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Assessment of Parental Distress and Psychiatric Morbidity Before Elective Surgery in a Lagos Teaching Hospital

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Background: Paediatric operation has been reported to be stressful not only to the child scheduled for operation but also to the parents and family members. In the absence of detailed information about the impending operation both mother and child may manifest preoperative distress and psychological morbidity. This study was aimed at assessing parental distress and psychiatric morbidity among parents of children scheduled for elective operation in a Lagos Teaching Hospital.
Method: The study took place at paediatric surgery unit of the Department of Surgery of the Lagos State University Teaching Hospital (LASUTH), Ikeja, Lagos, Nigeria. One hundred parents of children scheduled for elective surgery were asked to complete the 12th version of the General Health Questionnaire and the Hospital Anxiety and Depression Scale.
Results: Of the total participants, 47 (47%) scored higher than the cut off with the GHQ indicating that they suffered from psychological distress, while 51 (51%) had probable anxiety and 19 (19%) had depression.
Conclusion: The findings of this study showed a significant level of psychological distress and morbidity among mothers of children undergoing elective surgery. It is therefore suggested that psychosocial assessments of parents should be carried out before paediatric surgery to identify parents with high parental psychiatric morbidity that may need emotional support preoperatively and postoperatively. Parental psychopathology such as anxiety and depression should be a major concern of paediatric surgeons. Failure to attend to this, the paediatric surgeon may lose the essential therapeutic alliance with the parents during the care of their patients.

Introduction

Paediatric surgery has been reported to be stressful not only for the child scheduled for operation but also for the parents and family members[1]. This is because children who are to undergo surgery were observed to exhibit with various forms of psychological distress such as anxiety mood disturbances, nausea, fatigue, somatic complaints and change in behaviour before the scheduled surgery[2]. In a related manner, parents of children scheduled for surgery were also observed to demonstrate various forms of parental distress such as anxiety, panic, depression, obsessive-compulsive behaviour and somatic complaints[2.3]. Previous reports have shown that in the absence of psychological interventions for these observed psychological disorders in parents of children scheduled for surgery, the psychological morbidity were also found to persist for months or years after children's surgical intervention thereby prolonging the emotional suffering of these parents[3,4]. The literature also demonstrated that when parents' exhibit heightened parental preoperative distress, they are likely to transmit the anxieties to the children prepared for elective surgery[5-8]. In that wise, it was reported that about 54% of these children developed new maladaptive behaviours before and after operation[5-8]. Psychiatric disorders such as anxiety and depression were also found to be high in mothers of children scheduled for surgery[5,9,10,11]. High rates of psychological distress were also noticed in these parents[12-14].

From the foregoing, it is thus pertinent for researchers to further understand the clinical and psychosocial implications of parental psychopathology and proffer psychological interventions before the scheduled surgical operations of their children. Although surgical interventions are potentially curative, they are still dreaded by patients and parents because they have been found to be associated

with morbidity and mortality[2]. However, literature has shown that parental psychological distress varies from country to country and is said to be due to cultural differences[9,15]. Family dynamics was reported to be of increasing importance in paediatric psychology literature, it remained understudied in parents[1]. However, in the western countries, majority of studies on parental distress focussed on parental anxiety and their coping styles. Very few studies have been carried out on parental psychiatric morbidity, and its link with children's pre and postoperative psychopathology but little is known about this important topic in Sub-Saharan countries, in particular, Nigeria. Likewise, various written and electronic literature searches did not reveal any African or developing country's study on parental distress. This was what informed the design of this study.

This study was aimed at assessing the degree of parental distress and psychiatric morbidity before elective surgery in a Lagos teaching hospital and compare our findings with those of other countries and for the findings to also serve as data for comparison for other future African studies.

Subjects and Methods

The study took place at the paediatric surgery unit of the department of surgery of the Lagos State University Teaching Hospital (LASUTH), Ikeja, Lagos, Nigeria. Data were collected between June 2010 and May 2011. Eligible parents of children who were to undergo elective surgery who also understood English were invited to take part in this study. One hundred and twenty parents were approached, 100 (80%) agreed to participate in the study. Data were collected from parents of children scheduled for both day and inpatients elective surgery one or two hours before the surgery at the preoperative holding room. None of the parents had any preoperative preparatory programme. They were left alone to complete the psychometric instruments and those who needed further explanations or queries were attended to by one of the authors (ORI). Approval for the study was taken from the Ethics and Research Committee of the hospital and informed consent was also taken from every respondent who took part in this study.

