

## RESEARCH ARTICLE

# The Impact of Caregiving on the Development of Major Depressive Disorder and Generalized Anxiety Disorder

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Providing care for a relative is associated with psychological distress and a higher prevalence of psychological disorders. This study investigated the prevalence of anxiety and depressive disorders among the caregiving population. The study was based on data drawn from the Collaborative Psychiatric Epidemiology Surveys (CPES). Binary logistic regressions were conducted to examine these associations and to identify factors influencing the development of depressive and anxiety disorders. The analysis indicated that respondents providing care for a relative were at a higher risk of developing a psychological disorder. A number of socio-demographic variables were identified as increasing the risk of developing a psychological disorder such as being younger, female and divorced. The findings highlight the importance of support and interventions for family caregivers.

**Keywords:** Caregiving; Psychological Distress; Anxiety/Depressive disorders; CPES

The growth of the older adult population, increased prevalence of chronic diseases, higher rates of survival among people with disabilities, and high costs of institutional care have forced millions of individuals into stressful roles of providing care for ill or disabled family members (Talley & Crews, 2007). Caring for an ill family member consumes a huge amount of energy, time, and money over potentially long periods of time. Due to the consuming nature of the caring task, caregiving can be psychologically stressful and exhausting, (Pruchno, Kleban, Michaels, & Dempsey, 1990). A survey conducted by Cheffings (2003) of over 1000 caregivers indicated that nearly half of the respondents reported that their health was negatively affected by their caregiving role. Comparable results were found in a survey by Carers UK (2002) where the most common negative emotions reported by caregivers were feelings of being mentally, emotionally, and physically drained.

Research has demonstrated that racial and ethnic differences exist within the level of psychological distress experienced by caregivers. For example, Hilgeman et al. (2009) found that a sample of Caucasian caregivers reported more psychological stress when compared to African American caregivers. A number of socio-demographic factors including age, gender, socioeconomic status and the type and quality of the caregiver relationship have been identified as contributing to caregivers stress. The effect of all of the socio-demographic variables mentioned above on the caregiver's quality of life is unclear as findings from

previous studies have been mixed (Wilder, Oliver, Demiris, & Washington, 2008). A study conducted by Carter, Lewin, Rashid, Adams, and Clover (2008) indicated that enhanced quality of life for caregivers was correlated with caregivers who were married to the care recipient, male, older, and had achieved a minimum of a high school education. The age of the caregiver was found to have an impact on the caregiver's stress where younger caregivers are more likely to experience caregiver stress. Pinguart and Sorenson's (2007) study found that there was a higher rate of depression in older caregivers but a higher prevalence of anxiety in younger caregivers. This was believed to be due to fewer external coping resources such as money and time for older caregivers but more competing roles such as jobs and other caregiving responsibilities for younger caregivers.

Differences in the stressors associated with caregiving have been identified for caring for a person with a psychological illness and caring for a person with a physical illness. Research conducted by Teri et al. (1992) demonstrated that the care of an older relative with both dementia and depression was associated with higher levels of burden compared to caregivers of a relative with a physical illness such as heart disease. A survey conducted by the National Association for Caregiving and the American Association of Retired Persons (AARP, 2004) with a large sample of over 1500 caregiving families found that when compared with caregivers of physically disabled older adults, caregivers of relatives with dementia provided more assistance and reported that providing care was more stressful, impacted more on time spent with their other family members, and had a higher rate of work related difficulties.

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People caring for a relative with a mental or physical illness face both similarities and unique characteristics in relation to the task of caregiving, influencing the experienced level of burden. For example, due to the nature of a mental illness, caregivers may experience periods of wellness followed by periods of illness at a more frequent level than people with a physical illness (Seltzer, Greenberg, Floyd, & Hong, 2004). Furthermore, caregivers to people with a mental illness also have to deal with a stigma that may be associated with a mental illness. The cyclical nature of a mental illness coupled with the stigma experienced by caregivers could result in caregivers of mentally ill people experiencing a higher level of caregiver stress (Seltzer et al., 2004).

Most previous research has been based on a small sample size of caregivers who are providing care for people with specific illnesses such as dementia or heart disease. These studies due to their sample sizes cannot be generalised to the population. Our study is one of a few epidemiological studies conducted within the area of caregiving. Past research has focused primarily on the impact of caregiving on the caregivers' levels of depression. Few studies have examined the effect of caregiving on the caregivers' levels of anxiety. Therefore, this study has extended the scope of previous research by looking at these aspects.

