AJ J Med Sci 2025;2(1):27–33

Online ISSN: 3049-2742

A J Journal of Medical Sciences

AJ Journal of Medical Sciences

ORIGINAL ARTICLE

Perceived Social Support among Post Natal Mothers of Preterm Infants in a Selected Hospital in Mangalore

K V Ashwini[1],*, Theresa L Mendonca[2]

[1]*II MSc Nursing, Laxmi Memorial College of Nursing, Mangalore, Karnataka, India*
[2]*Vice Principal and H.O.D, Department of Paediatric Nursing, Laxmi Memorial College of Nursing, Mangalore, Karnataka, India*

ARTICLE INFO

Article history:
Received 22.07.2024
Accepted 02.01.2025
Published 31.03.2025

* *Corresponding author.*
K V Ashwini
achukv20@gmail.com

https://doi.org/10.71325/ajjms.v2i1.24.7

ABSTRACT

Introduction: Pregnancy and childbirth are two of a woman's most important life milestones. A preterm delivery can negatively affect a family's structure since it requires the parents to change their daily routine and adapt to new obligations. One of the most important factors affecting the psychological health of postpartum mothers of preterm infants and the general health of the mother and child is the perception of social support. The purpose of this study is to determine the degree of social support that postpartum mothers of premature babies admitted to the NICU receive. **Methods:** A descriptive cross-sectional research design was used to assess the level of social support of 75 post-natal mothers of preterm infants admitted to the NICU who were chosen using the purposive sampling method. The required data was collected using a sociodemographic profile and a multidimensional scale of perceived social support. The data was analyzed using descriptive and inferential statistical tests such as mean, frequency, percentage, mean percentage, and Fisher exact. **Results:** The study found that the majority (85.3%) of mothers had a high level of social support. According to the area-wise research, the majority of mothers received social support from all three categories, including family, friends, and significant others received 79.6%, 73.9%, and 79.6%, respectively. **Conclusion:** The study of social support among postnatal mothers of preterm infants admitted to the NICU found that the majority of these women receive extensive support from friends, family, and significant others. This research emphasizes the critical role that a strong social network plays in mothers' well-being during the difficult postnatal period, especially when their infants require urgent medical care. High social support can dramatically reduce stress and promote better mental health outcomes for mothers, hence improving the care and development of their preterm infants.

Keywords: Social support; Postnatal mothers; Preterm infants

INTRODUCTION

In order to preserve the physical, psychological, and social equilibrium of the family, significant adjustments must be made to the mother's and the other family members' lifestyles, roles, and duties as the newborn enters the world.[1] Mothers feel a range of emotions in such situations and because of the degree of changes, including love, happiness, stress, concern, and even shock.[2] A preterm delivery can negatively affect a family's structure since it requires the parents to change their daily routine and adapt to new obligations. This is particularly valid at the time of the infant's admission to the neonatal intensive care unit. Giving birth to a sick or premature baby is a challenging event for parents.[3] Parents of infants admitted to Neonatal Intensive Care Units (NICUs) have a set of more urgent needs compared to parents of infants in different units. These prerequisites include involvement in their child's care, communication, social support, trust, and awareness of their own and the unit's procedures, equipment, and health status of their child.[4] As a result, parents need support from their social networks and from medical specialists.[5] Social support is any kind of help real or perceived that an individual can get from other people, organisations, and the community at large through their social ties.[6] The term "social support" describes the tangible and intangible help that people often provide to those who are under stress. People must rely on their other friends and family members during difficult or emotionally taxing moments.[7]

