

Original Article

Sociodemographic and health aspects of mothers in a paediatric ward

K.S.H de Silva¹, D.S.G Mettananda², Thamara Athauda³

Sri Lanka Journal of Child Health, 2005; **34**: 114-9

(Key words: Study of mothers, paediatric ward, physical health, psychological profile, reaction to stress)

Abstract

Objectives To study a group of mothers in a paediatric ward and describe sociodemographic profile, presence of existing disease, pulse and blood pressure (BP) profiles during hospital stay, psychological profile prior to admission and changes demonstrated during period of stay.

Method A descriptive, cross-sectional study was done in a ward at Lady Ridgeway Hospital for 6 weeks from May 2004. Five hundred mothers staying with their sick children were interviewed using a questionnaire dealing with various aspects. Mothers of children with chronic diseases needing regular admissions and those transferred to and from ward were excluded. Pulse rate and BP of mothers were recorded on admission, within 24 hours and on discharge. Psychological profile was assessed as psychological score, describing behaviour prior to admission, and acute stress score, analysing changes demonstrated during present admission. This was done using a scoring system on a standard questionnaire with 23 items and a modified one with 5 items where higher scores identified mothers reacting more to stressful situations.

Results 476 (95.2%) questionnaires were analysed. Mean age of mothers was 32.1 years with a range of 17 to 52 years. 442 (92.9%) mothers had received secondary or higher education but 8 had never been to school. Monthly income was <Rs.10,000 in 296 (62.2%) families and 385 (80.9%) children were from middle and lower social classes. 117 (24.6%) mothers had preschool children at home when they were in hospital, majority of whom were looked after by grandparents. 65 (13.7%) mothers had long standing

illnesses needing daily medication but only 15 (23.1%) took the drugs while in hospital. 54 (11.3%) mothers did not have anyone to confide in when they had a problem. Mean pulse rate and systolic and diastolic BP on discharge were significantly lower than the mean values on admission. Highest mean psychological score of 26.4 was found in the 21-30 year age group. Significantly higher acute stress scores were found in mothers below 30 years and in those who did not have anyone to confide in.

Conclusions This study demonstrates that mothers who play a vital role in management of their sick children are under immense stress and have their own health issues and family commitments that are mostly not appreciated or addressed. A social worker assigned to paediatric wards could provide invaluable help to mothers to cope with the stressful situation of hospitalisation of a sick child.

Introduction

Mothers are an integral part of paediatric practice. Information from them and their continued presence and support is vital for care of the sick child. Although we depend on them we know hardly anything about them. Hence this study was done to gather information about mothers in a paediatric ward.

Method

Study was done at the University Unit of Lady Ridgeway Hospital (LRH) for 6 weeks from May 2004 following approval from the Ethics Committee of University of Colombo. Informed verbal consent was obtained from mothers and 500 consecutive admissions were assessed using an interviewer administered questionnaire. Children with chronic illnesses and transfers to and from ward were excluded. Pulse rate and blood pressure (BP) of mothers were recorded on admission, within 24 hours and on discharge and presence of pallor was documented.

¹Senior Lecturer, ²Demonstrator, Department of Paediatrics, Faculty of Medicine, Colombo. ³Senior Lecturer, Department of Community Medicine, Faculty of Medicine, Colombo.

(Received on 4 January 2005)

The pre-tested questionnaire dealt with information regarding patient's sociodemographic data, physical health and psychological profile of the mothers and details of preschool children at home. Two aspects were considered for psychological profile, namely their behaviour prior to present admission and changes demonstrated during this admission.

We used 'Mothers' mental health questionnaire', prepared by Rutter in his Isle of White studies and modified for local use by A. Nikapotha¹, to study their psychosocial profile. A scoring system was used in the 23 item questionnaire. Each positive answer was given 2 marks and each negative answer 1 mark with a maximum of 46 for questionnaire. Disturbances in sleep, changes in appetite and bowel habits, feelings of sadness and fear, bodily aches and pains, were some of the questions asked. Reaction to acute stress was assessed using 5 items from this questionnaire, each positive answer getting 1 mark and each negative answer 0, with a maximum score of 5. The questions were on disturbances in sleep, appetite and bowel habits, palpitations and feelings of sadness. A higher score in the 23 item questionnaire (overall psychological score) identified mothers who were prone to react more to stressful situations and the 5 specific items in questionnaire (acute stress score) identified those who reacted more to the acute stressful situation.

