

THE PREVALENCE OF SUICIDAL IDEATION AND MIXED ANXIETY- DEPRESSION DISORDER (MADD) AMONG CANCER PATIENTS

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ABSTRACT

This article will describe suicidal thoughts in cancer, prevalence rates, risk factors, and will provide clinical model for monitoring and intervention among cancer patients with mixed anxiety-depression disorder (MADD). A total of 187 spouses of cancer patients attending oncology clinics of two hospitals in Tehran, Iran, participated in the research program. Spouses completed the Beck Depression Inventory (BDI), which included Item 9 that asks patients if they have had suicidal thoughts or wishes in some way in the previous 2 weeks. Also, the spouse is given the Automatic Thought Record (ATR) and asked to recall the suicidal thoughts he had together with the situation in which they occurred and the emotion felt. The prevalence of positive responders was calculated. Overall, 11.2% (21 of 187) of spouses were positive responders to Item 9, which indicated that they had suicidal thoughts. The associations of a positive response with the following variables were analyzed by using Multivariate Logistic Regression with the method of stepwise selection: anxiety, depression, mixed anxiety-depression disorder (MADD) and normal spouses. Clinically significant depression ($\beta = -.182$; $P < .05$) and MADD ($\beta = .511$; $P < .05$) were strongly associated with a positive response, and anxiety ($\beta = -.17.62$; $P < .05$) was weakly associated. Findings showed that cognitive declines were associated with suicidal ideation in spouses of cancer patients. Spouses of women with cancer who are depressed or MADD are often stuck in repetitive suicidal thoughts which they cannot re-evaluate. When depression and cancer are combined, suicidal thoughts may be exacerbated.

Key Words: Suicidal Ideation, Mixed Anxiety-Depression Disorder (MADD) and Cancer.

INTRODUCTION:

Transient suicidal ideation are common in spouses of cancer patients throughout the course of cancer and do not usually indicate significant risk of suicide. Although most spouses of cancer patients with suicidal ideation do not ultimately commit suicide, the extent of suicidal thoughts must be determined, including the presence of suicide intent and the patient's means to commit suicide. The most common psychiatric disorders associated with completed suicide are major depression and mixed anxiety-depression disorder. In the general population, the prevalence of people who experience suicidal ideation has been reported as 2% to 25% (Bertolote,

Fleischmann, De, et al 2005; Kessler, Berglund, Borges, et al 2005; Schulberg, Bruce, Lee, et al 2004). Patients who have cancer have been reported to have a higher rate of suicidal ideation than the general population (Druss, Pincus 2000).

Suicidal thoughts and the possibility of suicide are probably common in spouses of women with cancer. When suicidal ideation occurs and becomes severe in spouses who are depressed or those who have negative thoughts and irrational beliefs the likelihood of an underlying significant depression with suicidal potential should be considered.

In a pilot study Askari and Madgaonkar (2010) shows that moderate depression is common and persistent in Indian spouses of cancer patients. Also, in a study by Given and Given (1992), husbands of patients with recurrent breast cancer reported even more depressive symptoms than their wives. However, other studies among couples dealing with breast cancer showed lower levels of distress for the husbands than for the patients (Hoskins, 1995; Northouse, Templin, Mood, Oberst 1998).

Also, Anxiety is common in spouses of cancer patients. The prevalence of probable anxiety among the spouse caregivers is 14.9 % (Askari, Madgaonkar 2010). Therefore, does an anxiety symptom increase risk of suicidal thoughts in spouse caregivers?

A study by Goldney, Fisher, Wilson, et al (2001) of a large sample reported a 2.6% prevalence of positive response to suicide suggests that cancer patients have three times the general population risk of suicidal ideation.

General risk factors for suicide in a person with cancer include the following: A history of mental problems, a family history of suicide, a history of suicide attempts, depression, substance abuse, recent death of a friend or spouse and having little social support.