Even in difficult circumstances, people can feel a part of society when they have social support. This could lead to improvements in their self-worth, emotional stability, and sense of control.[8] It also lessens the physical and emotional strain that stress produces while attending to the person's interpersonal needs.[9] Research indicates that social support might mitigate parental stress and function as a safeguard against the stress experienced by both parents following a premature birth.[10] The overall well-being of the family, the dynamics between the parents, and the growth and progress of the child can all be negatively impacted by increased levels of stress. Therefore, it is imperative to take into account social support and its influence on the resilience of the parental relationship when addressing preterm birth. Adequate social support can effectively reduce parental stress, which is beneficial for the well-being of the prematurely born child as well as the parents.[11] A study was undertaken in Northern Jordan to examine the impact of perceived social support during pregnancy on postpartum infant-related anxiety in women. The study revealed that obtaining emotional support from close social networks (β = -0.08, p = 0.01) and informational support from health care providers (β = -0.71, p < 0.01) were identified as factors that help reduce postpartum anxiety related to the safety and well-being of the infant.[12] In order to determine the support needs, enhance the emotional and physical health of mothers, foster the development of a strong relationship between mother and newborn, encourage active participation of parents in caregiving, and reduce feelings of stress and anxiety, it is essential to assess the level of perceived social support among mothers of premature infants in the Neonatal Intensive Care Unit (NICU). It allows healthcare practitioners to tailor support programmes and treatments to the particular needs of each mother and her infant during this critical period. This study sought to assess the extent of felt social support among postnatal mothers of preterm babies who were admitted to the Neonatal Intensive Care Unit (NICU). The researchers utilised a multidimensional scale of perceived social support for this purpose.

MATERIALS AND METHODS

Study Design

The study employed a descriptive cross-sectional research methodology to evaluate the extent of social support among postnatal moms of preterm infants.

Setting and Sample

The investigation was carried out in a postnatal ward at a selected hospital in Mangalore. Postnatal mothers of premature babies admitted to the NICU, willingness to participate, marital status, and absence of physical disease are among the inclusion criteria. Preterm newborns with congenital abnormalities and other disorders, postpartum mothers with substance misuse issues and mental illness, and mothers who had gone through a personal or family crisis in the preceding six months are among the exclusion criteria. Using the percentage of social support level as a referral to the other study, a sample size of 75 was established.

Measures/tools

A demographic questionnaire was created to gather participant data including maternal age, religion, educational attainment, occupation, and monthly family income, mode of delivery, completed months of pregnancy, history of still birth, number of livebirths, number of admissions in days, type of family, previous history of preterm delivery, gender, birth weight and birth order of baby.

Social support was assessed by the Multidimensional Scale of Perceived Social Support (MSPSS). It is a measurement tool used to assess an individual's perception of support from various social sources. The MSPSS, created by Zimet et al in 1988, is a concise and direct scale consisting of 12 items. Its purpose is to subjectively evaluate the adequacy of perceived assistance. The measure comprises three subscales, each consisting of four items that are assessed on a 7-point Likert-type scale. The subscales consist of three categories: family (items 3, 4, 8, and 11), friends (items 6, 7, 9, and 12), and important people, such as spouses (items 1, 2, 5, and 10). The total score is calculated by adding up all of the subscale scores. The possible range for the total score is from 12 to 84. Grading of the score was calculated by a method of arbitrary classification. Where 12-36 indicates low perceived support, 36-60 indicates medium support and 60-84 indicates that high support level.

Data Collection

When post-natal mothers were present in ward, their comfort is ensured through the use of general inquiries regarding the infant and her well-being. The researcher provided an introduction and clearly explained the goal of the study, as well as the overall length required to complete the questionnaires, to the woman. Written consent was obtained using the traditional pen and paper method. Each participant took an average of 10-15 minutes to complete all the questionnaires. The researcher then evaluated the gathered forms to ensure they were complete. If any incomplete items were identified, the participants were promptly approached to provide the necessary information for those items.

Ethical Consideration

Approval was received from the Institutional Ethical Committee. The DCIG Registration Number is EC/NEW/INST/2020/741.

Data Analysis

Statistical analysis of the data was done using SPSS 23.0. The sociodemographic features of postnatal women were described using descriptive statistics, such as frequency percentages. The level of social support in each area was described using frequency, percentage, mean, standard deviation, and mean percentage. The item-wise analysis of social support was described using the mean, standard deviation, and mean percentage. To determine the association between the level of social support and socio-demographic characteristics using Fisher's exact test.

