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Psychological Distress among Caregivers of Children Admitted into the Children Emergency Room of a Nigerian Tertiary Hospital

Détresse Psychologique chez les Soignants D'enfants Admis dans la Salle D'urgence des Enfants d'un Hôpital Tertiaire Nigérian

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ABSTRACT

BACKGROUND: Many caregivers experience significant psychological burden which may impact on the management of a sick child.

OBJECTIVE: To determine the prevalence and associated factors of psychological distress among caregivers of children admitted at the Children Emergency Room.

METHODS: This was a descriptive cross-sectional study among caregivers of children who were hospitalized for at least 24 hours. The 28-item General Health Questionnaire (GHQ 28) was used to assess the psychological distress among the caregivers. GHQ scores were stated as means \pm standard deviation (SD). Chi-square or Fisher's exact test was used to test for association between sociodemographic variables and psychological distress. Mean GHQ scores in the various domains of psychological dysfunction were compared among groups using the independent sample *t*-test; at $p < 0.05$.

RESULTS: Of the 97 caregivers who participated in the study, 96 had their data analyzed. The caregivers were aged 19 to 63 (mean 34.25 (8.46)) years; 86 (89.7%) were females and 48 (50%) had tertiary education. The prevalence of psychological distress among the care givers was 69.8%. Caregivers had high levels of anxiety but low levels of depression. Those with lower educational attainment had higher scores on severe depression domain ($p = 0.001$). Unemployed caregivers had higher mean scores on the anxiety/insomnia ($p = 0.039$) and social dysfunction domains ($p = 0.031$). Those with large family sizes scored higher on the anxiety/insomnia domain ($p = 0.03$).

CONCLUSION: Psychological distress was high among caregivers of children admitted at the children emergency room. **WAJM 2022; 39(4): 381–387.**

Keywords: Caregiver, children, emergency, psychological distress.

RÉSUMÉ

CONTEXTE: De nombreux aidants éprouvent une expérience importante charge psychologique pouvant avoir une incidence sur la prise en charge d'un malade enfant.

OBJECTIF: Déterminer la prévalence et les facteurs associés de détresse psychologique chez les personnes qui s'occupent d'enfants admis à l'Salle d'urgence pour enfants.

MÉTHODES: Il s'agissait d'une étude transversale descriptive parmi les soignants d'enfants qui ont été hospitalisés pendant au moins 24 heures. Le Questionnaire général sur la santé (QGH) en 28 éléments a été utilisé pour évaluer la détresse psychologique chez les soignants. Les scores GHQ étaient indiqués comme moyen \pm écart-type (ET). Chi-carré ou Fisher's

le test exact a été utilisé pour tester l'association entre sociodémographiques variables et détresse psychologique. Scores GHQ moyens dans les domaines différentes de dysfonctionnement psychologique ont été comparés entre les groupes à l'aide du test *t* de l'échantillon indépendant; à $p < 0.05$.

RÉSULTATS: Sur les 97 aidants qui ont participé à l'étude, 96 leurs données ont été analysées. Les aidants étaient âgés de 19 à 63 ans (moyenne 34.25 (8.46)) ans; 86 (89.7 %) étaient des femmes et 48 (50 %) avaient l'enseignement supérieur. La prévalence de la détresse psychologique chez les les soignants étaient 69.8 %. Les aidants avaient des niveaux élevés d'anxiété, mais faibles niveaux de dépression. Ceux dont le niveau de scolarité est inférieur avaient des scores plus élevés dans le domaine de la dépression sévère ($p = 0.001$). Les aidants au chômage avaient des scores moyens plus élevés sur l'anxiété / insomnia ($p = 0.039$) et les domaines de dysfonctionnement social ($p = 0.031$). Ceux qui ont les grandes familles ont obtenu des scores plus élevés dans le domaine de l'anxiété / insomnia ($p = 0.03$).

