

ORIGINAL ARTICLE

Perceived Maternal Role Competence among the Mothers Attending Immunization Clinics of Dharan, Nepal

Shah Shrooti¹, MS; Shrestha Mangala², MS; Pokharel Nirmala², MS; Shrestha Devkumari², MS; Baral Dharanidhar³, MS

¹Department of Nursing, National Medical College Nursing Campus, Birganj, Nepal;

²Department of Maternal Health Nursing, College of Nursing, BP Koirala Institute of Health Sciences, Dharan, Nepal;

³Department of Community Department Medicine, School of Public Health, BP Koirala Institute of Health Sciences, Dharan, Nepal

Corresponding author:

Shah Shrooti, MS; Department of Nursing, National Medical College Nursing Campus, Birgunj-18, Nepal

Tel: +977 051 621740; **Fax:** +977 051 532261; **Email:** shahshrooti@gmail.com

Received: 8 November 2015 **Revised:** 13 December 2015 **Accepted:** 16 January 2016

ABSTRACT

Background: Being a mother is considered by many women as their most important role in life. Women's perceptions of their abilities to manage the demands of parenting and the parenting skills they possess are reflected by perceived maternal role competence. The present study was carried out to assess the perceived maternal role competence and its associated factors among mothers.

Methods: A descriptive cross-sectional research study was carried out on 290 mothers of infant in four immunization clinics of Dharan, Nepal. Data were collected using a standardized predesigned, pretested questionnaire (Parent sense of competence scale, Rosenberg's self esteem scale, Maternity social support scale). The data were analyzed using descriptive and inferential statistics and multiple regression analysis at 0.05 level of significance.

Results: The mean score of the perceived maternal role competence obtained by mothers was 64.34±7.90 and those of knowledge/skill and valuing/comfort subscale were 31±6.01 and 33±3.75, respectively. There was a significant association between perceived maternal role competence and factors as the age of the mother ($P<0.001$), educational status ($P=0.015$), occupation ($P=0.001$) and readiness for pregnancy ($P=0.022$). The study findings revealed a positive correlation between perceived maternal role competence and age at marriage ($r=0.132$, $P=0.024$), per capita income ($r=0.118$, $P=0.045$), self esteem ($r=0.379$, $P<0.001$), social support ($r=0.272$, $P<0.001$), and number of support persons ($r=0.119$, $P=0.043$). The results of the step wise multiple regression analysis revealed that the major predictor of perceived maternal role competence was self esteem.

Conclusion: The factors associated with perceived maternal role competence were age, education, occupation, per capita income, self esteem, social support, and the number of support persons.

KEYWORDS: Competency; Mother; Perceived; Role; Self esteem

Please cite this article as: Shrooti Sh, Mangala Sh, Nirmala P, Devkumari Sh, Dharanidhar B. Perceived Maternal Role Competence among the Mothers Attending Immunization Clinics of Dharan, Nepal. IJCBNM. 2016;4(2):100-106.

INTRODUCTION

First time motherhood represents a major transition in one's life, causing the examination of one's capacity to provide care for another human being. It is potentially a time of stress as well as time for joy.¹ It also involves a number of challenges which revolves around learning infant care tasks, getting to know the infant, and confronting one's self expectation as a mother.²

Mercer defined maternal role as a process in which the mother achieves competence in the role and integrates the mothering behaviors into her established role so that she is comfortable with her identity as a mother.³ Perceived maternal role competence is a mother's judgment of how well she can function in a care giving capacity and address specific tasks or challenges related to the parenting role.⁴

The capacity of the mother to provide adequate, skillful and sensitive care for her infant during this early most dependency and sensitive period is very essential and depends on the maternal role competence.⁵ The major component of maternal role attainment is the mother's acquisition of competence in providing the skillful, sensitive care that fosters infant's development.⁶