A self-administered questionnaire was used to collect the sociodemographic data on age, sex, education, occupation and illness and expenditures of their children. The participants also completed the 12th version of the General Health Questionnaire (16) and the Hospital Anxiety and Depression Scale (HADS) (17). The GHQ 12 is a short version of the GHQ which was designed as a self-administered screening instrument aimed at distinguishing between psychological ill-health and well-being. It assesses the symptoms of anxiety, depression and social dysfunction. The cut off mark is 2. Scores above 2 indicated a positive case. The HADS is a self-report questionnaire designed to detect anxiety and depression in general medical outpatients. It has two sub-scales, seven for anxiety (HADS-A) and depression (HADS-D), each with seven questions. To avoid false positive cases in the context of somatic diseases, no somatic items or items regarding sleep are included.
The scores range from a minimum of zero to a maximum of three per question. The maximum score per sub-scale is 21. Scores between 0 and 7 are generally regarded as non-cases while those above 8 and 10 are regarded as "doubtful cases". Scores between 11 and 21 are regarded as "definite cases." For the purpose of this study, "cases" were considered as scores of 11 and above and non-cases, scores of 10 and below. These two psychometric instruments had been standardised and validated and used in both hospital and community studies in Nigeria[18,19].

Statistical analysis

The Statistical Package for Social Sciences (SPSS) version–16 was used to analyze the data collected data. Continuous variables were expressed as Means, Standard Deviation and Range while categorical variables as proportions. Comparisons of categorical variables were done using Chi square and the Means using the Student "t "test. The p-value less than 0.05 was considered to be statistically significant (confidence level = 95%).

Results

Of the total respondents 67 (67%) were females and 33(33%) males; the age range 31-40 years were the highest 63 (63%) followed by age ranges 21-30 years and 41-50 respectively.

Table 1. Sociodemographic Details of the Respondents

Variables	*Frequency*	*Percent*
Age group		
21-30	20	20
31-40	63	63
41-50	12	12
51-60	4	4
61-70	1	1
70-79	1	1
Sex		
Male	33	33
Female	67	67
Highest education attained		
None	13	13
Primary school	21	21
Secondary school	20	20
Tertiary	46	46
Marital status		
Single	18	18
Married	78	78
Widowed	4	4
Employment status		
Unemployed	37	37
Employed	61	61
Retired	2	2
Religion		
Christianity	78	78
Islam	22	22

Table 2. Scores of Respondents on the Psychometric Instruments

	Frequency	**Percent**
GHQ Scores		
GHQ <2	53	53
GHQ >3	47	47
HADS Scores		
HADS – Anxiety		
HADS Scores 0-7	49	49
HAD Scores > 8-11	26	26
HAD Scores > 11	25	25
HADS – Depression		
HADS Scores 0-7	61	61
HADS Scores 8-11	18	18
HAD Scores > 11	1	1

Table 3. Expenses and illness variables of the Sick Child

Variable	Frequency	Percent (%)
Estimate of total income per month		
< 15, 000	33	33
15, 000-30,000	32	32
40,000-70,000	17	17
70,000-100,000 `	6	6
>100,000	12	12
Estimate of total expenditure on your child's health		
<N5,000	38	38
N5,000-N9,999	31	31
N10,000-N19,000	22	22
N20,000-N29,000	17	17
N30,000-N39,000	10	10
Duration of child's treatment		
<12 months	67	67
1-2 years	13	13
2-3 years	7	7
3-4 years	7	7
4-5 years	3	3
>5 years	3	3
How many times has your child been admitted because of this illness?		
Once	56	56
1-2 times	32	32
3-4 times	6	6
>5 times	6	6

Close to half of the respondents 46 (46%) had tertiary education attained while20 (20%) had secondary education, 21 (21%) had primary school education while 13 (13%) were not formally trained. As regards marital status, 78 (78%) of them were married and 18 (18%) single. Sixty-one percent of the respondents were employed and 37 (37%) unemployed. A large majority 78 (78%) were Christians while only 22 (22%) were Muslims as reflected in Table 1.

With regards to illness and cost expenses of the sick child, about 33 (33%) earned less than N15,000 per month, 47 (47%) earn between N15,000 and N40,000 per month while only 12 (12%) earn more than N100,000 per month. Ten (10%) of the respondents claimed that they spend between N30,000 and N40,000 on their children's health monthly but 38 (38%) claimed they spend about N5,000 or less per month on their sick children. With regards to duration of their sick children's treatment more than half 67 (67%) of the children were less than one year sick, about 13 (13%) for two years while about 12 (12%) had been ill for more than three years.

When the respondents were asked about how many times their sick children had been admitted in the past, 56 (56%) claimed it was the first time while 32 (32%) of the children had been admitted more than once and 12 (12%) for more than twice as shown in table 2. Table 3 shows the results of the psychometric instruments that determined psychopathology of the respondents; 47 (47%) scored higher than the cut off with the GHQ indicating that they suffered from psychological distress, while 51 (51%) had probable anxiety and 19 (19%) had depression.

