

Stress, Quality of Life, And Perceived Healthcare Trajectories Among Mothers of Hospitalized Children: A Descriptive Cross-Sectional Study

Narayan Ghorpade¹, Bahubali Geddugol^{2*}, Akkamahadevi Bergeri³, Samson Kamble⁴, Shefali Daruwala⁵, Milka Devraj⁶

¹⁻⁶Department of Mental Health Nursing, Bharati Vidyapeeth (Deemed to be University), Pune

Bharati Vidyapeeth (Deemed to be University), College of Nursing, Sangli

*Corresponding Author: Bahubali Geddugol

Bharati Vidyapeeth (Deemed to be University), College of Nursing, Sangli-Miraj Road Sangli, (Maharashtra) India.4116414

Abstract

Background of the study is the hospitalization of a child may impose substantial emotional, practical, and financial demands on mothers, who frequently remain the principal caregivers. Maternal stress, quality of life, and experiences of navigating pediatric services are interrelated dimensions of family-centered care, yet regional evidence from Sangli District, Maharashtra, remains limited. Aim of this study were to assess stress, quality of life, and perceived healthcare trajectories among mothers of children admitted to pediatric units in selected hospitals of Sangli District, Maharashtra, and to examine relationships with selected sociodemographic and clinical variables. Method used in this study is quantitative, descriptive cross-sectional design was used. The study included 350 mothers of hospitalized children recruited through purposive sampling. Eligible participants were mothers of children aged one month to 12 years who had been admitted for more than four days and who consented to participate. Data were collected using a sociodemographic questionnaire, the 18-item Parental Stress Scale, the WHOQOL-BREF, and a researcher-developed Parent/Caretaker Perception of the Pediatric Healthcare Journey Questionnaire. Descriptive statistics, independent-samples t tests, one-way analysis of variance, Tukey post hoc analysis, and Spearman's rank correlation were used. Statistical significance was set at $p < 0.05$. finally, the results proved that the mean parental-stress score was 4.36 (SD 0.22) on a five-point scale, indicating a high level of perceived stress. Mean quality-of-life scores were 57.14 (SD 10.64) for physical health, 61.95 (SD 10.84) for psychological health, 69.33 (SD 16.90) for social relationships, 68.66 (SD 9.72) for environmental health, 67.36 (SD 28.71) for overall quality of life, and 68.14 (SD 28.94) for satisfaction with health. The mean perceived healthcare-trajectory score was 3.82 (SD 0.42) on a five-point scale, suggesting generally positive perceptions of communication, coordination, information, involvement, and support. Parental stress differed significantly according to the child's age, $F = 6.493$, $p = 0.001$; mothers of children below one year, aged 1–3 years, and aged 7–9 years reported higher stress than mothers of children aged 4–6 years. Stress was not significantly correlated with healthcare trajectory or quality-of-life domains. A weak negative correlation was observed between physical-health score and satisfaction with health, $p = -0.116$, $p = 0.030$. Child gender and previous hospitalization experience were not significantly associated with the principal study variables. The conclusion of the study is Mothers of hospitalized children reported high perceived stress despite generally positive perceptions of the healthcare journey and moderate-to-good quality-of-life scores. Stress varied by the child's age but was not significantly related to healthcare-trajectory or quality-of-life scores in this sample. Pediatric services should incorporate routine maternal-stress screening, clear communication, family involvement, and accessible psychosocial support.

Keywords: Hospitalized child; maternal stress; quality of life; healthcare trajectory; pediatric nursing; family-centered care; Maharashtra.

Introduction

Child hospitalization is a stressful event for the child and the family. Mothers may experience uncertainty about diagnosis and prognosis, concern about painful procedures, disruption of family and work responsibilities, financial strain, sleep disturbance, and difficulty understanding or navigating hospital processes. These pressures may be intensified when the child requires prolonged admission or care in a high-acuity unit.

The maternal experience of hospitalization is clinically important because mothers often participate in daily care, communicate with healthcare professionals, make or support treatment decisions, and provide emotional security to the child. A mother's psychological and physical well-being may influence her ability to participate in care and may shape the child's experience of hospitalization. Conversely, timely information, respectful communication, nursing support, and opportunities for participation may improve confidence and reduce uncertainty.

Quality of life is a multidimensional construct that includes physical, psychological, social, and environmental well-being. The healthcare trajectory, as defined in this study, refers to the mother's perceived experience of moving through the pediatric healthcare system during the child's admission, including communication, information, coordination, treatment, decision-making, continuity, emotional support, and satisfaction.

Although caregiver burden and parental distress have been described in pediatric settings, evidence integrating maternal stress, quality of life, and perceived healthcare trajectories in the regional context of Sangli District is limited. The present study therefore examined these dimensions among mothers of hospitalized children in selected hospitals.