CONCLUSION: La détresse psychologique était élevée chez les aidants naturels des enfants admis à la salle d'urgence des enfants. **WAJM 2022; 39(4): 381–387.**

Mots-clés: Soignant, enfants, urgence, détresse psychologique, Stitués dans la prise en charge des patients atteints de LA COVID-19.

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Abbreviations: GHQ, General Health Questionnaire; PSM, Psychological Stress Measure; SRQ, Self-Reporting Questionnaire; STAI, Spielberger State-Trait Anxiety Inventory; TBI, Traumatic Brain Injury.

INTRODUCTION

Parents and guardians play very important roles in the promotion of their children's health, especially when the children are very sick. As caregivers, they are the primary source of support to the sick children. Many caregivers experience significant burden, particularly with respect to their physical and psychological well-being, economic circumstances, and social and personal relationships.¹ The psychological state of such a parent during the time of the hospitalization of the child can impact directly or indirectly on the child's care and the overall effect of the disease,² especially in emergency settings.

Few studies have looked at the psychological health of caregivers of sick children. These studies have shown that caregivers of hospitalized children experience high levels of stress.¹⁻⁴ These studies were mainly done in developed countries and looked at caregivers to either children with a specific medical condition,¹ or children with chronic medical conditions,³ only a few of them were done in resource-poor countries.^{4,5} High stress level experienced by these caregivers borders on so many factors including fear of losing the child, providing support for the child, lack of social security and family support, length of stay in the hospital, and difficulty in catering for the other children during the period of admission.²⁻⁴

Little or no attention has been given to explore the in-depth caregivers' experiences of psychosocial distress in emergency paediatric care setting particularly in countries where health care resources are still rudimentary. The caregiver's experience in poorly developed emergency health care systems such as ours may be influenced by the aforementioned factors which may further be compounded by enormous out-of-pocket expenses, and unavailability of adequate health facilities to cater for the sick child under emergency conditions. Thus, identification of psychological stress and the related factors can help health workers and other stakeholders in devising mechanisms that will help parents and guardians cope better while caring for their children during emergency treatment. The current study

aimed at exploring the prevalence and associated factors of psychological distress among caregivers of children admitted at the children emergency room of a tertiary hospital.

METHODS

This was a descriptive cross-sectional study where caregivers (parents or guardians) of sick children admitted to the children emergency room were selected using the convenience sampling technique and those that met the eligible criteria were enrolled consecutively. A total of 158 child/caregiver pairs were admitted into the children emergency ward within the study period (October 2018 to March 2019).

Eligibility criteria were as follows: Caregiver being above 18 years of age; the father, mother or any adult guardian of the child who has been ill and nursed by the caregiver for at least 48 hours before presentation to our facility, and who has been hospitalized for at least 24 hours in the children emergency room.

Socio-demographic information sought were caregivers' age, sex, marital status, highest educational qualification, employment status, place of domicile, nature of residence, severity of child's illness, number of children in the family, their sex distribution, and birth order.

The following definitions and categorizations were used in the assessment of participants: a large family was defined as having more than four children in a household.⁶ This was based on the reports of a previous study in Ghana (a country in west African region very similar to Nigeria in geography and family life) where a 'large family' of more than 6 (parents with more than 4 children) were associated with some adverse implication such as poor health, low incomes and status, low levels of education, pressure on environmental resources due to overexploitation and poor childcare and nutrition while small family (parents with four children or less is believed to aid in adequately catering for the needs of its members and able to enjoy the necessities of life with the choice to afford and enjoy identifiable luxuries of life.⁶

Severity of child's illness is categorized as 'Critical' for those presenting with symptoms that are apparently life-threatening such as seizures, unconsciousness or severe respiratory distress; and 'Non-critical' for those presenting with symptoms that are apparently not life threatening such as fever, cough, vomiting, diarrhoea, abdominal pain, bone pain etc.⁷

