

Prevalence of depression in mothers of children suffering from psychiatric and physical disorders

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Abstract

Background Adverse impact of child mental disorders on the mental health of mothers is reported from other parts of the world but data is not from South Asia.

Objectives To study the prevalence of depression among mothers seeking help for mental disorders in their children and compare it with that of mothers whose children are receiving treatment for physical disorders.

Method Depression in mothers was assessed using self-rating and observer-rating standardized scales. The opinions of mothers regarding sensitivity to child and sense of behaviour control were also assessed.

Results Prevalence in both groups of mothers was twice that of adult women in the community with regard to moderate and severe depression. Proportionately more mothers with mentally disordered children felt less sensitive towards the child, less in control of behaviour, and less supported by others when compared to those with physically disordered children.

Conclusions Mothers of mentally disordered children should be screened for depression, stress and poor coping.

Introduction

Parents of children with behavioural disorders, emotional problems, learning disabilities and

developmental disorders are vulnerable to develop mental health problems themselves due to the high caretaking demand and stress imposed on them. The most widely studied behaviour disorder in children, with a substantial impact on parent mental health, is attention deficit hyperactivity disorder (ADHD)^{1,2}. The mother, rather than the father, has been the focus of attention in many studies, perhaps due to the greater role she plays in child rearing and higher level of contact with children. The recognized impact include feeling stigmatized and socially isolated^{3,4}. Certain personal characteristics in mothers have been identified as determinants of the psychological impact they experience. Those less skilled in controlling their children's behaviour, having less knowledge about the illness⁵, interpret the behaviour as deliberate non-compliance and are more likely to be stressed and depressed⁶. Illness characteristics in the child, add towards maternal stress and depression^{7,8}.

The impact of physical illness in children on the mental health of their mothers also has been studied, mainly in relation to life threatening and disabling conditions⁹. Anxious personality traits in mothers are found to make them most vulnerable in this regard, because their psychological state undermines the coping ability¹⁰. Excess of risk factors for depression have been identified in mothers of children with birth defects. These risk factors include feelings of guilt, pathological attachment to the child, presence of chronic tension, social isolation, marital problems and conflict with medical staff¹¹. Co-existing behaviour problems predicts higher levels of stress in the mothers of physically ill children¹². In addition, mental health is adversely affected in mothers of children with chronic illness especially when the time taken for diagnosis is prolonged and the quality relationship with medical staff is poor¹³.

The above mentioned research data come from industrialized countries where state sponsored social care systems and other support services are available

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for parents of children with behaviour problems and disabilities. Such social care is not available to mothers in Sri Lanka, although the illness in the child that is studied and the predisposing circumstances and risks are no different in the two settings. There is no data available from South Asia on mental health problems in mothers of children with illness or disability, though relevant to clinical care of the children. As the focus of clinical care is singularly on the ill child, identifying mothers with depression is often missed, except in extreme situations. This study is aimed at estimating the prevalence of depression in mothers and their attitude towards the child's illness.

Objectives

- To estimate the prevalence of depression in mothers of children seen in a specialist child mental health service.
- To study the relationship between the illness characteristics in the child with a mental disorder and depression in the mother.
- To study the quality of the emotional response and the relationship the mother has towards the child with a mental disorder.
- To compare the above findings on similar variables with that of mothers of children with physical disorders.

Method

Study sample comprised mothers of all children, referred to a specialist mental health outpatient service in a tertiary care paediatric hospital, during a period of 3 months in 2005, and who received a diagnosis of a mental disorder. The assessment was carried out on the first visit for consultation.

Comparative sample comprised mothers of children who were receiving inpatient care in the same tertiary care paediatric hospital for a physical disorder. These mothers were selected in two stages. In the first stage, six medical and surgical units in the hospital were randomly selected. In the second stage, mothers of children in each medical or surgical unit were randomly allocated to the study. Children suffering from severe physical disabilities, burns and trauma were excluded from the study as these children were likely to have clinically significant psychological disturbances and would create difficulty in comparing the two samples.