Objectives

1. To assess stress among mothers of hospitalized children.
2. To assess the quality of life of mothers of children admitted to pediatric units.
3. To assess mothers' perceptions of the pediatric healthcare trajectory.
4. To determine the relationship between stress, quality of life, and perceived healthcare trajectory.
5. To determine the association of selected sociodemographic and clinical variables with stress, quality of life, and perceived healthcare trajectory.

Methods

Design and setting

A quantitative descriptive cross-sectional design was adopted. The study was conducted in selected hospitals with pediatric inpatient services in the Sangli–Miraj–Kupwad Municipal Corporation area of Sangli District, Maharashtra.

Participants and sampling

The final sample comprised 350 mothers of hospitalized children. Purposive sampling was used. Mothers were eligible if they were the biological mother or primary female caregiver of a child aged one month to 12 years, the child had been admitted for more than four days, the mother was present during data collection, could understand Marathi, Hindi, Kannada, or English, and provided written informed consent. Mothers who were seriously ill were excluded. The thesis also lists severe cognitive impairment in the child as an exclusion criterion; this criterion should be confirmed and reported consistently in the final approved protocol.

The thesis reports a Cochran sample-size calculation of 384 participants using a 95% confidence level, an assumed proportion of 0.50, and a 5% margin of error. Because 350 eligible mothers completed the study during the data-collection period, the analysis was performed on 350 participants. The manuscript should state whether a formal power analysis was conducted for the final sample and should avoid claiming adequate power unless this has been verified.

Measures

Data were collected using four components:

- A structured sociodemographic and clinical questionnaire covering maternal and paternal education and occupation, family income, family type, residence, child age and gender, diagnosis or illness severity, admission area, duration of hospitalization, and previous hospitalization.
- The 18-item Parental Stress Scale by Berry and Jones, scored on a five-point Likert scale. Higher scores indicate greater perceived parental stress.
- The WHOQOL-BREF, comprising physical-health, psychological, social-relationships, and environmental domains, together with overall quality-of-life and satisfaction-with-health items. Scores were transformed according to the instrument's scoring procedure, with higher scores indicating better quality of life.
- A researcher-developed Parent/Caretaker Perception of the Pediatric Healthcare Journey Questionnaire addressing communication, information, nursing and medical care, family involvement, emotional support, decision-making, continuity of care, and satisfaction. Higher scores indicate more positive perceptions.

The thesis reports expert review for content validity and Cronbach's alpha coefficients of 0.83 for the Parental Stress Scale, acceptable reliability for the WHOQOL-BREF, and 0.78 for the researcher-developed healthcare-journey questionnaire. The final submission should include the names and affiliations of validity experts, the language-adaptation process, the exact scoring ranges and category cut-offs, and the reliability sample and confidence intervals if available.

Data collection and ethics

Administrative permission and institutional ethics approval were obtained according to the thesis. Written informed consent was obtained from all participants. Participation was voluntary, confidentiality and anonymity were

maintained, and participants could withdraw without consequences. Interviews were conducted after medical rounds and required approximately 30 minutes.

Statistical analysis

Data were analyzed using SPSS version 20.0. Frequencies and percentages summarized categorical variables; means and standard deviations summarized continuous or scale variables. Normality was assessed using Kolmogorov–Smirnov and Shapiro–Wilk tests. Because the study variables were not normally distributed, Spearman’s rank correlation coefficient was used to examine relationships. Independent-samples t tests were used for two-group comparisons and one-way ANOVA for comparisons involving more than two groups; Tukey HSD post hoc analysis was used after significant ANOVA results. The significance threshold was $p < 0.05$.

Results

Section –I Participant characteristics

Among the 350 hospitalized children, 56.86% were female and 43.14% were male. Children below one year and those aged 4–6 years each represented 26.0% of the sample; 12.0% were aged 1–3 years, 15.71% were aged 7–9 years, and 20.29% were aged 10–12 years. Most participants were Hindu (80.0%). The child’s illness was categorized as moderate in 30.0%, life-threatening in 29.71%, mild in 20.0%, and severe in 20.29%. Admissions occurred in the NICU (34.0%), pediatric ward (29.71%), isolation ward (20.29%), and ICU (16.0%). More than 12 days of hospitalization was reported for 38.29% of children, and 58.57% had previous hospitalization experience. A joint family structure was reported by 56.57% of mothers.