Results

Four hundred and seventy six (95.2%) questionnaires were analysed. There were patients from all parts of the country but 244 (51.3%) patients were from Colombo and 162 (34%) came from Gampaha. Their ages ranged from 2 days to 12 years with a mean age of 2 years and 11 months and their duration of hospital stay was from 1 to 20 days with a mean of 2.88 days. Commonest cause of admission was viral fever, which affected 135 (28.4%) children. Acute gastro-enteritis/dysentery was the reason for admission in 110 (23.1%) patients and 20 children (4.2%) had dengue fever.

Sociodemographic description of the mothers is given in Table 1. Mean age of mothers was 32.1 years with a range of 17 to 52 years. Majority of mothers (92.9%) had secondary education or more but 8 had never been to school. Eighty nine (18.7%) were gainfully employed. Monthly income was less than Rs. 10, 000 in 296 (62.2%) families and 385 (80.9%) children were from middle and lower social classes².

Table 1

Sociodemographic description of the mothers

Sociodemographic feature	Number (%)
---------------------------------	-------------------

Age (years)

≤ 20	7 (1.5)
21 - 30	198 (41.6)
31 - 40	216 (45.4)
≥ 41	55 (11.6)

Level of education

No education	8 (1.7)
Grade 1 - 5	26 (5.5)
Grade 6 - 10	279 (58.6)
Grade 11 - 12	147 (30.9)
Higher education	16 (3.4)

*Social class**

I	31 (6.5)
II	60 (12.6)
III	128 (26.9)
IV	189 (39.7)
V	68 (14.3)

Monthly family income

< Rs 5000	75 (15.8)
Rs 5000 - 10 000	221 (46.4)
> Rs 10 000 - 20 000	121 (25.4)
> Rs 20 000	59 (12.4)

* According to fathers' occupation [2]

Admission of a child to hospital may seem a trivial occurrence to hospital staff caring for the child. But it is an event that causes immense stress to family members especially mother. We found that 117 (24.6%) mothers in our study had left behind preschool children at home. Seventy (59.8%) were looked after by grandparents and 25 (5.3%) by fathers while their mothers were in hospital. Of the mothers, 446 (93.7%) had no one who could relieve them even for a few hours and 9 (1.9%) had no visitors during hospital stay.

In a busy paediatric ward attention is focussed on the sick child and caregivers tend to forget that some mothers may have their own health problems. We found that 65 (13.7%) mothers had long standing illnesses such as hypertension, type II diabetes mellitus, bronchial asthma and epilepsy. They needed

daily medication but only 15 (23.1%) mothers took the drugs while in hospital. Pallor was detected in 66 (13.9%) mothers. We also found that 264 (55.5%) mothers confided in their husbands when they had a problem and varying numbers in their parents, sisters and friends. But it was interesting to note that 54 (11.3%) did not confide in anyone.

Mean values for pulse rate and BP (systolic and diastolic) on admission, within 24 hours and on discharge were available in 206 mothers and are summarised in Table 2a. Mean values on discharge of all 3 parameters were significantly lower than mean values recorded on admission (Table 2b).

Table 2a
Pulse rates and BP profiles of the mothers

Timing	PR/min	SBP*	DBP**
	mean (SD)	mean (SD)	mean (SD)
On admission n = 206	82.3 (8.8)	113.6 (8.9)	71.1 (8.2)
Within 24 hrs n = 206	80.3 (10.1)	107.9 (10.9)	67.4 (9.4)
On discharge n = 206	78.1 (8.1)	108.5 (9.4)	68.3 (8.2)

* Systolic blood pressure (mmHg)

** Diastolic blood pressure (mmHg)

Table 2b
Comparison of the mean pulse rate and BP values of the mothers on admission and on discharge

	On admission	On discharge	Statistical
	mean (SD)	mean (SD)	significance
PR n = 206	82.3 (8.8)	78.05 (8.12)	p < 0.0001
SBP n = 206	113.6 (8.9)	108.52 (9.35)	p < 0.0001
DBP n = 206	71.1 (8.2)	68.25 (8.24)	p < 0.0005

Analysis of psychological profile is shown in Table 3. Highest mean psychological score of 26.4 was found in the 21–30 year age group. Acute stress scores showed a progressive decline with advancing age with the highest score of 3 seen in mothers <20 years.