Previous studies by Beck, Kovacs, Weissman (1975) in a general population have linked hopelessness and suicidal ideation, and Wetzel (1976) showed a stronger association between hopelessness and suicidal intent than depression and suicidal intent.

The combination of depression and cancer can create a variety of stressors that may weaken one's resolve and further debilitate already compromised cognitive systems, which may increase rates of depression, suicidal ideation, and suicide. In fact, cognitive declines themselves have been shown to be associated with suicidal ideation in some clinical populations such as those

with epilepsy (Kalinin, 2007) or early-stage Alzheimer's disease (Lim, Rubin, Coats, & Morris, 2005).

A decline in memory and cognitive (thinking) function is considered by many authorities to be a normal consequence of aging (Craik, Salthouse, 1992; Smith, Petersen, Parisi, et al, 1996). While age-related cognitive decline (ARCD) is therefore not considered a disease, authorities differ on whether ARCD is in part related to Alzheimer's disease and other forms of dementia (Brayne C, Gill C, Paykel ES, et al, 1995) or whether it is a distinct entity (Youngjohn, Larrabee, Crook, 1992; Hänninen, 1996). People with ARCD experience deterioration in memory and learning, attention and concentration, thinking, use of language, and other mental functions (Levy, 1994).

This article will describe suicidal thoughts in cancer, prevalence rates, cognitive decline among spouses, risk factors, and will provide a clinical model for monitoring and intervention.

METHODOLOGY:

Sample:

A total of 187 spouses of cancer patients attending oncology clinics of two hospitals in Tehran, Iran, participated in the research program. Participants were eligible if they were defined as the primary caregiver by a patient with stage breast, lung and colorectal cancer; married to, or in a common law relationship, with this patient; and able to speak and read Persian.

A total of 187 (100%) spouses of cancer patients (all men) 91 (48.7%) spouses were normal and 96 were diagnosed as patients with depression (n=16, 8.6%), anxiety syndromes (n=28, 15.0%) and mixed anxiety-depression disorder (n=29, 15.5%). Spouses with previous history of psychiatric illness or spouses with medical/health problems (n=23, 12.3%) were excluded from the study (Table 1).

Table1. Comparison of the Characteristics of Eligible Patients with different disorders and those with suicide and non-suicide ideation

	Case Processing Summary	N	Marginal Percentage
Groups	Anxiety	28	15.0%
	Depression	16	8.6%
	M.A.D.D	29	15.5%
	Normal	91	48.7%
	Others	23	12.3%
Suicide	Non Suicide	166	88.8%
	Suicide Ideation	21	11.2%
Valid		187	100.0%

Tools:

Beck Depression Inventory (BDI)

Spouses completed the Beck Depression Inventory (BDI), which included Item 9 that asks patients if they have had suicidal thoughts or wishes in some way in the previous 2 weeks. Each of the 21 items is scored from zero to three, which results in a maximum summed score of 63; higher scores represent an increased severity of depression. Item 9 asks, "Suicidal Thoughts or Wishes" Patients may respond with the following answers: "I don't have any thoughts of killing myself" (scoring zero), "I have thoughts of killing myself, but I would not carry them out" (scoring one), "I would like to kill myself" (scoring two) or "I would kill myself if I had the chance" (scoring three). Patients who reported such thoughts for at least several days in this period (i.e., those who scored one or more on Item 9) were labeled positive responders.

Zung Self-Rating Anxiety Scale (SAS)

The Zung Self-Rating Anxiety Scale (SAS) was designed by Zung (1971) to quantify the level of anxiety for patients experiencing anxiety related symptoms. The self-administered test has 20 questions. Each question is scored on a scale of 1-4 (none or a little of the time, some of the time,

good part of the time, most of the time). There are fifteen questions worded towards increasing anxiety levels and five questions worded towards decreasing anxiety levels.