In order to overcome the deficits of previous research, the primary aim of this study is to investigate the prevalence of both depression and anxiety disorders, among individuals caring for a relative with either a physical or a psychological illness. A secondary aim of this study is to investigate the impact of several mediating variables such as demographic and socio-economic status on the development of caregivers' psychological disorders. In order to achieve the aims, this study has three main hypotheses: (1) there will be a higher prevalence of depressive and anxiety disorders among people providing care for an ill relative; (2) there will be a higher prevalence of depressive and anxiety disorders among people providing care for a relative with a psychological rather than a physical illness; and (3) work status, marital status, education, age, and gender of the caregiver will significantly affect the likelihood of developing a depressive or anxiety disorder.

## Method

### Procedure

For the purpose of this study, the public version of the CPES was downloaded (Alegria, Jackson, Kessler, & Takeuchi, 2008). We examined the original data for the relevant variables for the prevalence of depressive and anxiety disorders within the past 12 months as well as socioeconomic and demographic status. The data chosen from the original National Institute of Mental Health Collaborative Psychiatric Epidemiology Surveys (NIMH-CPES) data set were then extracted and recoded to allow conclusions to be drawn on the hypotheses raised in this paper. Ethical approval for the current study, using secondary data analysis, was obtained from the Psychology (Magee) Research Governance Filter Committee at the University of Ulster.

### Sample

The NIMH-CPES sample was based on a multistage clustered area probability sample of the US population. The sample consisted of 20,013 American citizens. The mean age of the sample was 43.38. The sample was representative of the US population and also racially and ethnically diverse. Therefore, the results of these findings include different racial and ethnic backgrounds which most previous research has failed to consider. Further information on the sample designs can be found in Heeringa et al. (2004). Please refer to **Table 1** for the main features of the sample designs of the Collaborative Psychiatric Epidemiology Studies.

### Measures

The CPES surveys were developed under the sponsorship of the NIMH (Alegria et al., 2008). The primary objective of CPES was to collect data on the prevalence of mental disorders, impairments associated with these disorders, and their treatment patterns. The CPES combines three nationally representative surveys: the National Comorbidity Survey Replication (NCS-R), the National Survey of American Life (NSAL), and the National Latino and Asian American Study (NLAAS).

The core NIMH-CPES questionnaire was based on the World Health Organization's (WHO) expanded version of

Sample Design Feature	National Comorbidity Survey Replication (NCS-R)	National Survey Of American Life (NSAL)	National Latino and Asian American Study (NLAAS)
Survey Population	Adults aged 18 and over in the United States living in households.	Afro-Caribbean, African American and non-Hispanic white adults, aged 18 and over living in households in the United States.	Latino and Asian-American adults, aged 18 and over living in households in the United States, Hawaii and Alaska
Sample Frame	Four-stage national area probability sample.	Four-stage national area probability sample with special supplement for Afro-Caribbean adults.	Four-stage national area probability sample with special supplements for adults of Puerto Rican, Cuban, Chinese, Filipino and Vietnamese national origin.
Sample Size	9,282 completed interviews with eligible respondents.	6,199 completed interviews with eligible respondents.	4,649 completed interviews with eligible respondents.

**Table 1:** Key Features of Collaborative Psychiatric Epidemiology Studies Sample Designs (CPES).

the Composite International Diagnostic Interview (CIDI) developed for the World Mental Health Survey Initiative, the WMH-CIDI (Kessler & Ustun, 2004). WMH-CIDI is a fully structured lay-administered diagnostic interview that generates diagnoses according to definitions and criteria of both the International Classification of Diseases -10 (ICD-10; WHO, 1996) and the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR; APA, 2000) diagnostic systems. The WMH-CIDI interviews were administered using computer-assisted interviewing. CIDI validity studies indicate that there is a significant association between diagnoses based on data collected by the CIDI and diagnoses made by clinicians who re-interview a sample of respondents (Kessler & Ustun, 2004). For additional information, refer to Kessler and Ustun (2004).