The 28-item General Health Questionnaire (GHQ 28) was used to assess the psychological well-being of the caregiver. The GHQ is used to detect psychiatric disorder in the general population and non-psychiatric clinical settings such as primary care or general medical out-patients. It assesses the respondent's current state and asks if that differs from his or her usual state. It is therefore sensitive to short-term psychiatric disorders but not to long standing attributes of the respondent. The 28-item version of the GHQ is particularly useful as it is best suited for the often more interesting need to examine a profile of scores rather than a single score.^{8,9}

The GHQ-28 is the most popular version of the GHQ. It has been validated and used extensively for researches in Nigeria.¹⁰⁻¹² The instrument is a very important screening tool that detects psychological symptoms which do not reach diagnostic threshold. It detects those likely to have or to be at risk of developing psychiatric disorders.^{9,13}

The 28 items, through factor analysis, have been divided into four sub-scales, each containing seven items: somatic symptoms (items 1-7), anxiety/insomnia (items 8-14), social dysfunction (items 15-21), and severe depression (items 22-28). All items have a 4 point scoring system that ranges from a 'better/healthier than normal' option, through a 'same as usual' and a 'worse/more than usual' to a 'much worse/more than usual' option. The exact wording depends upon the particular nature of the item.

In the index study, the dichotomous scoring technique which groups the first two options in the responses as 0 and the last two options as 1 thus giving a possible maximum score of 28 was adopted and the cut-off score was put at 5,¹⁴ implying that any caregiver who has

a total GHQ score of ≥ 5 is defined as having psychological distress. This method has been used by some other researchers in Nigeria.¹² High GHQ score > 5 indicates poorer psychological well-being of the individual. The individual's domain score was obtained by summing the scores of the domain items.

Approval for this study was obtained from the hospital's Health Research and Ethics Committee. A written informed consent for participation in the study was obtained. Confidentiality and anonymity of the data collection tools was ensured.

Data Management and Analysis

The normality of the data variables was determined using the Kolmogorov-Smirnov test. GHQ scores were stated as means \pm standard deviation (SD) while participants' characteristics were expressed as frequencies and percentages. Chi-square test and Fisher's exact test where applicable were used to test for association between socio-demographic factors (age, educational attainment and employment status of the caregivers, area of domicile, family size, child's gender; and psychological distress. Independent sample *t*-test was used to compare mean GHQ scores among the socio-demographic (caregivers' age and gender, level of education, employment status etc. and clinical (illness severity) categories in the various (somatic, anxiety/insomnia, social dysfunction, and severe depression) domains. Statistical significance was set at *p*-value < 0.05 . Data was anonymized and analysed using SPSS version 20 (IBM Inc, Chicago, US, version 2011).

RESULTS

Participants' Basic Characteristics

Ninety-seven caregivers of children admitted with various emergencies participated in the study. One of the participants was eliminated from the analysis for failure to complete the study questionnaire. The caregivers were aged 19 to 63 years; with mean (SD) age of 34.25 (8.46) years. Of the 96 caregivers, 86 (89.7%) females. Majority (87.5%) were the biological mothers of the children (Table 1).

Table 1: Socio-demographic Characteristics of the Participants (n = 96)

Variable	Frequency (n)	Percent (%)
Gender		
Male	10	10.4
Female	86	89.6
Age Group		
Younger (< 35 years)	61	63.5
Older (35 years and above)	35	36.5
Educational Attainment		
Secondary education and below	48	50
Tertiary	48	50
Employment Status		
Employed	78	81.3
Not employed	18	18.7
Place of Domicile		
Rural	49	51
Urban	47	49
Nature of Residence		
Personal/family house	36	37.5
Rented apartment	60	62.5
Marital Status		
Married	83	87.4
Widowed	11	11.6
Never Married	2	2.1
Relationship with Child		
Biological Father	9	9.4
Biological Mother	84	87.5
Guardian/adoptive parent	2	2.1
Others (aunt)	1	1.0
Family Size		
Large (> 4 children)	11	11.5
Small (≤ 4 children)	85	88.5

Prevalence of Psychological Distress among Caregivers

The mean (SD) total GHQ score for the study participants was 7.55 (4.91). The mean GHQ domain scores were 8.56 (3.83), 9.15 (3.46), 7.74 (2.40) and 1.15 (2.36) for the somatic, anxiety/insomnia, social dysfunction and severe depression domains respectively.