Becoming a mother can cause anxiety because of the change of role from being a non-parent and responsible only for one's self to having responsibilities for caring a new baby. When there is lack of confidence among mothers in the postpartum period, it may have negative effect on the experience of motherhood and adequate caring of the infant.⁷ The quality of the transition to motherhood and women's achievement of competence in the maternal role involves multiple factors, such as age, socioeconomic status, self-concept, childrearing attitudes, previous experience with child, maternal and infant health status, family functioning, stress and support system which are, in turn, influenced by a woman's social and cultural background. Positive parenting and healthy development of a child is enhanced by development of the

sense of competence and satisfaction with the maternal role.²

As per WHO report, support is necessary for maternal and infant well being.⁸ Support from family members and close friends has been identified in previous studies as important in facilitating the maternal role taking.⁷

In the context of developing countries, much emphasis has been given to studies and issues related to the improvement of maternal and child health ; there are few published studies done on the aspects related to how mothers perceive their own maternal competence which is considered to be the builder of maternal confidence in carrying out her infant's care and factors associated with them.⁹ Thus, this study aimed to assess the perceived maternal role competence of mothers and find out the association of perceived maternal role competence with selected variables.

MATERIALS AND METHODS

A descriptive cross-sectional study was conducted in immunization clinics of Dharan, Nepal among mothers of infants. Immunization clinics were chosen by simple random sampling method. Among the 10 immunization clinics, 4 were drawn by using lottery method. The clinics drawn were immunization clinics of ward no. 4, ward no. 17, Family planning association of Nepal (FPAN), and B.P. Koirala Institute of Health Sciences. The number of participants included in the study from each immunization clinic was selected proportionately on the basis of the number of attendance record in the last fiscal year. Then, those mothers attending immunization clinics for their infant's immunization were selected purposively. To calculate the sample size, reference of mean and standard deviation was taken from the study by Ngai FW and Chan SWC et al., in which "Parent sense of competence" scale was used. The mean and S.D. of the scale was 69.1 (10.5). Considering the confidence interval of 95%, power of 90%, tolerance of 2 and S.D. of

10, the sample size was calculated by following formula: $n = [(Z\alpha + Z\beta)S/\delta]^2$. Including 10% permissible error, the sample size was calculated 289.3, so a total of 290 mothers were included in the study.

Mothers who had delivered a singleton term infant and currently taking care of the infant were included in the study. Mothers with adopted infant, major health problems, congenital anomalies and not willing to participate were excluded from the study. Permission was obtained from Ethical Review Board of B.P. Koirala Institute of Health Sciences, Dharan and the authorities of immunization clinics. Informed written consent was obtained from mothers prior to the interview. Privacy and confidentiality was maintained throughout the study. Free withdrawal anytime from the study was considered.

Data were collected in the identified setting using predesigned, pretested, locally translated and standardized instrument using interview schedule by researcher from February 2014 to May 2014. Interview schedule was used to collect information on socio-demographic information and perceived maternal role competence was assessed by 16 item parenting sense of competence scale (PSOC) by Gibaud-Wallston and Wandersman.¹⁰ The PSOC has two subscales, each assessing a different aspect of parenting. The degree of parent's perception of acquired skills and understanding to be a good parent is determined by skill/knowledge subscale. The degree to which the individual values parenthood and is comfortable to that role is determined by valuing/comfort subscale. Respondents indicate the degree of their agreement or disagreement with each statement on a 6 point Likert-type scale from 1 (strongly agree) to 6 (strongly disagree). Reported α coefficient for total PSOC scores range from .82 to .87.⁵ To assess self esteem, 10 item Rosenberg's self esteem scale was used, the responses were reported on a four point continuum from "strongly agree" to "strongly disagree".¹¹ Cronbach alpha coefficient

ranged from 0.84 to 0.90.⁹ Social support was measured by Webster et al.'s (2000) six item self reporting five point Likert scale ranging from always to never. Scale score ranges from 6-30, with higher score indicating higher perceived support. Scores were interpreted as follows: 0-18: Low support, 19-24: Medium support, and >24: adequate support.¹²

Standardized tools were used for data collection. For content validity, consultation with the research supervisor and experts in the related field was done. The tool was translated in local language, i.e. Nepali, and then back translated to English after consultation with language experts. Pretesting was done in 10% of the samples, i.e. 29 mothers. On reliability testing, standardized Cronbach's alpha of tool used to assess perceived maternal role competence was 0.739. The collected data were entered into Ms-Excel 2007 and analyzed by SPSS version 16, using descriptive statistics and inferential statistics (Independent sample t-test and One-Way ANOVA, Pearson's and spearman correlation). For multivariate method, stepwise regression analysis was used. Variables which were statistically significant were included in the final model to find out the consistent predictor of perceived maternal role competence. The level of significance was set at 0.05.