### Disorders

The psychological disorders measured in this study are major depressive disorder (MDE) and generalized anxiety disorder (GAD) as defined by the DSM-IV-TR (APA, 2000). In the National Comorbidity Survey, 58% of patients diagnosed with major depression were found to have an anxiety disorder; among these patients, the rate of comorbidity with Generalized Anxiety Disorder was 17.2% (Kessler & Ustun, 2004). Based on these high co-morbidity rates, the results yielded may have been influenced by the two independent variables in this study being highly correlated.

### Demographic Variables

The following socio-demographic variables were used in the study, sex, age (mean = 43.38), marital status, work status, and education. The variable marital status included three categories, married, divorced, separated or widowed and never married. The variable work status also included three categories, employed, not in the labour force, and unemployed. Education included four categories which are education greater than or equal to 16 years, education 0 to 11 years, education 12 years, and education 13 to 15 years.

### Type of Caregiver

The variable caring for a relative with a physical illness included the following physical illnesses: heart problem, memory problem, mental retardation, physical disability, and chronic physical illness. The variable caring for a relative with a psychological illness included the following psychological illnesses: drug/alcohol problem, health problem depression, health problem anxiety, health problem manic depressive, and health problem other serious chronic mental health problem.

### Analytical Strategy

Cross tabulation analyses were computed to examine the association between caregiving and depression and anxiety disorders. Binary logistic regressions were conducted to assess the impact of a number of factors on the development of depressive and anxiety disorder. The models contained the following predictor variables sex, age, work

status, marital status, years of education, and type of relative's illness.

### Results

Out of the total sample ( $N = 20,013$ ), 9.7% of respondents suffered from a depressive and/or an anxiety disorder with 6.5% ( $n = 1,293$ ) suffering from a depressive disorder and 3.2% ( $n = 646$ ) suffering from an anxiety disorder. Out of the total sample ( $N = 20,013$ ), 11.2% ( $n = 2,239$ ) of respondents provided care for a relative. In the caregiver sample of ( $n = 2,239$ ), 58% ( $n = 1,310$ ) provided care for a relative with a physical problem while 41% ( $n = 929$ ) provided care for a relative with a psychological problem. The most common physical illness reported was heart problems. Out of the sample of respondents caring for a relative with a physical problem ( $n = 1,310$ ), 42% ( $n = 557$ ) of respondents provided care for a relative with a heart problem. The most common psychological illness reported was depression. Out of the sample of respondents caring for a relative with a psychological problem ( $n = 929$ ), 62% ( $n = 582$ ) cared for a relative with depression. Please refer to **Table 2** for an illustration of the frequency and percentages of the socio-demographic variables included in the study.

A two-way cross tabulation analysis was conducted to examine the association between caring for a relative with a psychological disorder and suffering from a depressive or an anxiety disorder. The chi square test for independence indicated a significant association between

	Frequency	Percentage
Gender		
Male	8550	42.7%
Female	11463	57.3%
Employment Status		
Employed	13123	65.8%
Unemployed	1690	8.5%
Not in Labour Force	5135	25.7%
Marital Status	2003	
Married/Cohabiting	10735	53.7
Divorced Separated Widowed	4514	22.6%
Never Married	4754	23.8%
Years of Education		
0 to 11 Years	4056	20.3%
12 Years	5937	29.7%
13 to 15 Years	5290	26.4%

*Note.* Male:  $n = 8550$ , Female:  $n = 11463$ , missing cases = 0; Employment Status:  $n = 19948$ , missing cases = 65; Marital Status:  $n = 2003$ , missing cases = 10; Education  $n = 2013$ , missing cases = 0.

**Table 2:** Frequency and Percentage of Socio demographic variables included in the study.

	<i>B</i>	<i>S.E.</i>	<i>Wald</i>	<i>p</i>	<i>Odd Ratio</i>	<i>95% Lower</i>	<i>C.I. Upper</i>
Sex	-	.20	9.02	.003	0.533	0.354	0.804
Age	-	.00	5.68	.017	0.982	0.968	0.997
Sex by Age	-.007	.013	0.325	.569	0.993	0.967	1.018
Unemployed	-.055	.362	0.023	.879	0.946	0.466	1.923
Not Labour	.534	.213	6.263	.012	1.705	1.123	2.590
Ed Yrs 0–11	.013	.302	0.002	.966	1.013	.560	1.833
Ed Yrs 12	-.189	.245	0.594	.441	.828	.513	1.338
Ed Yrs 13–15	.065	.229	0.081	.777	1.067	.682	1.671
Div/Sep/Wid	.688	.219	9.868	.002	1.990	1.295	3.057
N Married	.349	.254	1.897	.168	1.418	0.863	2.331
Rel/Physical	-.114	.208	0.302	.582	0.892	0.594	1.340
Rel/Psych	1.205	.241	25.084	.000	3.337	2.082	5.348
Impact of Illness	-.173	.082	4.416	.036	0.841	0.716	0.988
Constant	-2.70	.435	38.687	.000	0.067		