Automatic Thought Record (ATR)

The spouse is given the Automatic Thought Record (ATR) and asked to recall the suicidal thoughts he had together with the situation in which they occurred and the emotion felt. It is best if the spouse collects the thoughts at the time they occurred, but this is not always possible. It may be necessary to set aside 15 minutes every night to write them down.

Demographic Variables Sheet

Demographic and medical data were collected from the spouse, the patient, and from the patient's medical chart. Data included age, sex, education, city of birth, primary language, duration of relationship, employment status, date of cancer diagnosis, and cancer site and stage.

PROCEDURES:

One hundred eighty seven spouses of cancer patients fulfilled the inclusion criteria and were recruited for the study after their informed consent. Their wives were under treatment for cancer and were visiting the surgeon for a check-up. All spouses completed the following self-report questionnaires: Demographic variables sheet, Beck Depression Inventory (BDI), Zung Self-Rating Anxiety scale (SAS) and Automatic Thought Record (ATR).

A clinical interview was conducted with the spouses with a view to get some personal information, which were not obtainable through BDI, SAS. Spouses, after proper rapport, were cross examined for varieties of information particularly pertaining to marital relationship, number of children, perceived attitudes of family members to their wife's illness, financial burden, job position, attributions, and anticipated consequences of their wife's illness.

RESULTS:

The statistical analysis first compared the characteristics of eligible patients who had complete data with those spouses who refused screening or had missing BDI Item 9 data to determine to

what extent the analyzed sample was representative. The prevalence of positive responders was calculated. Overall, 11.2% (21 of 187) of spouses were positive responders to Item 9, which indicated that they had suicidal thoughts (Table 1). Of these, 28.57% (6 of 21) reported "I have thoughts of killing myself, but I would not carry them out"; 57.15% (12 of 21) reported "I would like to kill myself"; and 14.28% (3 of 21) reported "I would kill myself if I had the chance". The associations of a positive response with the following variables were analyzed by using Multivariate Logistic Regression with the method of stepwise selection: anxiety, depression, mixed anxiety-depression disorder (MADD) and normal spouses.

The mean age of spouses with MADD were (M=54.59, Range, 28 - 63, SD= 8.03, N=29). Average number of children of spouses with MADD was (M= 2.5, Range, issueless to more than 5, SD= .881, N=29). The mean age of spouses with anxiety were (M=38.36, Range, 26 - 63, SD= 9.27, N=28). Average number of children was (M= 2.4, Range, issueless to more than 5, SD=1.14, N=28) and the mean age of spouses with depression were (M=53.69, Range, 37 - 61, SD= 6.78, N=16). Average number of children was (M= 1.8, Range, issueless to more than 5, SD=0.71, N=16). Among spouses presented with anxiety, 10.7%, depression 6.2% and MADD 6.8% were illiterate and 13.6% were graduated. No significant interdependence was observed among the observed anxiety, depression and education, performance status of their patient, number of children.

The mean depression score among spouse caregivers on the BDI was 22.4 (SD = 4.5). The mean anxiety score among spouse caregivers on the SAS was 61.2 (SD = 8.5) and the mean mixed anxiety-depression score among spouse caregivers on the BDI and SAS were 22.1 (SD = 4.7) and 59.7 (SD = 8.5).

Clinically significant depression ($\beta = -.182$; $P < .05$) and MADD ($\beta = .511$; $P < .05$) were strongly associated with a positive response, and anxiety ($\beta = -.1762$; $P < .05$) was weakly associated (Table 2).

Table 2. Multivariate Logistic Regression Investigating Associations of Positive Response to Beck Depression Inventory (BDI) - Item 9 with Demographic and Clinical Characteristics

Variable	B	Std. Error	Wald	df	Sig.
Anxiety	-17.62	.307	3284.6	1	.000
Depression	-.182	.606	.091	1	.763
M.A.D.D	.511	.516	.974	1	.323
Normal	-16.44	1518.6	.000	1	.991

When the demographic and clinical variables were considered, clinically significant depression and mixed anxiety-depression symptoms were the only variables associated with a positive response.