RESULTS

As shown in Table 1, the majority of the mothers belonged to the age group of 20-35 years (85.2%); 77.7% were Hindus, 92.8% were literate, 83.1% were housewives and 77.6% were from urban areas. More than half (54.8%) had per capita income less than US\$1.25 per day.

Nearly half (45.9%) of the mothers were married at age less than 19 years. The majority of them were primiparous (70.3%) and had planned pregnancy (81.4%). More than half (52.8%) of the mothers had no experience of child rearing. Regarding the source of infant care, 59.6% of the mothers responded that they learned child rearing by themselves

Table 1: Socio-demographic and obstetric characteristics of the mothers

Characteristics	Category	n (%)
Age(year)	≤19	40 (13.8)
	20-35	247 (85.2)
	>35	3 (1.0)
Religion	Hindu	225 (77.7)
	Muslim	2 (0.7)
	Christian	27 (9.3)
	Buddhist	22 (7.6)
	Kirat	14 (4.8)
Educational status	Illiterate	21 (7.2)
	Up to secondary level	156 (53.9)
	Higher education	113 (38.9)
Occupation	Housewife	241 (83.1)
	Agriculture	2 (0.7)
	Business	15 (5.2)
	Service	30 (10.2)
	Labour	2 (0.7)
Per capita income in US\$	≤1.25	159 (54.8)
	>1.25	131 (45.2)
Residence	Rural	65 (22.4)
	Urban	225 (77.6)
Age of marriage (years)	≤ 19	133 (45.9)
	19-25	110 (37.9)
	>25	47 (16.2)
Parity	Primiparous	204 (70.3)
	Multiparous	86 (29.7)
Readiness for pregnancy	Planned	236 (81.4)
	Unplanned	54 (18.6)

Distribution of the scores of perceived maternal role competence, self esteem and social support are shown in Table 2.

The majority (95.2%) of the mothers had normal self esteem. High social support was received by 63.4% of the mothers whereas only 2.8% reported receiving low social support. Most of the mothers (64.5%) reported their husband as their support person for infant care. Every mother had at least one support person and the range was from 1-4 persons.

It was found that there was a significant difference of perceived maternal role competence with the age of the mother ($P<0.001$), education ($P=0.048$), occupation ($P=0.001$) and readiness for pregnancy ($P=0.022$) (Table 3).

The study findings showed that there was a positive correlation between perceived maternal role competence and age at marriage ($r=0.132$, $P=0.024$), per capita income

($r=0.118$, $P=0.045$), self esteem ($r=0.379$, $P<0.001$), social support ($r=0.272$, $P<0.001$), and the number of support persons available ($r=0.119$, $P=0.043$) (Table 4).

On multiple regression analysis, the age of the mother, social support and self esteem was the consistent predictor and on stepwise regression analysis, self esteem was a consistent major predictor of perceived maternal role competence of the mother (Table 5).