*Note.* Not Labour = Not in Labour Force. /Div/Sep/Wid = Divorced/Separated/Widowed/N Married = Never Married/Rel/Physical = Relative with Physical Illness/ Rel/Psych = Relative with Psychological Problem.

**Table 3:** Binary Logistic Regression Predicting Likelihood of Suffering from a Depressive Disorder.

depression disorder and providing care for a relative with a psychological illness,  $\chi^2(1, n = 3092) = 90.35, p < .05, \Phi = .17$ . A significant association was also found between providing care for a relative with a psychological illness and suffering from an anxiety disorder,  $\chi^2(1, n = 3,092) = 28.794, p < .05, \Phi = .09$ .

Following the significant association found between caring for a relative with a psychological disorder and suffering from a depressive or anxiety disorder, the analysis investigated the association between caring for a relative with a physical illness and suffering from an anxiety or depressive disorder using a two-way cross tabulation analysis. In contrast to caring for a relative with a psychological disorder, the chi square test for independence showed that there was no significant association between depression disorder and providing care for a relative with a physical illness,  $\chi^2(1, n = 3,137) = 1.364, p > .05, \Phi = .022$ . Similar to depression, a non-significant association was found between caring for a relative with a physical illness and suffering from an anxiety disorder,  $\chi^2(1, n = 3,137) = .12, p > .05, \Phi = .008$ . In summary, respondents caring for a relative with a psychological disorder had a higher frequency of both depression and anxiety disorders when compared to non-caregivers, whereas respondents caring for a relative with a physical illness did not have a statistically higher frequency of depression and anxiety disorders.

#### **Binary Logistic Regression**

A binary logistic regression was performed to investigate the impact of a number of factors on the likelihood of suffering from a depressive disorder. In relation to a depressive disorder, the model containing all variables was

statistically significant ( $\chi^2(13, n = 1,648) = 94.681, p < .05$ ). Six out of the seven variables made a statistically significant contribution to the model: sex, age, employment status, marital status, and type of relative's illness. Please see **Table 3** for the Binary Logistic Regression model predicting the likelihood of suffering from a depressive disorder.

In relation to an anxiety disorder, the model containing all six variables was statistically significant ( $\chi^2(13, n = 1,648) = 42.848, p < .05$ ). In contrast to the model for depression disorder where six out of the seven variables made a significant contribution, three out of the seven variables made a statistically significant contribution to the anxiety model. The following variables made a significant contribution to the model: marital status, type of illness, and intensity of illness. Please see **Table 4** for the Binary Logistic Regression model predicting the likelihood of suffering from an anxiety disorder.

#### **Discussion**

The primary aim of this study was to investigate the impact that providing care for a relative has on the occurrence of a Depressive Disorder and Generalized Anxiety Disorder as defined by the DSM-IV-TR (APA, 2000). Specifically, this study aimed to decipher whether significant differences in the prevalence of depressive and anxiety disorders existed among caregivers who provide care for a relative with a physical illness and those who provide care for a relative with a psychological illness. A secondary aim of this study was to identify the predictive value of a number of factors that would impact the likelihood of a person suffering from a Depressive Disorder or a Generalized Anxiety Disorder. The study provides comprehensive findings on the impact that caregiving has on psychological

	<i>B</i>	<i>S.E.</i>	Wald	<i>p</i>	Odd Ratio	95% Lower	<i>C.I.</i> Upper
Sex	-	.25	0.539	.463	0.828	0.499	1.371
Age	-	.01	1.76	.185	0.987	0.967	1.006
Sex by Age	.007	.016	0.186	.667	1.007	0.976	1.038
Unemployed	-.718	.612	1.373	.241	0.488	0.147	1.620
Not Labour	.369	.280	1.737	.188	1.446	0.836	2.502
Ed Yrs 0–11	-.459	.393	1.366	.242	0.632	0.292	1.365
Ed Yrs 12	-.586	.309	3.605	.058	0.557	0.304	1.019
Ed Yrs 13–15	-.403	.290	1.929	.165	0.668	0.379	1.180
Div/Sep/Wid	.855	.263	10.562	.001	2.352	1.404	3.938
N Married	-.642	.435	2.182	.140	0.526	0.224	1.234
Rel/Physical	-.397	.275	2.077	.150	0.673	0.392	1.154
Rel/Psych	.704	.296	5.648	.017	2.023	1.131	3.616
Impact of Illness	-.215	.107	4.060	.044	0.806	0.654	.994
Constant	-2.34	.538	18.977	.000	0.096		