Sixty-seven (69.8%) of the 96 participants had psychological distress; mean (SD) GHQ score of 9.75 (4.18). In all 87 (90.6%), 85 (88.5%), 76 (79.2%), and 8 (8.3%) out of the 96 caregivers had psychosocial morbidity in the social dysfunction, anxiety/insomnia, somatic, and severe depression domains respectively.

Association between Sociodemographic variables and Psychological Distress

Table 2 shows the association of

various factors with psychological distress. There was no significant difference in the mean age (SD), 34.2 (8.9) years of caregivers with psychological distress when compared with 34.3 (7.4) years for those without psychological distress ($t=0.072$, $p=0.943$).

No significant association was found between the sociodemographic characteristics (gender, educational attainment, employment status, nature of residence etc.) of the caregivers; gender, birth order and severity child's illness respectively, and psychological distress; $p \geq 0.05$.

Comparison of Mean GHQ Scores in the various Domains of Psychological Morbidity across Groups of Socio-demographic Variables

Those with lower educational attainment had higher scores on severe

Table 2: Association of Socio-demographic Variables with Psychological Distress among 96 Participants

Variables	Psychological Distress Absent n (%)	Psychological Distress Present n (%)	Chi square	P value
Gender				
Male n=10	3(30.0)	7(70.0)	0.988*	
Female n=86	26(30.2)	60(69.8)		
Educational Attainment				
Secondary education and below; n=48	13(27.1)	35(72.9)	0.445	0.505
Tertiary education n=48	16(33.3)	32(66.7)		
Employment Status				
Currently working n=78	26(33.3)	52(66.7)	0.255*	
Currently not working n=18	3(16.7)	15(83.3)		
Area of Domicile				
Rural n=49	14(28.6)	35(71.4)	0.127	0.721
Urban n=47	15(31.9)	32(68.1)		
Nature of Residence				
Personal/family house n=36	13(36.1)	23(63.9)	0.952	0.329
Rented apartment n=60	16(26.7)	44(73.3)		
Family Size				
Large family(>4 children) n=11	2(27.3)	8(72.7)	0.822*	
Small family (≤4 children) n=85	32(30.6)	59(69.4)		
Gender of Child				
Male n=54	16(29.6)	38(70.4)	0.020	0.889
Female n=42	13(31.0)	29(69.0)		
Birth order of Child				
High (1 st to 3 rd) n=71	22(31.0)	49(69.0)	0.028	0.867
Low (4 th and above) n=24	7(29.2)	17(70.8)		
Birth Order of Child				
High (1 st to 3 rd) n=71	22(31.0)	49(69.0)	0.028	0.867
Low (4 th and above) n=24	7(29.2)	17(70.8)		
Severity of Child's Illness				
Critical n=46	14(30.4)	32(69.6)	0.087	0.768
Non-critical n=47	13(27.7)	34(72.3)		

*Fishers Exact Test

depression domain compared to those with higher education ($p < 0.001$) as shown in Table 3. Participants that were unemployed had higher mean scores on the anxiety/insomnia ($p = 0.039$) and social dysfunction domains ($p = 0.031$). Similarly, those with large families (more than 4 children) scored higher on the anxiety/insomnia domain when compared to those with small families ($p = 0.03$).