RESULTS

Demographic Characteristics of the Participants

The baseline proforma of the participants showed that the highest percentage (48%) of mothers were between the ages of 25 and 30 years, while the least percentage (5.3%) were between the ages of 35 and 40 years. The highest percentage (44%) of mothers were Hindus, whereas the least percentage (20%) were Christians. The highest percentage (45.3) of mothers were graduates. The highest percentage (25.3%) of the mothers were unemployed, whereas the least percentage (2.7%) of mothers were technicians or associated professionals. The least percentage (20%) of the mother's family had an average monthly income of Rs. 22,001-37000. The highest percentage (58.7%) of mothers had a normal vaginal delivery, while least of them (2.7%) instrumental delivery. The highest (57.3%) percentage of mothers completed a total duration of 34 weeks - 37 weeks of pregnancy and the least percentage (10.7%) had completed <30 weeks. The majority (96%) of the mothers had no previous experience of stillbirth, while the least percentage (4%) had a history of stillbirth. The highest (56%) percentage of mothers had 1-2 live births whereas the least (1.3%) had more than 4 livebirths. The majority (72%) of mothers were admitted for more than 15 days whereas the least (28%) were admitted for less than 15 days. Highest (50.7% & 49.3%) percentage of mothers were from nuclear and joint families. The majority (76%) of the mothers had no history of previous preterm delivery whereas the least (24%) percentage of the mothers were had a history of previous preterm delivery. The highest (53.3%) percentage of the mothers delivered female babies. The highest (54.7%) percentage of babies' birth weight was more than1800 grams whereas the least (8%) percentage had birthweight less than 1200 grams. The highest (48%) percentage of the babies' birth order was third and the least (2.7%) were fourth and above birth order (Tables 1 and 2).

Table 1: Frequency and Percentage Distribution of the mothers of preterm infants and preterm infants according to baseline characteristics (N=75)

Variables		Frequency	Percentage
Age of mother (in Years)	<20	5	6.7
	20-25	11	14.7
	25-30	36	48.0
	30-35	19	25.3
	35-40	4	5.3
Religion	Hindu	33	44.0
	Christian	20	26.7
	Muslim	22	29.3
Educational status	Primary education	15	20.0
	Secondary education	26	34.7
	Graduate	34	45.3
Occupation	Technicians/associate professionals	2	2.7
	Clerk	4	5.3
	Skilled worker, shop and market sales workers	8	10.7
	Skilled agricultural and fishery workers	10	13.3
	Craft and related trade workers	16	21.3
	Plant and machine operators and assemblers	6	8.0
	Elementary occupation	10	13.3
	Unemployment	19	25.3
Monthly family income in rupees	55001-60000	10	13.3
	46001-55000	13	17.3
	37,001-46000	12	16.0
	22,001-37000	20	26.7
	7,501-22,000	16	21.3
	≤7,500	4	5.3
Mode of Delivery	Normal vaginal delivery	44	58.7
	Caesarean	29	38.7
		2	2.7

Level of Social Support

The level of social support among post-natal mothers of preterm infants shows that the majority 64 (85.3%) of post-natal mothers had high social support, 11 (14.7%) had medium social support and none had low social support (Table 3).

Table 2: Frequency and Percentage Distribution of the mothers of preterm infants and preterm infants according to baseline characteristics (n=75)

Variables		Frequency	Percentage
Total completed months during the antenatal period	<30weeks		
	30weeks - 34weeks	24	32.0
	34weeks -37 weeks	43	57.3
Having any history of still birth?	Yes	3	4.0
	No	72	96.0
Number of live births	1 to 2	42	56.0
	3 to 4	32	42.7
	>4	1	1.3
Total number of admissions in days	<15 days	21	28.0
	>15 days	54	72.0
Type of family	Nuclear family	38	50.7
	Joint family	37	49.3
Previous history of preterm delivery	Yes	18	24.0
	No	57	76.0
Gender of the baby	Male	35	46.7
	Female	40	53.3
Birth weight of baby in kg	<1200 grams	6	8.0
	1200-1800 grams	28	37.3
	>1800 grams	41	54.7
Birth order of the child	First	24	32.0
	Second	13	17.3
	Third	36	48.0
	4 and above	2	2.7

Table 3: Level of social support among post-natal mothers of preterm infants (n=75)

Level of social support	Score Range	Frequency	Percentage
Low support	12 - 36	-	-
Medium support	36 - 60	11	14.7
High support	60 - 84	64	85.3

Area-Wise Level of Social Support

The area-wise analysis indicates the majority of respondents reported high levels of social support from friends (73.9%), family (79.6%), and significant others (79.6%), which demonstrates that friends, family, and significant others provided postnatal mothers of preterm infants with a high level of social support (Figure 1, Table 4).

