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Abstract

Background: Depression in caregivers of leukaemic children is usually overlooked and hence missed, as doctors mostly focused on patient's evaluation and condition. Early attention to symptoms of depression may help to prevent the development of a more serious depression over time.

Aims: This study was conducted to estimate the prevalence, assess severity and identify determinants of depressive disorder among caregivers of children with leukaemia in Baghdad, Iraq, 2014.

Methods: This cross sectional study was conducted on a convenience sample of caregivers of 250 leukaemia children aged 16 were considered depressed.

Results: The prevalence of depression was 72% (95% CI: 66–77.5%); classified to 18.9% having borderline clinical depression, 36.7% moderate depression, 27.8% severe depression and 16.7% extreme depression. Presence of depression was significantly higher among younger age caregivers, disease duration of >12 months and frequent hospital admission.

Conclusions: The high prevalence of depression among care givers of leukaemia patients urge

health care professionals to pay more attention to the psychological aspects of the families of leukaemia patients and ensure referring them for psychiatric support.

Keywords: depressive disorders, caregivers, leukaemia, determinants, Iraq

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Introduction

Leukaemia is the most common malignant neoplasm in childhood, accounting for about 31% of all malignancies among children less than 15 years of age (1). In Iraq, the latest figures indicate a total leukaemia rate of 4.18 per 100 000 among boys, and 2.07 per 100 000 among girls during 2008–2009 (2). Since the late 20th century, the overall survival rate of Acute Myeloblastic Leukaemia (AML) has improved and reached 45–60% (3), while the 5-year survival rate for children diagnosed with Acute Lymphoblastic Leukaemia (ALL) rose from 84% during 1990–1994 to 90% during 2000–2005 (4).

A diagnosis of leukaemia reverberates around the family and has implications for all, not just the diseased child (5), and marks the beginning of social and psychological devastation for the whole family especially the mother. The length and intensity of the treatment can be as distressing as the disease itself, negatively affecting their functionality as parents and in turn the child's ability to handle the treatment (6). This makes children with leukaemia and their families require long-term help and support from various agencies, including the primary health care team.

The term family caregiver refers to an unpaid family member, friend or neighbour who provides care to an individual that has an acute or chronic condition and needs assistance to manage a variety of tasks, from bathing, dressing to taking medication (7). Care giving also involves a great deal of emotional support that may include listening, counseling and companionship (8). Today, one of the all-too silent health crises is caregiver depression. Early attention to symptoms of depression may help to prevent the development of a more serious depression over time (9), although stigma and lack of awareness of mental disorders lead to under-use of available mental health services (10).

It has been found that the younger the caregiver, the higher stress she or he experiences (11). The most important concern of the families was the provision of the necessary time and expenses (12). Parents of children with cancer suffered greater financial hardship than parents of children with other serious illness (13). Having other children to be looked after is an additional role for the caregiver that requires time and energy. The most time- and energy-consuming task performed by parents are the provision of emotional support to the ill child and supporting other children (14). Decrease in contact with others and planned activities and decreased time for social activities predicted distress in cancer caregivers (11). Continuation of a normal life is difficult for both the child and the mother due to economic burdens, problems at work, and restriction of social life (15).

Caregivers need a range of support services to remain healthy, improve their caregiving skills and remain in their caregiving role. Support services include information, assistance, counseling, respite, home modifications or assistive devices, caregiver and family counseling, and support groups (9). A lot of studies evaluated the psychiatric impact of different chronic diseases on the patients themselves, but little is known about this problem among the caregivers, and even less in Iraq. The objectives of this study were to estimate the prevalence, assess severity and identify determinants of depression among caregivers of children with leukaemia in Children Welfare Hospital, Baghdad, Iraq, 2014.

Methods

This cross-sectional study was conducted on a convenience sample of caregivers of 250 leukaemia children aged

Data collection

All information was obtained from the caregivers using a questionnaire that was filled through direct interview and gathered socio-demographic data of the caregiver (age, sex, residence,

employment status, marital status, educational level, income, relationship to the patient and counts of other children to be looked after) and the disease status of the leukaemic child (age of onset of disease in years, duration of disease in months, and number of hospital admissions). Assessment of presence and severity of depression among caregivers were evaluated using the Arabic version of Beck Depression Inventory II (BDI-II) questionnaire. This questionnaire is the most frequently used screening instrument in clinical work and research on depression (16–19), created by Aaron T. Beck, and consists of 21-multiple choice survey measuring the mood of the participants for the previous two weeks. It was also proved useful for measuring the severity of depression (17). The easy applicability and psychometric soundness of this scale have popularized its use in a variety of samples and in health care setting worldwide (20).

The scores obtained from each question ranges from 0–3, the total score was calculated and it measures the presence and severity of cognitive and somatic symptoms of depression on a scale from 0–63. A score of 0–16 is considered normal, 17–20: borderline clinical depression, 21–30: moderate depression, 31–40: severe depression and over 40: extreme depression (19). A score of ≥17 is considered depression.

Statistical analysis

Statistical Package for Social Science (SPSS 19) was used for data entry and analysis. Chi square test (X2-test) of independence was used to test association between categorical data. Logistic regressions analysis was used to identify the independent risk factors of depression (as outcome variable), with calculation of the Odds Ratio (OR) and its 95% Confidence Interval (CI). Statistical significance was considered whenever P-value was equal or less than 0.05.

Results

A total of 250 caregivers (all were females) were included. The age range was 18–54 years, the mean age (±standard deviation) was 34 (±8.7) years. Caregivers living in Baghdad represent 56.8%, the remaining were from other governorates. The majority of caregivers were housewives (88.4%, 221), and 92% (229) were married. (Table 1)

Secondary school and primary school graduates constituted 37.6% (94) and 36% (90) respectively, while illiterate represents 18.4% (46). Caregivers with inadequate income level were 58.4% (146). Mother caregivers constituted the vast majority (88.8%, 222), while grandmothers and aunts constituted the remaining 11.2% (28). Caregivers who were caring for 3+ children constituted 57.2% (143) and those with no other children to care for constituted 11.6% (29) (Table 1).

The proportion of studied children who developed leukaemia under five years old was 60% (150) (Table 2). The mean age (±SD) was 4.4 (±2.3) years. The duration of leukaemia of more than 12 months was reported in 35.6% (89) of leukaemic children. Leukaemic children who had 6+ hospital admissions constituted 36% (90), and those mitted for the first time constituted 31.2% (78) (Table 2).

According to the results of BDI-II questionnaire, 72% (180) of the study sample has depression; 95% CI 66.0–77.5%. Around 37% (92) of those with depression had moderate depression, followed by those having severe depression (27.8%, 70). Only 16.7% (42) had extreme severe depression.

The prevalence of depression was highest among youngest age group (