Relationship between Psychological Morbidity and Duration/Nature of Child Illness

The mean (SD) duration of illness of the children before presentation to the

current health facility among caregivers with somatic dysfunction, anxiety/insomnia, social dysfunction and severe depression were 9.7 (41.6) days, 10.4 (39.9) days, 9.4 (39.2) days, and 50.3 (127.2) days respectively. Duration of child's illness significantly correlated with GHQ scores in the severe depression domains ($r = 0.858$; $p = 0.06$), social dysfunction ($r = 0.278$; $p = 0.009$), anxiety/insomnia ($r = 0.248$; $p = 0.022$), but not for somatic dysfunction ($r = 0.103$; $p = 0.374$).

The nature of symptoms did not significantly differ among the children whose caregivers had psychosocial morbidity. One of the children who presented with difficulty in breathing had

long standing failure to thrive of about 127 days prior to admission, and the caregiver had high GHQ scores ≥ 12 in all the domains.

DISCUSSION

Our study revealed that the prevalence of psychological distress is high among caregivers of children admitted at the children emergency room. Similar studies have documented high level of psychological distress among caregivers of hospitalized children.^{2,4,15,16} While most of these studies focused on anxiety (a major domain of psychological distress) either perceived,² or clinically detected,¹⁵ using varied but standardized tools of assessment, our study used the general health questionnaire to document the general prevalence for psychological distress as well the prevalence of the various domains of psychological morbidity including anxiety, somatic and social dysfunction as well as severe depression. Kanmani and Raju¹⁶ used the depression, anxiety, stress scale DASS 21 to identify caregivers' depression, stress, and anxiety in an emergency and trauma care center and noted that caregivers had experienced mild depression (13.36 ± 3.07), moderate anxiety (13.70 ± 3.03), and minimum stress (13.66 ± 2.98) levels. Embong, *et al*,¹⁵ reported 65.7% prevalence for clinically detected anxiety (as defined by state anxiety score above 49 among parents of sick children presenting acutely to the emergency department of a University Medical Center in Malaysia using the Spielberger State-Trait Anxiety Inventory (STAI) form Y. Using two standardized tests, Psychological Stress Measure (PSM) and State Trait Anxiety Inventory (STAI), Commodari and colleagues² in Italy found significantly high levels of 'perceived' stress (PSM), sample mean (SD) 103.68 (26.62) which was above the Italian norms, mean 90.47 (22.96) and high anxiety trait (STAI state) sample mean (SD), 54.33 (11.69) also above Italian norms, mean 42.68 (11.19) among caregivers of children hospitalized for mild acute diseases.

The index study, however, showed a higher prevalence rate (69.8%) compared to 30.8% and 41.2% respectively reported by Esezobor, *et al*,⁴

Table 3: Comparison of Mean GHQ Scores in the various Domains across Groups of Sociodemographic and Clinical Categories