Table 3
Psychological profile of mothers in the different age groups

Age (years)	Psychological score*	Acute stress score**
	mean (SD)	mean (SD)
< 20 n=7	25.9 (3.2)	3.0 (0.8)
21-30 n=198	26.4 (3.4)	2.5 (1.1)
31-40 n=216	26.1 (3.0)	2.0 (1.3)
> 41 n=55	26.3 (3.1)	1.7 (1.3)

* Highest score possible = 46

** Highest score possible = 5

For comparison of psychological profiles mothers were further divided into two groups – young mothers less than 30yrs of age and above. Psychological profiles were also compared in mothers who had a person to confide in and those who did not. This data is summarised in Tables 4a and 4b. Mothers below 30yrs had significantly higher mean acute stress scores than the others. Those who did not confide in anyone had significantly higher psychological scores as well as acute stress scores.

Table 4a
Psychological profile in the two groups of mothers

	≤ 30yrs	> 31yrs	Statistical
	n=205	n=271	significance
Psychological score mean (SD)	26.4 (3.3)	26.1 (3.0)	p > 0.05
Acute stress score mean (SD)	2.5 (1.1)	2.0 (1.3)	p < 0.0001

Table 4b
Psychological profile in relation to confiding in others

	Confide +	Confide -	Statistical
	n=422	n=54	significance
Psychological score mean (SD)	25.8 (2.8)	29.4 (4.0)	p < 0.0001
Acute stress score mean (SD)	2.1(1.3)	2.6 (1.3)	p < 0.0001

Discussion

The bond that exists between a mother and her child becomes more pronounced when the child falls sick. Studies have been done on various aspects of illnesses of a child but very few have targeted the mother. One such study has described the coping strategies among parents in an Intensive Care Unit (ICU) setting³ and another, the impact of environmental stressors on parents of children in ICUs⁴. A previous study done in the same Unit at LRH demonstrated that in spite of the meagre facilities available for mothers^{5,6} they were satisfied with the overall care of the sick child⁶.

The timing of this study was at the start of the dengue epidemic. This must undoubtedly have contributed to enhance the stress brought on by the child's illness. This may also have been the reason for some mothers to forget to take their own medications.

Parameters of physical reaction to stress that we studied in mothers were pulse rate and BP. These showed a significant reduction on discharge from hospital demonstrating how stressful the hospital admission was to them and confirming the need for some form of support while in hospital. We also found that young mothers found it harder to cope and reacted more to acute stress. A person who confides in others is less likely to react adversely to stressful situations^{7,8}. We demonstrated that mothers who did not have good confiding relationships reacted more to the acute stressful situation of child being ill.

When we concentrate on the sick child, we often forget that mothers are under immense stress and that they have their own health issues that are mostly not appreciated or addressed. We believe that a trained social worker assigned to paediatric wards would be able to spend more time with mothers, be their confidante and help to make the stressful situation more manageable. In the absence of social workers, this responsibility would lie with the medical and nursing staff. However, time available for such a task is limited. At least showing empathy towards mothers trying to answer their questions during some time of the day could be tried out by all of us. Having a less stressful mother would indirectly influence the well being of the sick child to speed up the recovery process.

References

- 1 Rutter M, Tizard J, Yule M, Graham PJ, Whitmore K. Research Report: Isle of White studies 1964-1974. *Psychological Medicine* 1976; **6**:313-32.
- 2 Abramson JH. Survey Methods in Community Medicine. 4th ed. London: Churchill Livingstone, 1974; 101-7.
- 3 Carnevale FA. A description of stressors and coping strategies among parents of critically ill children – a preliminary study. *Intensive Care Nursing* 1990; **6**(1):4-11.
- 4 Carter MC, Miles MS. The Parental Stressor Scale: Pediatric Intensive Care Unit. *Maternal-Child Nursing Journal* 1989; **18**(3):187-98.
- 5 de Silva S, Dharmage SC. Plight of mothers in a paediatric ward. Proceedings of the 30th Annual Scientific Congress of the Sri Lanka Paediatric Association, 1995.
- 6 de Silva KSH, Dharmage SC. Assessment of client satisfaction in a paediatric ward. *Ceylon Medical Journal* 1996; **41**(4):148-50.
- 7 Mirza I, Jenkins R. Risk factors, prevalence and treatment of anxiety and depressive disorders in Pakistan: systematic review. *British Medical Journal* 2004; **328**:794.
- 8 Stress in the workplace. Publication by BUPA's Health Information Team, 2004.