyperbilirubinemia, family-functioning viz. expressiveness and ways of coping viz. social isolation, self blame variables turned out to be relevant and were retained as predictors as they explained 62% ($R^2=0.62$) of the variance in the criterion variable i.e. parental burnout. The predictors which emerged significant were social isolation ($\beta= 0.51$), self blame ($\beta= 0.35$), expressiveness ($\beta=.17$). Among *fathers of male neonates* with hyperbilirubinemia, family-functioning viz. conflict, control, cohesion variables turned out to be relevant and were retained as predictors as they explained 64% ($R^2=0.64$) of the variance in the criterion variable i.e. parental burnout. The predictors which emerged significant were conflict ($\beta= 0.34$), control ($\beta= 0.31$), cohesion ($\beta=.26$).

Among mothers of female neonates with hyperbilirubinemia, ways of coping viz. empathy, variables turned out to be relevant and were retained as predictors as they explained 33% ($R^2=0.33$) of the variance in the criterion variable i.e. parental burnout. The predictors which emerged significant were empathy ($\beta= 0.42$).

Among fathers of female neonates with hyperbilirubinemia, ways of coping viz. tension reduction, variables turned out to be relevant and were retained as predictors as they explained 30% ($R^2=0.30$) of the variance in the criterion variable i.e. parental burnout. The predictors which emerged significant were tension reduction ($\beta= 0.26$).

Discussion

The aim of the present investigation was to study the psychological predictors of post-traumatic growth and parental burnout among parents of neonates with hyperbilirubinemia. The sample was categorized into mothers and fathers of male and female neonates with hyperbilirubinemia. The variables of family functioning and their dimensions were entered as predictors. The following variables emerged as predictor of parental burnout.

Family Functioning and its dimensions

Intellectual cultural is prominent as predictor of parental burnout among fathers of neonates. Hence, the hypothesis was supported with intrusive reason that family members often keep their feelings to themselves, family members are strictly influenced by different cultural values and these cultural values depressed the caregivers of sick children. Few studies (Limang, 1999; Rolland, 2006) explained that a stress and burnout level increase when parents realize that there is no cure and have ill effects of disease. Rolland's model of family system and illness focused the birth of child diagnosed with a serious illness or disability and found that illness of child has long-lasting impact on family life.

In the life cycle approach, having first child is a major transition. The child born with a disability or having severe illness is stressful and may associate with conflict (Doherty, et al., 1993). *Conflict* is prominent predictor of parental burnout among fathers of female neonates. The hypothesis was partially supported with explanatory reason that the conflict in family increase the stress among members and sometimes illness of child is major cause of conflict in the families, in both situations, parental burnout occurred. The other reason could be the financial strain on the fathers of female neonates and also low social support is major cause of conflict among families of severely ill children. Studies supported the results that parents with unfavorable parental attitude, no remedial assistance, small family size and higher amount of stressful life experience may promote burnout (Mathew, 2006).

The other family factor i.e. *control* is a part of system maintenance in family and in this study it was emerged as a significant predictor of parental burnout among fathers of male neonates. The results were supported with reason that families with restraint environment effects the parental state of mind and it may cause severe stress among them. Few studies (Melgren et al., 2014) explained that multiple pressure in family environment include a stress from environment but the family's resources for coping with that stress and parents flexibility in understanding and dealing with their child. While, the mothers in controlled families have used different coping methods to deal with traumatic events and they may have use religious practices to divert themselves from stress.

Expressiveness in families is the extent to which family members are encouraged to express their feelings directly and it was emerged as predictors of parental burnout among mothers of female neonates respectively. The reason could be that mothers of female neonates showed low social functioning, low social support, impairment in communication and higher on self blame which may result in parental burnout. Studies supported (Tunbull, 2010; APA, 2000; Mathew, 2006) the results and revealed that reveal parents of children with autism endure more stress. They have isolated themselves from society because of the social taboos. Mothers have reported low social functioning on their careers due to their child's disability and they don't express their feelings with others. Parents with children who have chronic disability assessed parental attitudes, personality, emotional difficulties, psychosocial problem is related to raising a child with mental retardation.