Variable	Anxiety/Insomnia		Somatic		Social Dysfunction		Severe Depression		Total GHQ Score	
	Mean	t(p-value)	Mean	t(p-value)	Mean	t(p-value)	Mean	t(p-value)	Mean	t(p-value)
Severity of Child's Illness										
Critical; n=46	9.044	0.291(0.771)	8.065	1.371 (0.174)	7.739	0.183 (0.856)	1.139	0.745 (0.458)	7.804	0.388 (0.699)
Non-critical; n=47	9.255		9.149		7.830		1.000		7.404	
Age Group										
≤35 years; n=61	9.295	0.592 (0.555)	8.754	0.626 (0.533)	7.410	1.536 (0.128)	1.098	0.096 (0.923)	7.607	0.296 (0.768)
>35 years; n=34	8.853		8.235		8.177		1.147		7.294	
Gender										
Male; n=10	8.500	0.631 (0.529)	6.500	1.817 (0.072)	7.800	0.084 (0.933)	0.600	0.772 (0.442)	6.500	0.713 (0.477)
Female; n=86	9.233		8.802		7.733		1.209		7.674	
Education										
Secondary & below; n=48	9.688	1.514 (0.133)	8.938	0.957 (0.341)	7.979	0.979 (0.330)	1.937	3.477 (0.001)	6.708	1.698 (0.093)
Tertiary; n=48	8.625		8.188		7.500		0.354		8.937	
Employment Status										
Employed; n=78	8.808	2.090 (0.039)	8.744	0.466 (0.642)	7.487	2.189 (0.031)	0.962	1.608 (0.111)	9.722	2.116 (0.037)
Unemployed n=18	10.667		8.474		8.833		1.944		8.474	
Family Size										
Large >4 children; n=11	11.273	2.198 (0.030)	9.455	0.818 (0.416)	8.364	0.916 (0.362)	1.818	1.005 (0.317)	9.818	1.639 (0.105)
Small ≤4 children; n=85	8.882		8.447		7.659		1.059		7.259	
Sex of Child										
Male n=54	8.963	0.618 (0.538)	8.815	0.729 (0.468)	7.907	0.776 (0.440)	1.130	0.076 (0.940)	7.426	0.284 (0.777)
Female n=42	9.405		8.238		7.523		1.167		7.714	

in Nigeria, and Masulani-Mwale, *et al*⁵ in Malawi. Esezobor⁴ used the GHQ-12 while Masulani-Mwale⁵ used the Self-Reporting Questionnaire (SRQ). The apparent lack of uniformity in the scale of assessment for psychological morbidity in these studies gives no room for adequate comparisons. While these studies focused on caregivers with children who have specific disease conditions or chronic ailments, the index study was on caregivers of children at the emergency unit with diverse acute conditions. Patients admitted to the emergency unit are usually those with acute onset of illness or patients in severe conditions that require urgent intervention on arrival to the hospital. These conditions are more likely to cause acute stress on the caregivers compared to non-emergency cases. Admission into the emergency room generally is for a serious condition with potential threat to life. Most of the conditions warranting admission to the emergency room are either serious acute illness or an exacerbation of a chronic illness. This can evoke a high level of psychological distress particularly anxiety in the caregiver when compared to cases seen at outpatient and specialist clinics. The sudden disruption of the family life as

well as the fear of an unknown outcome such as death, deterioration or complications occasioned by a change in the child's clinical state may largely be responsible for the high level of distress encountered among these care givers. In the qualitative arm of their study, Kanmani and Raju¹⁶ identified the following key factors: difficulty in accessing timely care, uncertainty about the prognosis and future, family concerns and financial constraints, personal feelings and personal needs, and supportive care as the major sources of psychological distress among their study participants. The index study by design did not obtain qualitative data on caregivers' perceived cause of their psychological distress.

On the specific subscales of the General Health Questionnaire, we found high levels of social dysfunction and anxiety among caregivers in the index study. The 88.5% prevalence rate for anxiety was higher than the 65.7% prevalence documented in Malaysia.¹⁵ We also found low levels of depression as well as moderate level of distress in the somatic domains respectively among our participants. Similar findings have been reported in Canada,¹⁷ Italy,² and Bengaluru.¹⁶

The higher prevalence for anxiety compared to depression seems to be justified because acute illnesses, being of sudden onset and quick evolution are more likely to create a state of nervousness and a stronger desire for urgent intervention unlike chronic illnesses which are more likely to create a state of hopelessness, leading to depression. Embong, *et al*¹⁵ noted that parental anxiety upon arrival to the hospital appeared to be significantly higher than expected suggesting that intervention may be needed to defray the morbid fears among caregivers of sick children admitted to the emergency unit.