*Note.* Not Labour = Not in Labour Force. /Div/Sep/Wid = Divorced/Seperated/Widowed/N Married = Never Married/  
Rel/Physical = Relative with Physical Illness/ Rel/Psych = Relative with Psychological Problem.

**Table 4:** Binary Logistic Regression Predicting Likelihood of Suffering from an Anxiety Disorder.

well-being. Moreover, a number of risk factors were identified as significantly increasing the likelihood of suffering from a depressive or anxiety disorder.

Similar to Cheffings' (2003) research, which indicated that caregivers were negatively impacted by their caregiving role, the cross tabulation analysis indicated that caregivers had a higher rate of depression when compared to non-caregivers. The higher prevalence of depressive disorders reported by caregivers is similar to previous research findings. Schulz et al. (1995), following a meta-analysis, concluded that in almost every study, caregivers reported an elevated level of depressive symptoms compared to comparison groups. One possible reason for this and similar research findings is that the chronic stressors of caregiving can lead to psychological distress and the development of psychological disorders such as depression. Genetic predisposition should also be taken into consideration as an alternative explanation for the higher rate of psychological disorders among caregivers. In essence, respondents caring for a relative with a psychological disorder may be more likely to suffer from a psychological disorder due to their genetic vulnerability to developing a psychological disorder rather than the specific stressors associated with caregiving.

Contrary to the first hypothesis which stipulated that caregivers would have a higher prevalence of anxiety disorders, the analysis indicated that the prevalence of anxiety disorders among caregivers was not statistically significantly different from non-caregivers. The findings indicated that a statistical significant difference did not exist between the group of people providing care for a relative with a psychological illness and the group providing care for a relative with a physical illness.

One reason for the non-significant differences found in anxiety disorders and the substantially lower prevalence rates of depression disorders as compared to other studies lies in the stringent psychiatric measurement used in this study. Some caregivers may suffer from elevated levels of psychological distress but may not meet the threshold for the DSM-IV criteria (APA, 2000). Consequently, a number of caregivers may report higher levels of anxiety or depressive symptoms but may have been excluded from the analysis. As Vitaliano, Young, and Zhang (2006) suggest utilising less stringent psychiatric criteria such as dysthymia disorder may give a more accurate measure of psychological disorders amongst the caregiving population.

Based on the binary logistic regressions, one can conclude that the likelihood of suffering from a depressive or anxiety disorder is significantly increased mainly by providing care for a relative with a psychological illness. Caring for a relative with a psychological illness more than tripled the likelihood of suffering from a depressive disorder. The odds ratio is lower for anxiety when compared to depression disorder; however it is still a substantial increase of 3.5 increments. These findings complement previous research findings. For example, Greenberg, Seltzer, and Greenley's (1993) findings suggested that mothers caring for an adult child with a mental illness suffer higher levels of psychological distress and caregiver burden when compared to mothers of adult children with mental retardation.

These findings support our third hypothesis which states that people providing care for a relative with a psychological illness will suffer higher rates of depressive and anxiety disorders. One possible reason for these increased rates is the precarious nature of a psychological illness. As

Hooker, Manoogian-O'Dell, Monahan, Frazier, and Shifren (2000) postulated, the course of a mental illness is very cyclical and volatile which leaves the family caregiver with a lower sense of mastery over the relatives' behaviour and symptoms. Other contributing factors that may have contributed to these findings are the disruption within the family and social relationships as well as the stigma accompanying a mental illness.

The level of psychological stress experienced by caregivers could be dependent on the type of psychological illness that their relative is experiencing. In order to conduct this analysis, a number of psychological disorders were combined including drug problems and schizophrenia to create the variable caring for a relative with a psychological illness. The variation in distress caused by specific disorders may have confounded the results causing psychological illness to be a significant predictor of anxiety and depression disorder. Future research should explore the impact of specific psychological illnesses on the development of a depressive and anxiety disorder.

