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## Perceived maternal parenting self-efficacy and parent coping among mothers of preterm infants – a crosssectional survey

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# Perceived maternal parenting self-efficacy and parent coping among mothers of preterm infants – a cross-sectional survey

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## Abstract

**Background:** Parenting is a process of being a parent to one's offspring. This process enables the couple to plan for a child, give birth to it and care for it throughout. Before the arrival of her new born, the mother should get prepared to parent her new born as her pregnancy advances. **Aims and Objectives:** To determine the perceived maternal parenting self-efficacy and coping of mothers of preterm infants admitted in NICU and postnatal wards in tertiary care hospitals. **Material and Methods:** A cross-sectional descriptive survey was conducted using the Perceived Maternal Parenting Self-Efficacy (PMP S-E) tool, which was developed to measure self-efficacy in mothers of premature infants by using non-probability purposive sampling technique among 61 mothers of preterm infants delivered at 32- 36 weeks of gestation. **Results:** Majority (78%) of the mothers had average coping. The mean and standard deviation of the perceived maternal parenting self-efficacy was  $58.8 \pm 8.7$ . There was a positive co-relation ( $r=0.318$ ,  $p=0.013$ ) between the perceived maternal parenting self-efficacy and the parent coping which was statistically significant. **Conclusion:** The perceived maternal parenting self-efficacy has an influence on the parent coping. Healthcare providers must play a vital role in enhancing the parenting self-efficacy of mothers during pregnancy.

**Key words:** Mothers, perceived, parenting self-efficacy, parent coping

## Introduction

Preterm birth and infants' admission to neonatal intensive care units (NICU) are associated with significant emotional and psychological stresses on mothers that interfere with normal mother-infant relationship.<sup>1</sup> Maternal self-efficacy in parenting ability may predict long-term outcome of mother-infant relationship as well as neurodevelopmental and behavioral development of preterm infants. Preterm childbirth is the birth of a baby that happens before the completion of 37 weeks of gestation.<sup>2</sup> Pre-term childbirths pose a problem to both the new born as well as the parents of the

new born. The parents of the new born along with the premature baby become premature parents, because the process of maturation of parenthood is cut short with a premature child birth. Thus, the preterm childbirth is a challenge to both the infant as well as its family.<sup>3</sup> Parent coping in this study was defined as the concept closely linked with the effort to manage the stressful demand regardless of the outcome. Parental self-efficacy was defined as parents' perceptions of their capability in the role of caring for and positively nurturing the growth and development of their children.

According to World Health Organization (WHO), every year 15 million babies are born before completing 40 weeks of gestational age, that means more than one out of 10 babies born is preterm.<sup>4</sup> According to statistics in 184 countries, the preterm birth rate ranges from 5% -18%. In this, half of the babies are delivered at 32 weeks of gestation. It is reported that more than 62 % of preterm births occur in Africa and South Asia. In South Asia, India

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contributes about 3.6 million preterm births per year.<sup>5</sup>

Preterm birth is referred to as a time of crisis. The parents must cope with numerous stressors including potential medical complications and separation due to hospitalization. In addition to the low birth weight of the baby, lack of knowledge regarding handling the preterm newborn, highly technical nature and intrusiveness of the neonatal intensive care unit environment may exacerbate the parent's anxiety.<sup>6</sup> When a child is hospitalized, the parent finds that they are displaced from their familiar role and they lose confidence in their ability to comfort their child in a meaningful way. The worries faced by the parents of a preterm infant is significantly higher than the term infants, because they are not been effectively prepared for the birth experience, and need to cope with the anxiety caused by the clinical environment.<sup>7</sup> Important judgments are to be made about what a mother believes about her capability of taking care of the infant in immediate post-partum period for they influence her future interactions with the child.<sup>8</sup>

### Materials and Methods

A descriptive survey was carried out using non-probability purposive sampling technique among 61 mothers of preterm infants of a tertiary care hospital of Udupi District, in the year 2015.

The perceived maternal parenting self-efficacy was measured using a standardized tool, (PMPS – E,<sup>9</sup> a four point Likert scale and reliability (Coefficient Cronbach's alpha) was 0.87. This scale consists of 20 items divided into four subscales: caretaking procedures, evoking behaviours, reading behaviours and signalling and situational beliefs. The statements were scored from 1 to 4, (1=strongly disagree, 2=disagree, 3=agree and 4=strongly agree). The mothers who scored high scores had a high perception regarding parenting self-efficacy.

Parent coping was measured using a four point Likert scale developed by the researcher (1=not helpful, 2=minimally helpful, 3=moderately helpful and 4=extremely helpful), with a total of 20 statements. The total score were categorized as good

(80-60), average (61-30) and poor coping (below 30). Reliability (Coefficient Cronbach's alpha) of the scale was 0.8.