Item-Wise Level of Social Support

The item-wise analysis shows that the majority of the samples had higher social support. The mean percentage was highest for the item "my family really tries to help me" (84%), "I have a special person who is a real source of comfort to me" (82.1%), "there is a special person with whom I can share joys and sorrows" (80.4%). Similar findings are also observed for the item "I can talk about my problems with my family" (79.6%), "I get the emotional help and support I need from my family" (79.2%), "There is a special person who is around when I am in need" (78.3%), "There is a special person in my life who cares about my feelings" (77.5%), "My family is willing to help me make decisions" (75.6%), "I can talk about my problems with my friends" (74.7%), "I have friends with whom I can share my joys and sorrows" (74.5%), "My friends really try to help me" (73.3%) and for "I can count on my friends when things go wrong" (73.1%) (Figure 2, Table 5).

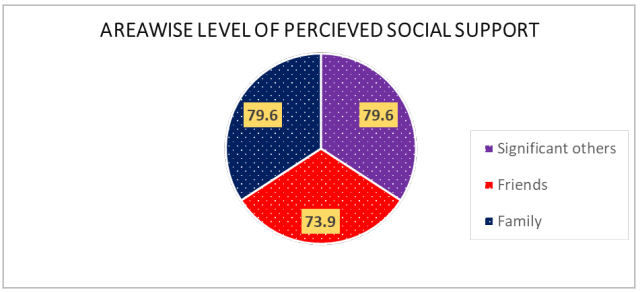

Fig. 1: Area-wise level of perceived social support

Table 4: Mean, S.D, Mean percentage of social support subscales (n=75)

Subscales	Range of score	Mean	S. D	Mean percentage
Significant others	3.8-6.8	5.57	0.58	79.6
Friends	3.5-6.75	5.17	0.71	73.9
Family	3.75-6.75	5.57	0.64	79.6

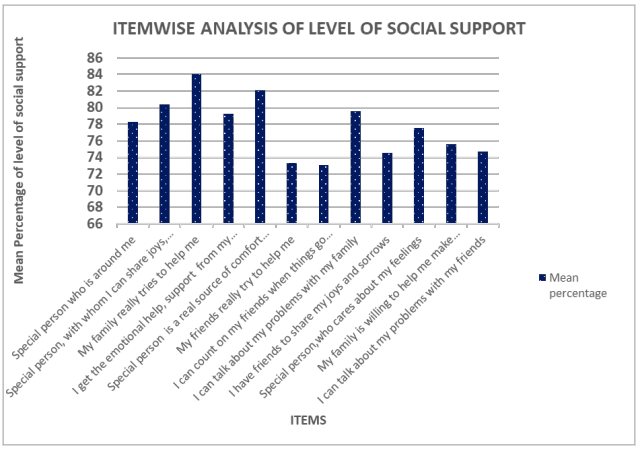

Fig. 2: Item-wise level of perceived socisal support

Table 5: Mean, S.D, Mean percentage of each Item of social support scale (n=75)

Item	Range of score	Mean	S. D	Mean percentage
There is a special person who is around when I am in need	4-7	5.48	0.79	78.3
There is a special person with whom I can share joys and sorrows	4-7	5.63	0.78	80.4
My family really tries to help me	3-7	5.88	0.82	84
I get the emotional help and support I need from my family	3-7	5.55	0.84	79.2
I have a special person who is a real source of comfort to me	4-7	5.75	0.7	82.1
My friends really try to help me	4-7	5.13	0.92	73.3
I can count on my friends when things go wrong	3-7	5.12	0.79	73.1
I can talk about my problems with my family	4-7	5.57	0.79	79.6
I have friends with whom I can share my joys and sorrows	3-7	5.21	0.84	74.5
There is a special person in my life who cares about my feelings	3-7	5.43	0.89	77.5
My family is willing to help me make decisions	4-7	5.29	0.85	75.6
I can talk about my problems with my friends	4-7	5.23	0.8	74.7

Association of Level of Social Support with selected Socio-Demographic variables

There is a significant association between social support and the religion (p 0.044) and type of family (p 0.028) and no significance with rest of the variables. Hence, hypothesis H1 stated there will be a significant association between basic demographic characteristics and level of perceived social support were partly accepted at 0.05 level (Tables 6 and 7).