The caregivers in the current study were mainly the mothers of the children. This is not surprising considering that by the African culture mothers are the main caregivers of children in our society, both at home and during hospitalization. The majority of the caregivers in similar studies,^{2,4,15} were females (mostly biological mothers of the sick children). On the other hand, Kanmani and Raju¹⁶ noted that 72% of the caregivers of children with traumatic brain injury in an emergency and trauma care center in India were males. The circumstance found in India was that following an existing rule, in the center, a caregiver of the same

gender is permitted to take care of a particular traumatic brain injury (TBI) survivor. For example, male TBI survivor are catered for by their male family member while female survivors, are catered for by their female family members as a caregiver. Their patients who were mostly males had their male family members as caregivers. However, there was no significant difference in the level of psychosocial distress between the male and female caregivers in the index study though male caregivers were fewer in number by default. Similar studies did not find any significant difference in the level of psychosocial distress between male and female caregivers.^{2,4,18}

Generally, caregivers with higher educational attainment did not show any significant difference in their ability to withstand psychosocial stress when compared to those with lower educational attainment. However, caregivers with lower educational attainment were more likely to have severe depression compared to those with higher educational attainment. There has been evidence linking high educational attainment and low level of psychological distress.¹⁹ This has been explained through the mechanisms of social and labour-market resources. People with higher education tend to have better feeling of being valued and cared for and also better access to networks and friends that enable them cope better with stressful conditions.¹⁹ Other authors, however, have reported no significant association of educational status with psychological distress among caregivers of sick children.^{2,4,5,20}

Caregivers who were unemployed had more significant levels of anxiety/insomnia and social dysfunction when compared to those that are employed. This suggests that being occupationally engaged has positive effect on amelioration of psychological distress. Masulani-Mwale, *et al.*,⁵ had reported similar findings in Malawi. Notably, those with large family size had more significant levels of anxiety than the caregivers with small family sizes. This observation is attributable to the difficulties faced by parents to cater for large families in the present day Nigeria with its enormous economic challenges. Other socio-

demographic factors such as caregiver's age, marital status, and gender of the sick child did not have any significant association with psychological stress.

The nature of symptoms and severity of illness among the children did not significantly impact on the type of psychosocial morbidity found among the caregivers. The duration of child illness prior to presentation to the children emergency room in the current study did not differently influence the level of psychological distress but it was observed that caregivers of children who had been ill for more than 50 days had severe depression as well as high levels of anxiety. On the contrary, Embong, *et al.*¹⁵ found that the child's state of illness was the dominant psychosocial factor associated with parental anxiety reported by the subjects. They also reported lack of association between parental anxiety level and duration of illness. In the same vein, Cousino and Hazen³ in a systematic review of factors that influenced level of stress among parents of children with chronic illness observed that general parenting stress was associated with greater parental responsibility for treatment management and was unrelated to duration and severity of illness across illness populations. It may then be inferred that presence or absence of psychosocial distress are modified by several independent factors and may be masked by the caregivers' ability to cope with the challenges faced at the time.

The major strength of the index study is that it has been able to demonstrate a high level of psychosocial distress among caregivers of children admitted to the children emergency room. Although our study was not designed to make specific diagnosis of the various psychosocial disorders among the participants it has shown that caregivers of these children have high level of anxiety and demonstrable somatic and social dysfunction which are influenced by their sociodemographic characteristics.

Limitation of the Study

The financial status (or mode of payment, for instance, if on health insurance) of the caregivers at the time

of presentation was not ascertained as finance could be a major factor to people's distress when their children are ill and more so in an emergency situation.

In conclusion, the prevalence of psychological distress is high among caregivers of children admitted in the emergency room. There is a high level of anxiety and demonstrable somatic and social dysfunction, with lower level of depression. Low educational attainment and unemployment had negative influence on the psychological distress experienced by caregivers. We recommend further research on a larger scale and the use of longitudinal studies to examine the effect of the associations found in this study. In addition, the relationship between family size (number of children) and psychological distress in the caregivers should be tested further in future empirical studies.

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Previous Publication

Findings of this research has not been previously published in any other journal.

Conflicting Interest

None to declare.

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