Section –II Stress, quality of life, and healthcare trajectory

Table 1 Descriptive Statistics of Stress Level Among Mothers of Hospitalized Children
n=350

Variable	Mean	SD	Min.	Max.
Stress level among mothers of hospitalized children	4.36	0.22	3.72	4.72

Table No 1 shows, The mean Parental Stress Scale score was 4.36 (SD 0.22; range 3.72–4.72) on a five-point scale, indicating high perceived stress. Mothers most frequently endorsed statements reflecting inadequate time and energy, worry about doing enough, financial burden, difficulty balancing responsibilities, and feeling overwhelmed.

Table 2 Descriptive Statistics of Quality of Life Among Mothers of Hospitalized Children
n=350

Quality of Life Domains	Mean	SD	Min.	Max.
Physical Health	57.14	10.64	21.43	89.29
Psychological Health	61.95	10.84	29.17	95.83
Social Relationships	69.33	16.90	16.67	100.00
Environment	68.66	9.72	37.50	96.88
Overall Quality of Life (Item-1)	67.36	28.71	.00	100.00
Overall Health Satisfaction (Item-2)	68.14	28.94	.00	100.00

Table No 2 shows Quality-of-life scores were highest in the social-relationships domain (mean 69.33, SD 16.90) and environmental domain (mean 68.66, SD 9.72). The physical-health domain had the lowest domain score (mean 57.14, SD 10.64), followed by the psychological domain (mean 61.95, SD 10.84). The mean overall quality-of-life score was 67.36 (SD 28.71), and the mean satisfaction-with-health score was 68.14 (SD 28.94).

Table 3 Descriptive Statistics of Overall Perceived Healthcare Trajectories Among Mothers of Hospitalized Children
n = 350

Perceived Healthcare Trajectories (Overall Score)	Mean	SD	Min.	Max.
HCT Total Score	22.90	2.504	17	29
HCT Mean	3.82	0.417	2.83	4.83

Table No 3 shows The mean healthcare-trajectory score was 3.82 (SD 0.42; range 2.83–4.83) on a five-point scale. This indicates that mothers generally perceived communication, coordination, treatment outcomes, information, participation in decisions, and healthcare-team support positively.

Section –III Relationships among study variables

Normality testing indicated statistically significant departures from normality for the principal study variables; therefore, Spearman’s correlation was used. Parental stress showed no statistically significant correlation with healthcare trajectory ($\rho = 0.063$, $p = 0.236$), physical health ($\rho = 0.009$, $p = 0.871$), psychological health ($\rho = 0.059$, $p = 0.272$), social relationships ($\rho = 0.013$, $p = 0.814$), environmental health ($\rho = 0.060$, $p = 0.260$), overall quality of life ($\rho = 0.017$, $p = 0.754$), or satisfaction with health ($\rho = -0.026$, $p = 0.622$).

Healthcare trajectory was also not significantly correlated with the quality-of-life domains or the overall quality-of-life and health-satisfaction items. The only statistically significant association among the reported quality-of-life measures was a weak negative correlation between physical health and satisfaction with health ($\rho = -0.116$, $p = 0.030$). Given the small effect size and the number of correlations examined, this isolated finding should be interpreted cautiously.

Section –IV Sociodemographic and clinical associations

Parental stress differed significantly according to the age of the hospitalized child, $F = 6.493$, $p = 0.001$. Tukey HSD analysis showed higher stress among mothers of children below one year than among mothers of children aged 4–6 years (mean difference 0.109, $p = 0.005$), among mothers of children aged 1–3 years than those aged 4–6 years (mean difference 0.175, $p = 0.001$), and among mothers of children aged 7–9 years than those aged 4–6 years (mean difference 0.126, $p = 0.004$). Child age was not significantly associated with healthcare trajectory or quality-of-life domains.

Child gender was not significantly associated with parental stress, healthcare trajectory, or quality of life. Previous hospitalization experience was likewise not significantly associated with parental stress, healthcare trajectory, or quality-of-life measures. The full article should report the complete inferential results for all remaining demographic variables, including group sizes, test statistics, degrees of freedom, effect sizes, confidence intervals, and adjusted or post hoc comparisons where applicable.

Discussion

This study found high perceived stress among mothers of hospitalized children, with a mean score close to the upper end of the five-point response scale. The pattern of responses suggests that stress was driven not only by the child’s illness but also by competing responsibilities, time and energy demands, financial concerns, and uncertainty about whether the mother was providing adequate care.

The quality-of-life findings were mixed. Social relationships and environmental well-being had relatively higher scores, whereas physical and psychological health had lower scores. This pattern is consistent with the possibility that mothers retained social and environmental resources while experiencing fatigue, disrupted routines, emotional strain, and physical demands during hospitalization. However, the cross-sectional design does not permit causal conclusions.

