Abstract  Background Previous studies suggest that single mothers are at a higher risk of major depression and more likely to use mental health services than are married mothers. The objectives of this analysis were to provide estimates of the prevalence of major depressive syndrome among single and married mothers, to investigate the factors which may affect the difference in the prevalence of major depressive syndrome among single and married mothers and to estimate the health care service utilization by single and married mothers. Methods This was a cross-sectional study using the data from the 1996–97 Canadian National Population Health Survey (NPHS). Major depressive syndrome was evaluated using the Composite International Diagnostic Interview – Short Form for major depression. The prevalence of major depressive syndrome was calculated among 3030 single and 10195 married mothers. The effects of demographic, socioeconomic and biological variables on the association between single-mother status and major depressive syndrome were evaluated by stratified analyses. Results In the NPHS, the difference between single and married mothers in the prevalence of major depressive syndrome was found among women who were between the ages of 25 and 50. The association in this age group depended on race and on whether they had one or more jobs. Education, problem drinking, daily smoking, having one or more long-term medical illnesses, financial hardship and social support did not affect the association between single-mother status and major depressive syndrome. Single mothers were more likely to visit health professionals for mental problems than were married mothers. Conclusion The difference between single and married mothers in the prevalence of major depression is age-specific. Single mothers who reported having had one or more jobs and who are non-white had an increased risk of having major depressive syndrome compared to married mothers. Future studies need to replicate the findings of this analysis and investigate why single mothers with ethnic minority backgrounds and those who are working are at high risk of having depressive disorders.

Key words  single mothers – major depression – impairment – mental health service utilization – general population – cross-sectional study

Introduction

Single mothers represent a fast-growing segment in society. According to Canadian census data, single mothers headed 10.7% of Canadian families in 1991 (Statistics Canada 1991) and 12% in 1996 (Statistics Canada 1996). As a result, there has been an increasing interest in the health conditions associated with this family structure. Major depression is one of the most prevalent and chronic mental disorders in the general population, has a significant impact on individuals’ social functioning and imposes considerable economic burden on society. However, few epidemiological studies have been conducted to investigate the difference between single and married mothers in depressive disorders, and the findings of previous studies have not been completely consistent.

In a longitudinal study conducted in Islington, United Kingdom, Brown and Moran (1997) reported that, compared to married mothers, single mothers had a higher risk of having major depression, measured by
the Present State Examination (Wing et al. 1974, 1977), during a 2-year follow-up period. Despite the strengths of using a community-based sample, a longitudinal design and face-to-face interviews, the sample size of Brown and Moran’s study was relatively small (N = 353). Using the 1994–1995 Canadian National Population Health Survey (NPHS) data, Cairney et al. (1999) reported that single mothers had a higher 12-month prevalence of major depression (15.4%), measured by the Composite International Diagnostic Interview – Short Form for Major Depression (CIDI-SFMD; based on the DSM-III-R criteria), than married mothers (6.8%). The association persisted after the effects of demographic and socioeconomic factors were controlled (Cairney et al. 1999). Similarly, using the data from the Ontario Health Supplement Study, Lipman et al. (1997) also found that single mothers had a higher prevalence of major depression than did married mothers. The samples of these two Canadian studies (Lipman et al. 1997; Cairney et al. 1999) are more comparable to the one used in the current analysis (see the Subjects and Methods section). However, Weissman et al. (1987) reported that single mothers only had a higher 6-month prevalence of dysthymia, but not of major depression measured by the Diagnostic Interview Schedule (Robins et al. 1981) in a community-based study conducted in New Haven, United States. It is possible that differences in rates of major depression may exist between single and married mothers in sub-populations, such as those with different ethnic backgrounds.

Hope et al. (1999) outlined four possible explanations for the elevated levels of psychological distress among single mothers, i.e., financial hardship, unemployment, lack of social support and the sole responsibility for the care of children. Other literature suggests that these factors may be independently related to the development of depression among single mothers. Single mothers often have lower educational and income levels than do married mothers (Lipman et al. 1997; Brown and Moran 1997; Cairney et al. 1999; Perez and Beaudet 1999) and have insufficient social support (Murata 1994; Perez and Beaudet 1999; Youngblut et al. 2000). Depression has been found to be associated with low educational level and poverty (Costello 1991; Bruce et al. 1991; Regier et al. 1993; Jackson et al. 2000; Patten 2001; Coid 2001) and insufficient social support (Wade and Kendler 2000; Patten 2001; Parker and Ritch 2001). The role of employment status in the association between single-mother status and depression is not clear. Canadian data showed that single mothers were more likely to be unemployed than married mothers (Cairney et al. 1999). In contrast, Brown and Moran (1997) found that single mothers were more likely to have full-time employment than married mothers among Islington women. Underemployment may increase the risk of depression (Dooley et al. 2000), but there is also evidence that full-time employment is an important risk factor for the onset of depression among single mothers (Brown and Moran 1997). Smoking, problem drinking and long-term medical illnesses are prevalent among single mothers (Barker and North 1999; Dorsett 1999; Shouls et al. 1999; Siahpush et al. 2002). Smoking and alcohol consumption may not only impair the health of single mothers, but also worsen their financial situation, making these factors possible causal factors for depression among women (Hamalainen et al. 2001; Wang and Patten 2002). These socioeconomic, behavioral and clinical variables may alter the association between single-mother status and major depression. However, the specific impacts of these factors on the relationship between single-mother status and depression are not clear.

If single mothers are more likely to be depressed than married mothers, it becomes important to investigate whether single mothers are more likely to use mental health services and which health professionals single mothers with depression are more likely to visit for mental health reasons. While Lipman et al. (1994) reported that single mothers were more likely to use outpatient services for mental health reasons in the past year, Weissman et al. (1987) failed to find an increased use of outpatient mental health services by single mothers. Neither of these studies examined the difference between single and married mothers in visiting specific health professionals for mental health problems.

The objectives of the current analysis were to: (1) determine whether single mothers had an increased prevalence of major depressive syndrome, (2) determine the effects of demographic, socioeconomic, psychological and clinical factors on the association between single-mother status and major depressive syndrome; and (3) compare the mental health service utilization of single and married mothers.

Subjects and methods

The NPHS is a national survey using multiple-staged, stratified random sampling procedures. It was initiated by Statistics Canada in the period 1994–1995 and is conducted every 2 years. The target population comprises the household residents who are aged 12 and over in all Canadian provinces, excluding those living in long-term institutions, in the Yukon and North West Territory, on Indian reserves and military bases and in some remote areas in Ontario and Quebec (Statistics Canada 1995). The 1994–1995 NPHS was conducted by face-to-face interviews. Telephone interviews were performed in the subsequent waves of NPHS. For those who did not have a telephone or who could not be located by telephone, face-to-face interviews were conducted. The NPHS data are collected by experienced interviewers (both face-to-face and telephone interviewers), hired and trained by Statistics Canada. There have been three surveys to date. For this analysis, data from the 1996–1997 NPHS were used because of its large sample size (N = 81,434).

The NPHS respondents who reported having one or more children living at home and not living with a partner were defined as single mothers (N = 3,030). Females who reported a living arrangement of two parents with one or more children at home were considered to be married mothers (N = 10,195).

In the NPHS, major depression was measured using the CIDI-SFMD according to the DSM-IV criteria among subjects who were aged 12 and over. This instrument was developed and validated by Kessler et al. (1998). In the NPHS, major depression refers to major depressive episodes which occurred in the previous 12 months. A CIDI-SFMD probability of 0.9 indicates major depression. This cut-point