Many events may trigger suicidal ideation among spouses of women with cancer. Risk factors for suicide attempts include the following: losing a job (23.8%), financial difficulty (37.2%), experiencing major changes in lifestyle (4.7%), hopelessness (19.6%), and perception of poor social support (8.4%), and spouse's hospitalization (6.3%). A suicide assessment must always be included in the psychiatric evaluation. When depression and cancer are combined, suicidal thoughts may be exacerbated.

CONCLUSIONS:

Findings from the current study suggest a high prevalence of depression in spouse caregivers of patients with advanced cancer. Almost 14.4% of the spouse caregivers reported depressive symptoms in a range that is likely to be clinically significant, a prevalence that is almost two-fold that of their ill partners. These findings are compatible with those of previous studies of spouse caregivers of cancer patients (Pitceathly, Maguire, 2003; Nijboer, Tempelaar, Sanderman, 1998; Baider, Cooper, De-Nour, 2000; Northouse, Mood, Templin, 2000).

In addition, the diagnosis and treatment of cancer in women may provoke various emotional disturbances in their spouses; the feeling of anxiety during investigation period and during the course of treatment is very common among spouses of cancer patients. In our study, 19.4% of

spouses were presented with anxiety. This rate of anxiety is low because most of the patients in our study were not receiving mastectomy and chemotherapy which is thought to be a major source of tension and anxiety in patients and their family members. Also, a total of 17.6% of the spouses reported significant symptoms of mixed anxiety and depression disorders (MADD).

Statistically significant age in depression group ($M=53.69$, $SD= 6.78$) and MADD group ($M=54.59$, $SD= 8.03$) were strongly associated with cognitive decline, and age in anxiety group ($M=38.36$, $SD= 9.27$) was weakly associated. Findings showed that cognitive declines were associated with suicidal ideation in spouses of cancer patients in depression and MADD groups (Table 2). These findings in our study are in agreement with earlier findings of (Craik, Salthouse, 1992; Smith, Petersen, Parisi, et al, 1996; Brayne C, Gill C, Paykel ES, et al, 1995; Levy, 1994). Declines in initiation and executive functioning, when combined with perseveration and ruminative thinking, may further compromise one's cognitive functioning and coping responses. As a result, the individual may become overwhelmed by even the simplest demands and challenges and thus begins a pattern of depression and suicidal ideation. Furthermore, negative states such as loneliness, depression, and anxiety, which are common in cancer patients and their spouses, have been shown to further compromise cognitive abilities.

Our study identifies spouse caregivers of advanced cancer patients as a high-risk population for suicidal ideation and highlights the important role of relational variables in predicting such symptoms. Evaluate the spouse of cancer patient for depression, risk factors for suicide, and contributing psychiatric illnesses or situational stressors. Determine the immediacy of potential suicidal intent. Clinically, there is a need to assist spouses in their new and demanding life. It is also important to be sensitive to the meaning that spouses bring to this role based on their attachment orientation. If a mental health professional is available on site or can be summoned, an urgent consultation is often helpful in making these determinations. If the spouse exhibits active suicidal ideation with a plan, hospitalize the patient immediately, preferably in a psychiatric facility. Although the majority of spouses who report suicidal thoughts will not attempt suicide, further assessment is necessary to identify those who are at high risk of doing so. However, controlled trials in spouses with suicide ideation and cognitive decline are needed to confirm these observations. Psychological counseling and training to assess thoughts have

produced improvements in cognitive function in spouses of cancer patients with age-related cognitive decline.

ACKNOWLEDGMENT:

This article is culmination of a combined effort that has involved an assorted array of our teachers. We are indebted to Prof. Jyoti. S. Madgaonkar at University of Mysore, India for her advice, enthusiasm, and patience, to Dr. Kevin Rowell at Central Arkansas University, USA for his support for the project.

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