Table 6: Association of level of social support with selected socio demographic variables (n=75)

Variables		Social support		
		<Median (66)	>=Median (66)	p value
		Frequency	Frequency	
Age of mother (in Years) #	<20	2	3	0.745
	20-25	6	5	
	25-30	16	20	
	30-35	11	8	
	35-40	1	3	
Religion	Hindu	17	16	0.044*
	Christian	13	7	
	Muslim	6	16	
Educational status	Primary education	8	7	0.560
	Secondary education	14	12	
	Graduate	14	20	
Occupation#	Technicians / associate professionals	0	2	0.446
	Clerk	1	3	
	Skilled worker, shop and market sales workers	6	2	
	Skilled agricultural and fishery workers	6	4	
	Craft and related trade workers	6	10	
	Plant and machine operators and assemblers	4	2	
	Elementary occupation	4	6	
	Unemployment	9	10	
Monthly family income in rupees#	55001-60000	6	4	0.358
	46001-55000	3	10	
	37,001-46000	7	5	
	22,001-37000	10	10	
	7,501-22,000	7	9	
	) ≤7,500	3	1	

Table 7: Association of level of social support with selected socio-demographic variables (n=75)

Mode of Delivery#	Normal vaginal delivery	17	27	0.090
	Caesarean	18	11	
	Instrumental	1	1	
Total completed months during antenatal period#	<30weeks	5	3	0.391
	30weeks - 34weeks	9	15	
	34weeks -37 weeks	22	21	
Having any history of still birth? #	Yes	1	2	1.000
	No	35	37	
Number of live births	1 to 2	19	23	0.724
	3 to 4	16	16	
	>4	1	0	
Total number of admissions in days	<15 days	10	11	0.967
	>15 days	26	28	
Type of family	Nuclear family	23	15	0.028*
	Joint family	13	24	
Previous history of preterm delivery	Yes	9	9	0.846
	No	27	30	
Gender of the baby	Male	17	18	0.926
	Female	19	21	
Birth weight of baby in kg#	<1200 grams	4	2	0.686
	1200-1800 grams	13	15	
	>1800 grams	19	22	
Birth order of the child#	First	12	12	0.619
	Second	4	9	
	Third	19	17	
	4 and above	1	1	

*Significant; # Fisher's exact test used

DISCUSSION

Perceived social support is known to protect a woman's mental health against physical and psychological disturbances associated with the postpartum period. This study aimed to evaluate the level of perceived social support among mothers who have given birth to preterm infants. The primary sources of social support in this study were family members, friends, and significant others. In the present study Majority 64 (85.3%) of post-natal mothers were had high social support, 11 (14.7%) were had medium social support and none had low social support. Also, In the study area wise analysis showed a mothers received higher level of perceived social support from all three areas like family, friends, and significant others (79.6%,73.9%,79.6%) respectively and also, we found that significant association between type of family and religion with the level of social support. This could be because of the fact that in the Indian culture, most of the life partner gives total support throughout the life, even parents and grandparents and other family members support the mother too. A woman who receives substantial social support during the postpartum period experiences less fatigue, increased personal time, enhanced bonding with the baby, improved postpartum functional state, and greater ease in adapting to her physical and psychological demands, as well as to parenting.[13] Other similar study conducted by Nabanita Chandra, Moonjelly Vijayan Smitha in two immunization clinic centres in Bhubaneswar, Odisha found that postnatal women of eastern India (70%) had a high level of perceived social support.[14] Overall, this study suggests that at present generation there is high level of social support to postnatal mothers of preterm infants especially from family, friends and significant others.

CONCLUSION

The perceived social support from family, friends and significant others plays a crucial role in the wellbeing of postnatal mothers, particularly those with preterm babies. A higher level of perceived support typically correlates with better maternal mental health, lower levels of stress and increased confidence in caregiving abilities. Mothers who perceive strong support from their social network often report feeling more capable of coping with the challenges of caring for a preterm baby. On the other hand, mothers with moderate levels of perceived social support may still benefit from some positive outcomes, though to a lesser extent. They may experience greater fluctuations in stress levels and emotional well-being compared to those with higher levels of support. Overall, fostering a supportive environment, including support from family, friends, and significant others, is crucial for the well-being of postnatal mothers of preterm babies. Health professionals and support networks should work together to ensure that mothers receive adequate support tailored to their individual needs, which may vary based on the level of perceived support they experience.