DISCUSSION

The score of valuing/comfort subscale was more than that of knowledge/skill subscale of the parent's sense of competence scale, which shows that the mothers gave more value to their role and were comfortable with it rather than being satisfied with the role. The mean score of the competence was similar to the results of Ngai et al.'s study conducted in China in

Table 2: Distribution of scores of perceived maternal role competence, self esteem and social support

Scale	Domains	No. of items	Obtainable score	Mean±SD
Perceived maternal role Competence	Skill/knowledge	9	9-54	31.06±6.01
	Valuing/comfort	7	7-42	33.29±3.75
	Total	16	16-96	64.34±7.90
Self esteem	-	10	0-30	20.88±3.55
Social support	-	6	6-30	25.20±3.19

Table 3: Association of perceived maternal role competence with selected variables

Characteristics	Category	Perceived maternal role competence (Mean±SD)	P value
Age (years)	≤19	58.72±8.68	<0.001*
	>19	65.24±7.40	
Religion	Hindu	64.36±8.10	0.785**
	Muslim	65.00±11.31	
	Christian	62.89±5.83	
	Buddhist	64.64±7.35	
	Kirat	66.21±9.32	
Education	Illiterate	62.76±7.58	0.048**
	Up to secondary level	63.53±8.05	
	Higher education	65.75±7.61	
Occupation	House wife	63.59±7.88	0.001*
	Job holders	67.56±7.26	
Residence	Rural	63.74±8.80	0.486*
	Urban	64.52±7.39	
Parity	Primiparous	64.14±8.21	0.499*
	Multiparous	64.83±7.16	
Readiness for pregnancy	Planned	64.85±7.48	0.022*
	Unplanned	62.13±9.30	

*Independent sample t-test; **One-way ANOVA

Table 4: Relationship of perceived maternal role competence with selected variables

Characteristics	Mean±SD/ Median/IQR	Perceived maternal role competence	
		r/rho value	P value
Age of mother	24.32±4.56	0.152	0.010*
Age at marriage	20.37±3.64	0.132	0.024*
Per capita income	1.08(0.65-2.17)	0.118	0.045**
Self esteem	20.88±3.55	0.379	<0.001*
Social support	25.20±3.19	0.272	<0.00*
Number of support persons	2.37±0.91	0.119	0.043*

*Pearson’s correlation; **Spearman’s correlation

Table 5: Multiple regression analysis for variables predicting perceived maternal role competence

Variables	R	R ²	Adjusted R ²	Standard Error of the estimate	F change	Significant F change
Self esteem	0.379	0.143	0.140	7.330	48.218	0
Social support	0.434	0.189	0.183	7.147	15.950	0
Age	0.454	0.206	0.197	7.083	6.197	0.013

which 17 item PSOC scale was used and the mean score was 69.1 (10.5).⁹ The difference in perceived competence might be because of cultural differences.

The study findings showed that self esteem of the mothers was the major consistent predictor of perceived maternal role competence. The result was consistent with the findings by Ngai et al. and Mercer RT et al.^{13,3} Thus, mothers who have a high level of self esteem are able to deal with transition to maternal role as challenge and perceive themselves competent in their role.

Mothers below the age of 19 years had a low perceived maternal role competence in comparison to mothers above 19 years. The result was supported by Ngai FW et. al.⁹ Similar findings were observed in the study of Mercer and Ferketich, indicating that the adolescent mother is more likely challenged by the physical, emotional and cognitive demands and problem solving required for competent infant care.³ In the present study, perceived maternal role increased with age; this may be because the mothers mature with age, are able to tackle with difficulties, and are comfortable with their role.

The mothers with higher education perceived themselves significantly more competent in their maternal role. The result was consistent with that of the study of Gilmore et al.¹⁴ Mothers who were job holders perceived themselves more competent in comparison to housewives, whereas, results from the study conducted by Ngai et.al revealed employment status was not associated with maternal role competence.¹⁵ The finding from this study may be because the housewives are responsible for taking care of their infant for 24 hours whereas working mothers get certain hours relief from their role and share the infant care with their support person. There was a positive correlation between perceived maternal role competence and per capita income. However, the study of Ngai et. al reported that income was not associated with maternal role competence.¹⁵ The result from the present study might be

because with adequate income the mother may feel financially secured and stable, resulting in confidence and competence in the maternal role.

There was no significant difference in perceived maternal role competence of primiparous and multiparous mothers. The study results were in accordance with Mercer RT et al. that reported previous experience in mothering was not an advantage.³ The mothers who had planned their pregnancy perceived themselves as more competent. This might be because unplanned mothers were not ready to take up the new role as the mother.