The family burden measure of care recipient's type of illness is based on the assumption that each caregiver provides care for a relative with either a psychological or physical illness. For the purposes of the analysis, these variables were assumed to be mutually exclusive, whereas in reality, a care recipient could suffer from both a physical and psychological illness. In this study, approximately 55% of caregivers provided care for a relative with both a psychological and physical illness. Not considering the high correlation between these two variables may have elevated the significant impact that caring for a relative with a psychological illness had on the caregivers' risk of developing a depressive or anxiety disorder. It is interesting to note that although there was a high correlation between anxiety and depression disorders, different patterns were found for each of these disorders. Further analysis should be conducted specifically analysing the group of caregivers providing care to a relative with both a physical and psychological illness.

An alternative explanation for the significant results found in the Binary Logistic Regression may be the influence of genetics and the environment rather than the caregiving task itself. If a relative suffers from a psychological disorder, the caregiver may be more vulnerable to developing a psychological disorder due to their genetic makeup. The environment can have an impact on the development of a psychological disorder, rendering a person more vulnerable to developing a psychological disorder. The caregiver and relative could have shared the environment which would have influenced the likelihood of suffering from an anxiety or depressive disorder.

A number of socio-demographic factors were found to be highly influential to the development of a depressive disorder or anxiety disorder. Carter et al. (2008) reported that caregivers who were married to the care recipient, male, older, and had at least a high school education reported better quality of life and lower psychological distress. Similar to Carter et al. (2008), this study indicated that being older, married, a man, employed irrespective of caregiving task decreased the likelihood of suffering

from a depressive disorder. In accordance with previous research, females had an increased risk of suffering from a depressive disorder in comparison to men (Greenberg et al., 1993; Hooker et al., 2000; Schulz et al., 2009). Previous research has shown that women are nearly twice as likely to suffer from depression as men (Schulz et al., 2009). The reason for these gender differences may have to do with higher competing roles of women in today's society. For example, women are more likely to have to contend with balancing work and looking after children which could increase stress levels and make them more vulnerable to developing depression (Pruchno et al., 1990; Schulz et al., 2009). Women may be more likely to report symptoms of depression where men due to stigma may underreport symptoms or not recognise symptoms of depression (Hooker et al., 2000). Therefore, the gender differences found in this study could be influenced by increased stressors and the reporting of symptoms.

In this study, the impact of age on the occurrence of an anxiety or depressive disorder was in contrast to previous research. Pinquart and Sorenson (2007) found that older people had a higher rate of depression and younger people had higher rates of anxiety. Our study found that that being younger significantly increased the likelihood of suffering from a depressive disorder whereas age was not a significant predictor of suffering from an anxiety disorder. One could surmise that younger people have more pressure and other roles to fulfil rendering them more vulnerable to suffering from an anxiety disorder (Pinquart & Sorenson 2007).

Similar to previous findings of Dew et al. (2004), in this study employment status significantly affected the likelihood of suffering from a depressive disorder. Not being in the labour force increased the likelihood of suffering from a depressive disorder twofold. Dew et al.'s (2004) study indicated that depressive and anxiety related disorders were elevated by unemployment (Dew et al., 2004). Our study did not find that unemployment predicted elevated rates of depressive or anxiety disorders. The sole socio-demographic variable that held significant predictive value for both anxiety and depressive disorders was marital status, more specifically, being divorced, separated, or widowed. People who are divorced, separated, or widowed may be experiencing chronic stressors relating to their marital situation. As a result of the overload of pressures, they may be more vulnerable to developing a psychological disorder (Haley, Lamond, Han, Burton, & Schonwetter, 2003). This premise provides an explanation for the non-significant effect of never being married on the occurrence of depressive and anxiety disorders. Alternatively, the high predictive value of this factor may be due to the additional support that married people obtain from their spouses (Haley et al., 2003).

## Conclusion

Family members providing care to an ill relative are performing a great service not only to their family but also to society as a whole. From an economic perspective, family caregivers save health services billions in hospital costs. The current study provides evidence that people providing

care do so at a great risk to their own psychological health. Utilising previous research findings and the current findings, it is of the utmost importance that health services implement caregiver interventions that are designed to help specific groups of caregivers that are at greater risk of developing a psychological disorder.

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