REFERENCES

1. Zerach G, Magal O. Exposure to stress during childbirth, dyadic adjustment, partner's resilience, and psychological distress among first-time fathers. *Psychology of Men & Masculinity*. 2017;18(2):123–133. Available from: https://psycnet.apa.org/doi/10.1037/men0000048.
2. Entsieh AA, Hallström IK. First-time parents' prenatal needs for early parenthood preparation-A systematic review and meta-synthesis of qualitative literature. *Midwifery*. 2016;39:1–11. Available from: https://doi.org/10.1016/j.midw.2016.04.006.
3. Gönülal D, Yalaz M, Altun-Köroğlu O, Kültürsay N. Both parents of neonatal intensive care unit patients are at risk of depression. *Turkish Journal of Pediatrics*. 2014;56(2):171–176. Available from: https://pubmed.ncbi.nlm.nih.gov/24911852/.
4. Fisher MD. Identified needs of parents in a pediatric intensive care unit. *Crit Care Nurse*. 1994;14(3):82–90. Available from: https://pubmed.ncbi.nlm.nih.gov/8194354/.
5. Bialoskurski MM, Cox CL, Wiggins RD. The relationship between maternal needs and priorities in a neonatal intensive care environment. *Journal of Advanced Nursing*. 2002;37(1):62–69. Available from:

https://doi.org/10.1046/j.1365-2648.2002.02057.x.
6. Kruithof WJ, Van Mierlo ML, Visser-Meily JM, Van Heugten CM, Post MWM. Associations between social support and stroke survivors' health-related quality of life-A systematic review. *Patient Education and Counseling*. 2013;93(2):169–176. Available from: https://doi.org/10.1016/j.pec.2013.06.003.
7. Wigert H, Johansson R, Berg M, Hellström AL. Mothers' experiences of having their newborn child in a neonatal intensive care unit. *Scandinavian Journal of Caring Sciences*. 2006;20(1):35–41. Available from: https://doi.org/10.1111/j.1471-6712.2006.00377.x.
8. Gondwe KW, Yang Q, White-Traut R, Holditch-Davis D. Maternal psychological distress and mother-infant relationship: Multiple-birth versus singleton preterm infants. *Neonatal Network*. 2017;36(2):77–88. Available from: https://doi.org/10.1891/0730-0832.36.2.77.
9. Turville N, Alamad L, Denton J, Cook R, Harvey M. Supporting multiple birth families: Perceptions and experiences of health visitors. *Public Health Nursing*. 2022;39(1):229–237. Available from: http://dx.doi.org/10.1111/phn.13008.
10. Ghorbani M, Dolatian M, Shams J, Alavi-Majd H. Anxiety, post-traumatic stress disorder and social supports among parents of premature and full-terminfants. *Iranian Red Crescent Medical Journal (IRCMJ)*. 2014;16(3):1–8. Available from: https://doi.org/10.5812/ircmj.13461.
11. Khan F, Aftab S. Marital Satisfaction and Perceived Social Support as Vulnerability Factors to Depression. *American International Journal of Social Science*. 2013;2(5):99–107. Available from: https://www.aijssnet.com/journals/Vol_2_No_5_September_2013/11.pdf.
12. Hijazi HH, Alyahya MS, Abdi RMA, Alolayyan MN, Sindiani AM, Raffee LA, et al. The impact of perceived social support during pregnancy on postpartum infant-focused anxieties: A prospective cohort study of mothers in northern Jordan. *International Journal of Women's Health*. 2021;13:973–989. Available from: https://doi.org/10.2147/IJWH.S329487.
13. Aydın R, Kukulu K. Adaptation of the Barkin scale of maternal functioning and examination of the psychometric properties. *Health Care for Women International* . 2018;39(1):50–64. Available from: https://doi.org/10.1080/07399332.2017.1385616.
14. Chandra N, Smitha MV. Functional status, social support, and anxiety among postnatal women of Eastern India. *European Journal of Obstetrics & Gynecology and Reproductive Biology*. 2023;20:1–7. Available from: https://doi.org/10.1016/j.eurox.2023.100238.