Main measures

1. Presence of depression in both samples of mothers was assessed using the Beck Depression Inventory and the Hamilton Depression Scale.
 - *Beck Depression Inventory* is a self rated standardized questionnaire in English, designed to identify depression. This was translated into Sinhala and was found to have a satisfactory reliability on testing. The questionnaire was completed by all mothers included in the study.
 - *Hamilton Depression Scale* is an observer rated standardized scale in English. The scale was administered to the mother by the authors of this study. The authors agreed among themselves on uniformity in posing the questions to non-English speaking mothers. The individual items on the scale were checked for cultural validity and were found to be satisfactory.
2. The following data was gathered on all the mothers:
 - Socio-demography
 - Presence of a past history and/or a family history of depression
 - Presence of a physical illness
 - The opinion of the mother regarding the level of behaviour control she had on the child, recoded on a three point scale.
 - The opinion of the mother regarding the level of sensitivity she felt towards the child's health problem, recorded on a three point scale.
 - Opinion of mother regarding the availability of social support for management of the child, recorded on a three point scale.
3. The following data was gathered from mother regarding the child
 - Age of the child.
 - The nature and duration of the main health problem in the child.
 - Profile of the symptoms indicating a mental health problem in the child and classified as conduct, emotional or developmental.

- The opinion of the mother regarding the impact of the main health problem on the general functioning of the child, recorded on a three point scale.

In assessment of general functioning in the child, the areas that were considered were, play, school attendance, relationship with peers, relationship with family members and quality of sleep.

The interviews were carried out by the authors. Items 2 and 3 above were tested and found to have satisfactory inter-rater reliability. Informed voluntary consent was obtained from mothers to administer the assessment tools and gather data. Ethical clearance was obtained for the study. Data analysis was done using the software SPSS version 15.

Results

Table 1
Comparison of the characteristics of mothers of children with mental health problems and physical problems regarding demography and history of illness

Variable regarding mother	Child has a mental disorder N= 70	Child has a physical disorder N= 64
Mean age	37.7 years (27-58)	31.5 years (18-49)
Employment status		
- employed	16 (22.8%)	12 (18.8%)
- housewife	54 (77.2%)	52 (81.1%)
Highest educational level		
- primary	09 (12.9%)	08 (12.5%)
- secondary	59 (84.3%)	54 (84.4%)
- tertiary and above	02 (02.9%)	01 (01.6%)
Past H/O treatment for depression		
- yes	03 (04.3%)	0 (0%)
- no	67 (95.7%)	64 (100%)
Family H/O of depression		
- yes	05 (07.1%)	04 (06.3%)
- no	65 (92.9%)	60 (93.8%)
Presence of physical illness		
- yes	22 (31.4%)	12 (18.8%)
- no	48 (68.6%)	52 (81.3%)

Table 2
Comparison of the characteristics of mothers of children with mental health problems and physical problems regarding behaviour control, sensitivity and availability of social support

Variable regarding mother's opinion	Child has a mental disorder N=70	Child has a physical disorder N=64
Behaviour control of child		
- effective	13 (18.6%)	55 (86.0%)
- somewhat effective	29 (41.4%)	08 (12.5%)
- ineffective	28 (40.0%)	01 (01.6%)
Sensitivity towards child		
- sensitive	50 (71.4%)	59 (92.2%)
- moderately sensitive	16 (22.9%)	05 (07.8%)
- insensitive	04 (05.7%)	0 (0%)
Availability of support from others		
- good	46 (65.7%)	49 (76.6%)
- moderate	15 (21.4%)	08 (12.5%)
- poor	09 (12.9%)	04 (06.3%)

Table 3
Comparison of illness characteristics of children with mental disorders and physical disorders
as reported by mothers

Variable regarding the child	Child has a mental disorder N=70	Child has a physical disorder N=64
Mean age	5.9 years	4.5 years
Presence of a mental health related symptoms	100%	13 (20.3%)
- conduct	07 (10%)	02 (3.1%)
- emotional	27 (38.6%)	06 (9.4%)
- developmental	09 (12.9%)	05 (7.8%)
- multiple	27 (38.6%)	0 (0%)
Presence of physical disorder		100%
- yes	17 (24.3%)	0 (0%)
- no	53 (75.7%)	
Mean duration of the problem	22.8 months	5 months
Impact of illness on functional level		23 (35.9%)
- none	04 (05.7%)	28 (43.8%)
- moderate	30 (42.9%)	13 (20.3%)
- severe	36 (51.4%)	

The children with mental disorders had a longer duration of illness than the physically ill children. In addition nearly ¼ had a physical illness, epilepsy being the commonest.