Cohesion is depicting family relationships and it is a degree of commitment and support to each family member. Cohesion is emerged as significant predictor among fathers of neonates and fathers of male neonates. The rationale for the hypothesis is that families who are not well organised and give low support to the family member at the time of traumatic experiences are the major cause of isolation among parents. These families may predict burnout among the parents of neonates with hyperbilirubinemia. Studies (Best et al., 2001; Kazak et al., 2005; Poder et al., 2008) supported the results that rigid and less cohesive families of child with autism may reported higher level of stress. A Well functioning family has a good balance of cohesion and adaptability, but, the additional financial burdens may disrupt the routine as well as their family relationship (Mc Dowell, 2011; Mc Bride & Bajork et al., 2005). Fathers of a child with cancer reported higher levels of burnout than the mothers (Bayat et al., 2008; Norberg et al., 2006; Mathew, 2006).

Ways of Coping as Predictors of Parental Burnout

Coping is a complex process related to both personal characteristics and life conditions. The circumstances of burnout may include both uncommon life events and common daily hassles, which may include social obligations, financial concerns, work issues and maintenance of house (Lazarous et al., 2011).

Self-blame is a common reaction to stressful events. Self-blame is a cognitive process in which an individual attributes the occurrence of a stressful event to oneself. The self-blame emerged as a predictor of parental burnout among parents of female neonates, mothers of female neonates and among mothers of male and female neonates. The mothers are more prone towards self-blame as compared to fathers and even parents of female neonates also are at higher risk of parental burnout because they blame themselves for the illness of their child. Female child has been treated inferior to male child and even the birth of a sick female child may act as a burden for the whole family especially in Punjab and Haryana. The study also reported that states with anti-female bias include rich ones i.e. Punjab and Haryana (Sen, 2001).

Self-isolation as a coping or defense mechanism also predicted the parental burnout among various groups of parents. Parents may be embarrassed by the illness of their neonates and they tend to isolate themselves to avoid social interaction out of fear that they would be judged or stigmatized by the relatives, friends or society. Greater depression, greater social isolation and lower level of marital intimacy predict the parental burnout (Cinic et al., 2013; Bengt, 2002). Here, it was also noted that low social support and self-isolation both are inter-linked with each other and often escort burnout.

The role of empathy in predicting PBT was also gauged through regression analysis. The findings of the present study revealed empathy as a significant predictor for PBT in mothers of male neonates only. Studies supported that lack of social support and empathy can develop the increased risk of burnout. Positive social support and empathy appears to play an adaptive role in reducing negative thoughts about the self and the world. Likewise, negative support can simply postulate to strengthen negative beliefs about oneself and the world. (Herman et al., 2012; Brewin et al., 2000).

Tension reduction also predicts the parental burnout among fathers of male neonates because most of the parents belong to nuclear families and they didn't get as much support from their families. While, the formal social support was with them and practically they have their first live-born baby so they have no experience to solve or handle the problem physically, mentally, emotionally and psychologically. In Indian government hospitals, no counselling facilities have been given during post-natal deliveries or to the parents whose children are admitted in the NICUs. So, lack of tension reduction could be the reason to cause parental burnout.

3. Limitations

No research is complete without acknowledging its limitations and shortcomings. The present study was limited to the hospitals of Chandigarh, India which were selected as they were comparatively well-equipped hospitals, with proper facilities and have separate units for neonates. Secondly, this study was entirely quantitative in nature, with much reliance on the self-report measures and these types of measures might bring in social desirability factors. Thirdly, due to paucity of time, investigation was not able to study the effect of different kinds of developmental and psychological problems separately.

4. Implications and Suggestions

In the Indian scenario, the various studies have been conducted on parents of children with disabilities but there is a lack of studies on the parents of neonates with jaundice and with preterm babies. There is a need to conduct more psychological studies on parents of neonates. So, those better intervention strategies could be prepared for the parents who suffered through trauma at the time of the admission of neonates in NICU for different medical reasons.

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