Mothers reported generally positive healthcare trajectories despite high stress. This apparent coexistence suggests that satisfaction with healthcare services and caregiver stress may represent distinct constructs. A mother may value communication and nursing support while still experiencing considerable fear, exhaustion, financial pressure, or

concern about the child's prognosis. Hospital teams should therefore avoid using positive satisfaction ratings as a substitute for direct assessment of caregiver distress.

Stress differed by the child's age, with particularly higher levels among mothers of children below one year and those aged 1–3 years compared with mothers of children aged 4–6 years. Younger children may require more intensive supervision and may have fewer communication and self-care abilities, increasing maternal dependence and uncertainty. This interpretation is plausible but should be tested in longitudinal studies and should not be presented as a causal explanation based on the current data alone.

The study did not identify statistically significant relationships between stress, quality of life, and perceived healthcare trajectory. Possible explanations include restricted variability in healthcare-trajectory scores, the cross-sectional design, unmeasured confounding, and differences in how participants interpreted the instruments. Future studies should examine whether stress changes over time and whether structured information, family-centred care, social support, or financial assistance modifies outcomes.

Strengths and limitations

Strengths

- The study examines three complementary dimensions of the maternal hospitalization experience.
- It includes a relatively large sample of 350 mothers from pediatric units in a regional Indian setting.
- It uses standardized measures for parental stress and quality of life and reports reliability testing for the researcher-developed questionnaire.
- It applies non-parametric correlation after assessing distributional assumptions.

Limitations

- The purposive, hospital-based sample limits generalizability beyond the participating hospitals and region.
- The cross-sectional design prevents determination of temporal or causal relationships.
- All measures were self-reported and may be influenced by recall, social-desirability, or response bias.
- The healthcare-trajectory questionnaire was researcher-developed; further external validation is needed.
- The manuscript must reconcile inconsistencies in the thesis regarding child-age eligibility, minimum duration of admission, included units, and reported descriptive percentages.
- The analysis involves multiple correlations and group comparisons. The possibility of type I error should be acknowledged, and effect sizes and confidence intervals should be reported.
- The reported sample-size justification should be clarified because the calculated target was 384 while the final sample was 350.

Implications for practice

Pediatric units should integrate brief maternal-stress screening into admission and discharge workflows, especially for mothers of infants and toddlers. Nurses and physicians should provide structured, repeated explanations about diagnosis, procedures, expected course, warning signs, and the mother's role in care. Written or multilingual information may improve comprehension and reduce uncertainty.

Family-centered care should include opportunities for mothers to ask questions, participate in appropriate care activities, and receive feedback about the child's progress. Hospitals should consider referral pathways for psychological support, social-work assistance, accommodation, financial counselling, and post-discharge follow-up when indicated.

Conclusion

Mothers of hospitalized children in selected hospitals of Sangli District experienced high perceived stress while reporting generally positive perceptions of the pediatric healthcare trajectory and moderate-to-good quality-of-life scores. Maternal stress differed according to the child's age, but most observed relationships between stress, quality of life, and healthcare trajectory were weak and not statistically significant. Pediatric care should address the mother's emotional, informational, social, and practical needs alongside the child's clinical treatment.

Acknowledgment: Authors remain thankful to all the participants and hospital authorities. We acknowledge the adoption of artificial intelligence in structuring and strengthening the design of this article.

Conflict of interest: Authors declare no conflict of interest

Funding: Bharati Vidyapeeth (Deemed to be University) Pune.

References:

1. Erdem Atak İ, Beyazıt U, Taşçıoğlu G, Bütün Ayhan A. A Study on the Psychological Status of Hospitalized Children and Their Perceptions of Hospital and Sickness Through Drawings. *Turkish Journal of Pediatric Disease*. 2019;13(4):283-291. doi:10.12956/tchd.518412
2. Rashikj Canevska O. The Impact of Hospitalization on Psychophysical Development and Everyday Activities in Children. *Годишен зборник на Филозофскиот факултет/The Annual of the Faculty of Philosophy in Skopje*. 2018;71:465-470. doi:10.37510/godzbo1871465rc
3. Bsiri-Moghaddam K, Basiri-Moghaddam M, Sadeghmoghaddam L, Ahmadi F. The concept of hospitalization of children from the view point of parents and children. *Iran J Pediatr*. 2011;21(2):201-208.
4. Hasan Tehrani T, Haghighi M, Bazmamoun H. Effects of stress on mothers of hospitalized children in a hospital in iran. *Iran J Child Neurol*. 2012;6(4):39-45.
5. Praveen S, Sharma S, Peters NJ. A Descriptive Study to Assess Level of Stress, Anxiety, and Pain Among Hospitalized Children Admitted in the Pediatric Surgery Unit of APC, PGIMER, Chandigarh 2020–2022. *Nursing & Midwifery Research Journal*. 2023;19(2):65-71. doi:10.1177/0974150X231164227