Table 4
Comparison of depression scores and intensity of depression in mothers of mentally
disordered and physically disordered children

Scores on Depression scales and intensity of depression	Prevalence in mothers of mentally disordered children N=70	Prevalence in mothers of physically disordered children N=64
<i>Hamilton scores</i>		
Mean score	8.07 (0 - 43)	6.92 (0 - 37)
0 to 10 – none / mild	54 (77.1%)	50 (78.1%)
11 to 20 – moderate	09 (12.9%)	10 (15.6%)
over 21 – severe	07 (10,0%)	04 (06.3%)
<i>Beck scores</i>		
Mean score	18.71 (13-41)	18.56 (13-37)
11 to 20 – none / mild	53 (75.7%)	50 (78.1%)
21 to 30 – moderate	13 (18.6%)	10 (15.6%)
over 30 – severe	04 (05.7%)	04 (06.3%)

The correlation between scores from Beck and Hamilton scales was $r=0.624$ ($p 0.000$). Linear regression analysis did not identify statistically significant correlation between the depression scores in mothers and specific variables that were studied in the mother or the child. Independent t Test showed that there was no significant difference between the depression scores in mothers of children with mental disorder and physical disorder ($p>0.05$).

Discussion

The known prevalence of current depression in adult women in primary health care setting is 10.4%¹⁴. In our study, this figure was more than double for mothers of both mentally and physically disordered children, being 22.9% and 21.9% respectively for moderate to severe depression. The prevalence of depression in mothers of mentally disordered children was only slightly higher than the comparison group. This difference is more evident on self assessment of depression, but was not statistically significant ($p>0.5$).

In contrast, there were a number of differences between the two groups of mothers, although they were similar with regard to demographic, social and illness data. Firstly, proportionately more mothers with mentally disordered children reported feeling moderately sensitive and insensitive towards their children's problems than mothers of physically ill children (22.9% and 7.8% versus 5.7% and 0% respectively). Secondly, a lower proportion of mothers with mentally disordered children felt they were effective enough in controlling their children's behaviour (18.6% versus 86%) and 40% versus 1.6% of these mothers reported that they felt totally ineffective in controlling their child's behaviour. Thirdly, more mothers of mental disordered children identified functional impairment in the child (51.4% versus 20.3%). Fourthly, reporting of physical illness was higher in mothers of mentally disordered children (31.4% versus 18.8%). Lastly, availability of social support was seen as low by more mothers of mentally disordered children (12.9% versus 6.3%). These differences in the two groups may indicate that mothers of mental disordered children may suffer from considerably more emotional stress and anxiety than their counterparts. A related finding in this study, that may add to the emotional burden in these parents, is that help was sought only after the behaviour problems had existed for a considerably longer period on average when compared to duration of physical illnesses (22.8 months versus 5 months).

Supportive evidence for depression in mother with mental and physical health problems is already mentioned in the introduction to this article. Our findings on opinion, attitudes and sensitivity of mothers also replicate other studies. For instance, a mother may respond with less sympathetic toward a child with a behaviour problem if this is misinterpreted as deliberate non-compliance by the child^{15,16,17}; a distressed mothers have altered perception of the child's behaviour, lower tolerance for child's misconduct and feel less sensitive towards their children¹⁸; behaviour problems that are severe are more likely to give the parents a sense of incompetence in managing their children¹⁹.

Limitations of the study

The random selection of the comparison group limited the scope of selecting a matched sample with the main study group though difference was found regarding the demographic variables. Also, no attempt was made to match the mental disordered and physically disordered children in terms of the severity and duration of the illness.

Clinical Relevance

This study highlights the importance of screening for the impact of child mental disorders on mothers and providing support to optimize coping.

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