Discussion

This study was aimed at assessing parental psychological distress and psychiatric morbidity among parents of children scheduled for surgery. The findings of this study showed that 47% scored higher than the cut off with the GHQ indicating probable psychological distress among the respondents, while 51 (51%) of the respondents manifested anxiety and 19 (19%) suffered from depression. These findings are similar to the results from studies from other countries. For example high rates of psychological distress were that ranged from 20% to 60% were reported in previous similar studies[20-22]. This observed parental psychological distress was found to be unrelated to the child's disease, treatment or milieu. High rates of parental psychological distress were observed and recorded in periods preceding surgery; they however reduced gradually after discharge of their children. In case of parents without support, the distress levels remained high post-surgery.

Some workers have suggested that parental psychosocial assessment should be carried out before surgery to identify parents in need of emotional intervention and support pre and post-surgery[2,22]. As regards the rates of anxiety among the respondents, previous studies also showed high rates of parental anxieties among mothers of children scheduled for surgery[7,8,23]. The reported rates ranged from 20% to 43.9%. The reasons for these reported high rates include the diagnoses of severe ailments in their children, preparation for surgery, the need to continuously provide financial, physical and emotional support for sick children in addition to their daily stress. Again, the unconscious fear of losing the child prepared for surgery and being left in the dark as regards information about the surgery[22,24]. Thus, when a mother who is expected to take care of her sick child suffers from moderate or severe anxiety, the intending surgery can therefore become detrimental to both patient and mother. This is because the psychopathology can be transferred to the child and may have negative effect on the recovery of the patient and may also prolong hospital stay[22]. The implication of this is that some mothers may continue to experience symptoms of psychopathology months or years after the surgical operation of the sick child[24]. Heightened anxiety was also reported to be a significant predictor of post traumatic symptoms which could also extend for years after the surgery of their children[24,25].

High level of depression that was recorded among the respondents also corresponds to the reported levels from other countries. The reported rates of depression from previous studies among parents of children prepared for surgery showed a range from 8% to 20%[7,8,26]. These observed high rates were probably so because of the diagnoses of severe ailments that needed surgery and the fear of losing the child[6-8]. In the same vein, such mothers may need to travel long distances to get to the hospital where their children are being surgically managed and such management usually involved large amount of money which they paid out of pocket [22]. In developing countries, the implications and risk of surgical interventions are believed to be unpredictable. The fear of the loss of the sick child may also be heightened by the absence of adequate information about scheduled surgical procedure and when such information are offered they are often laced with medical jargons and terminologies found to likely increase parental distress[22]. In this light, parental desire for pre-operative information may go a long way to allay the fears and anxieties of such mothers[27,28]. Nonetheless, some studies also argued that when parents of children and patients were given detailed information about the scheduled elective surgery, there was no increase in preoperative patients or parental anxiety[27,28].

Another important negative implication of not giving adequate surgical information to mothers of children scheduled for surgery is in case of eventual loss of the child. In the case of adequate information about the outcome of surgeries, bereavement period will be minimized and atypical grief reactions prevented[22,27,28]. In this wise, parents with good family and financial support were observed to return to their normal psychosocial levels of functioning 18 months post operatively but those without any support may continue to experience psychopathological symptoms many years postoperatively[1,22]. As regards intervention for parents with higher rates of psychopathology, recent studies suggested that psychological anxiety-reduction interventions such as relaxation exercises, humour, systematic desensitization, use of imagery and positive cognitive appraisal during

preparatory programmes which include what to expect during and after surgery were reported to significantly reduce parental preoperative distress[29,30].

This study is not without its limitations. The small sample size and use of self-administered psychometric instruments may not make the findings to be of general application. However, it is hereby suggested that future Nigerian studies should concentrate more on interventions that will reduce parental preoperative psychopathology most especially as regards providing detailed surgical procedures, expected outcomes of operations. These proactive psychological interventions were found to bring about low levels of parental psychopathology thereby improving post-operative recovery period and reducing period of hospital stay. This type of pro-active interventions were documented to be necessary because of the recent increasing competition among health maintenance organizations and hospitals and increasing demands for informed consent and quality health care service delivery by parents. Nonetheless, as far as we are concerned, this study is likely to be the first study on parental psychological distress and morbidity from Nigeria thus, it has added to the body of knowledge and also would serve as baseline data for future Nigerian studies on parental psychological distress and morbidity.

Conclusion

This study was also able to demonstrate high rates of psychological and psychiatric morbidity among parents of children scheduled for elective surgery. It is therefore suggested that psychosocial assessments of parents may be necessary before paediatric surgery to identify parents with high parental psychiatric morbidity that may need emotional support preoperatively.

Parental psychopathology such as anxiety and depression should be a primary concern of paediatric surgeons rather than focus exclusively on their patients. Thus, when paediatric surgeons provide adequate information about intending surgery during preoperative visits, it may likely improve parental knowledge thereby further reducing parental psychological distress and may also foster quality parental care of their children.

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