The study result showed a positive correlation of perceived maternal role competence with social support. The study finding was in accordance with the study findings by Tarka MT et.al and Warren et al.^{7,16} Social support from family and friends can have a considerable influence on how mothers view themselves and in the care of their infant; thus, the mother perceives herself more competent in her role. There was a positive correlation between perceived maternal role competence and the number of support persons available. With increase in the number of persons present for assistance in infant care, the maternal role competence increased.

The strength of the study was its large sample size. The limitation of the study was data collection which was conducted only once; since perceived maternal role competence is a process that evolves over time, extended research at multiple times is required.

CONCLUSION

As self esteem was the major consistent predictor of perceived maternal role competence, special care and attention is required to boost the self esteem of mothers during transition to motherhood. With better social support, mothers were more comfortable and satisfied with their role. Thus mothers need adequate support from family, friends and health professionals for caring of their infant as well as themselves.

Education and support by the nurses and

family throughout the period of postpartum and infancy helps the mother to increase competence in her maternal role. Thus, achievement of competence in maternal role promotes positive parenting behaviors which further promote child development.

ACKNOWLEDGEMENT

The authors would like to thank all the mothers who took part in this investigation and helped us to conduct the research.

Conflict of Interest: None declared.

REFERENCES

- 1 Eaton MM. Self-efficacy in first time mothers: A comparison of younger and older mothers [Thesis]. Manhattan (US): Kansas state university; 2007.
- 2 Mercer RT. Becoming a mother versus maternal role attainment. *Journal of Nursing Scholarship*. 2004;36:226-32.
- 3 Mercer RT, Ferketich SL. Experienced and Inexperienced Mothers' Maternal Competence During Infancy. *Research in Nursing & Health*. 1995;18:333-43.
- 4 Kuhn JC, Carter AS. Maternal self-efficacy and associated parenting cognitions among mothers of children with autism. *The American Journal of Orthopsychiatry*. 2006;76:564-75.
- 5 Bornstein MH. *Handbook of Parenting: Volume 3 Being and Becoming a Parent*. 2nd ed. Mahwah New Jersey: Lawrence Erlbaum Associates publishers; 2002.
- 6 Harwood K, McLean N, Durkin K. First-time mothers' expectations of parenthood: What happens when optimistic expectations are not matched by later experiences? *Developmental Psychology*. 2007;43:1-12.
- 7 Warren PL. First-time mothers: social support and confidence in infant care. *Journal of Advanced Nursing*. 2005;50:479-88.
- 8 World Health Organization. *Make every mother and child count. A tool kit for organizers of activities*. Switzerland: WHO; 2005.
- 9 Ngai FW, Wai-Chi Chan S, Ip WY. Predictors and Correlates of Maternal Role Competence and Satisfaction. *Nursing Research*. 2010;59:185-93.
- 10 Gibaund Wallstone J, Wanderman LP. Development and utility of the parenting sense of competence scale. *Proceedings of the 86th annual convention of the American Psychological Association*. Toronto (Canada): American Psychological Association; 1978.
- 11 Rosenberg M. *Society and the adolescent self-image*. Princeton (US): Princeton University Press; 1965.
- 12 Webster J, Linnane JW, Dibley LM, et al. Measuring social support in pregnancy: can it be simple and meaningful? *Birth*. 2000;27:97-101.
- 13 Ngai FW, Wai-Chi Chan S, Holroyd E. Translation and Validation of a Chinese Version. *Nursing Research*. 2007;56:348-54.
- 14 Gilmore L, Cuskelly M. Factor structure of the parenting sense of competence scale using a normative sample. *Child: Care, Health and Development*. 2009;35:48-55.
- 15 Ngai FW, Chan SW. Stress, maternal role competence, and satisfaction among Chinese women in the perinatal period. *Research in Nursing & Health*. 2012;35:30-9.
- 16 Tarkka MT. Predictors of maternal competence by first-time mothers when the child is 8 months old. *Journal of Advanced Nursing*. 2003;41:233-40.