Data collection was started after obtaining administrative permission from institutional ethical committee. Written informed consent was taken from mothers of preterm infants. The criteria for the selection of participants were: 1) Preterm mothers who delivered preterm infants between 32-36 weeks of gestation, 2) Medical condition of preterm infants was stable, and 3) Mothers who got admitted in NICU and postnatal wards of tertiary care hospital. Data was collected on the third day following delivery, using the earlier mentioned tools which were translated to Kannada language by a bilingual language expert. A demographic proforma was used to collect the background information. SPSS (Version 16.0) package was used to analyze the data. Data was summarized using descriptive and inferential statistics. Pearson's correlation was computed to find the relationship between perceived maternal parenting self-efficacy and parent coping.

### Results

*Participant characteristics:* Table 1 describes the participant characteristics. The majority of the mothers, i.e., 40 (65.5%) were in the age group of 18-23 years, 30 (49.2%) mothers had pre-university education, most of them, i.e., 32 (52.4%) were unemployed, a majority of 49 (80.3%) of the mothers underwent Lower Segment Cesarean Section delivery and 44 (72.1%) women stayed 1-7 days in the hospital.

**Table 1: Frequency(f) and percentage(%) distribution of demographic characteristics: n= 61**

Demographic characteristics	f	%
<b>Age (in years)</b>		
18-23	40	65.6
24-29	21	34.4
<b>Education</b>		
Primary	5	8.2
Secondary	14	22.9
Pre University	30	49.2
Graduation	12	19.7
<b>Occupation</b>		
Un-employed	32	52.4
Employed	29	47.6
<b>Type of delivery</b>		

Demographic characteristics			f	%
Lower Segment	Caesarean	Section	49	80.3
Normal Vaginal Delivery			12	19.7
Length of hospitalization (in days)				
1-7			44	72.1
8-14			14	23
15-21			3	4.9

The mean gestation weeks at delivery of the subjects were  $33.7 \pm 1.2$ , and the mean birth weight of preterm infants was  $2.1 \pm 0.598$  Kg.

**Parent coping:** The majority 47 (78%) mothers had average parental coping and 14 (22%) mothers had good coping toward birth of preterm infants (Figure 1). The mean parent coping score among mothers was  $51.7 \pm 8.9$ .

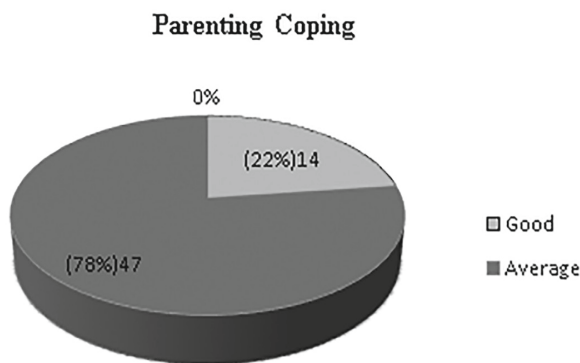


Figure 1: Pie diagram showing the percentage of mothers of preterm infants based on level of parent coping

**Perceived Maternal Parenting Self-efficacy:**

Mean and standard deviation perceived maternal parenting self-efficacy was  $58.7 \pm 8.7$ .

**Correlation between perceived maternal parenting self-efficacy and coping:**

Pearson’s correlation computed to find the relationship between perceived maternal parenting self- efficacy and parentcoping. Table 2 reveals positive correlation which was statistically significant.

**Table 2: Correlation between perceived maternal parenting self-efficacy and parenting coping**

Variables	Pearson’s correlation (r)	p
Perceived maternal parenting self-efficacy and coping	0.318	0.013
r = correlation coefficient, p<0.05		

(n=61)

**Discussion**

The present study findings reveal 40 (65%) of the mothers were in the age group of 18-23 years of age. Forty seven (78%) mothers had average coping. These findings were similar to a study (n=40) held in Karad, in which the mothers had average coping 35(87.5%).<sup>10</sup>

The present study showed that the mean perceived maternal parenting self-efficacy of the participants was  $58.8 \pm 8.7$ . In contrast, a study conducted in Israel, on parental stress and parenthood transition among forty nine mothers of pre-term and fifty mothers of term infants, showed a mean of 73.73. (SD: 12.34).<sup>11</sup>

The finding of statistically significant positive correlation (r=0.318) between the perceived maternal parenting self- efficacy and the coping, is consistent with the findings of longitudinal correlational study held among 25 parents of preterm infants in Australia, in which there was a weak correlation (r=0.291) between perceived maternal parenting self-efficacy and coping (p=0.012). The findings of the study imply that maternal parenting self-efficacy positively influences maternal coping.<sup>12</sup>

**Conclusion**

Parenting approaches that enable parents to simplify their parenting skills to diverse parenting contexts in the home and community is essential. As majority of the participants have average parenting coping, it is commendable to initiate a community based follow-up care plan to support pregnant mothers towards adaptive coping.

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