Assessing Death Anxiety and its Correlates Among Severe Medically Ill in- Patients

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Abstract

Introduction: In spite of the certainty of reality of death, people seem unable to escape anxiety at the prospect of them. Death anxiety contributes to important emotional and behavioral consequences. The aim of this study is to investigate relation of death anxiety with variable such as severity of illness, depression and religious belief

Method: The study is a cross-sectional, descriptive study. Data were collected using demographic questionnaire, templar death anxiety scale, beck depression questionnaire, cumulative illness rating scale and religious attitude questionnaire. The co relational and regression analysis were conducted to identify the factors that correlate and predict the level of death anxiety respectively.

Result: A group of hundred and fifty persons including 50 severely ill patients, 50 relative caregivers and 50 normal healthy controls completed the questionnaires. Death anxiety score was 7.2 relatives, 5.3 in patients and 4.4 in control group. Depression and severity of illness had positive correlation with death anxiety in medical patients (P < 0.05), in addition to that religious belief had negative correlation with death anxiety (P < 0.05) and was the strongest protective factor for death anxiety in patients group. In relatives and controls depression predicted more death anxiety.

Conclusion: individuals suffering from Sever medical illnesses do not inevitably experience more death anxiety. Discussing to the relative the fact, the low death anxiety in their relative patients, will preserve the right of patients to make rational decision about their treatment and life. In presence of death anxiety early detection and management of depression could reduce death anxiety.

Key words: Death anxiety; Severe Medical Patients; Correlates
1. Introduction

Death is an inevitable part of all living organism and death anxiety comes from being aware of our mortality. Death anxiety (DA) was defined as a negative feeling a person experiences about death and dying. (1, 2) When threat to life is inevitable, the patient can experience extreme psychological suffering. (3) Dopela defined two subtypes of death anxiety: fear of death and fear of dying process. (4) Twelker believed DA reaches a peak in middle age and reduce in late life. (5) One who is dying is like a passenger who have to leave all his possession behind. Several studies have explored the association of DA to various variables to detect possible correlation and predictors of DA. The factors have studied in relation to death anxiety have been: age, sex, level of religiosity, severity of illness, personality traits, spirituality and depression. (6-11) In vargo and Black study, internality was associated with less fear of death and dying on the other hand externality was related to higher level of fear of dying. (9)

Another variable has been investigated in previous studies is the level of psychosocial development. Finding from these studies revealed a negative relationship between psychosocial maturity and DA. (12, 13)

Several research offers evidence that certain belief could reduce death anxiety. Meanwhile, Studies on correlation between religiosity and death anxiety have been inconsistent. (1, 8, 14, 15) Studies reports that death anxiety contributes to important emotional and behavioral consequences especially in patients with end stage illness. These patients may feel nervousness and fear resulting from an expectation of death and, at the same time, a feeling of frustration in not reaching goals. (1, 16) On the other hand Psychiatric disorders like, depression, PTSD and panic disorder might associate with more death anxiety. (17) sometimes the relatives' believes in the presence of death anxiety in their elderly or medically ill relatives may impair the patients' ability to make decision which might be against ethics. Sinoff et.al in a study nted that children overestimate the level of DA among their elderly parents. While their elderly parents presented less DA than their middle aged children. (18)

At the best of our knowledge, few researches has investigated the level of death anxiety and its correlates among medical patients suffering from severe stage of their diseases. In Gular and colleague study on mothers of children with HIV, higher level of DA was detected among them than their controls. In this population depression was a direct correlate to their anxiety. (19) In two separate study in Iran, the level of DA explored in a group of hospital and nursing staff. None of these studies employed a control group. (20, 21)

We conducted this study to further elucidate the level of death anxiety and its correlates among severe stage medical inpatients population. The hypothesis of current study was that the level of death anxiety would be higher in severely ill inpatients than their relatives and controls.

2. Method

In a cross section simple convenient sampling study 180 subjects including severely ill inpatients, their relative career and healthy non relative controls were screened. patients were recruited from internal medicine and general surgery wards in tertiary teaching hospitals affiliated to Shiraz University of Medical Sciences in Iran. The relative defined as one of the 1st relative who was involved in the care of patients and control group were selected from general population. Subjects were included if they were in severe stage of current disease that they were hospitalized for and not being so frail to cooperate. After expla-
nation the aim of study, 30 subjects were excluded because of disagree to participate and too frail to cooperate. Finally one hundred and fifty participants consisted of 50 severely ill patients, 50 relatives career and fifty healthy non relative controls were selected. Participants completed a demographic questionnaire, Templer death anxiety scale, beck depression questionnaire, and religiosity questionnaire. Moreover the cumulative illness rating scale (CIRS) was employed to detect the severity of current disease and overall burden of medical conditions as well.

Templer Death Anxiety Scale is a 15 items questionnaire, each requiring a rating of the participant’s degree of agreement/disagreement on a 5-point scale (with anchors 1 = strongly disagree to 5 = strongly agree). Items are summed to achieve a total scale score for death anxiety; thus, the higher the score on the overall scale shows the greater the level of death anxiety.\(^{22}\)

The beck depression scale is a 21-question multiple choice self report inventory which is a wide world instruments for measuring the severity of depressive symptoms.\(^{23}\)

Cumulative Illness Rating Scale

One of the existing tools used to measure multi morbidity is the Cumulative Illness Rating Scale (CIRS), which considers all medical problems encountered in primary care. In the original version developed by Linn et al, the weight of co-occurring medical conditions was weighted from 0 to 4 for the 13 main systems.\(^{24}\) A number of studies have documented good inter rater reliability of the CIRS, with correlation coefficients ranging from 0.55 to 0.91.\(^{25}\)

The Religious Attitude Questionnaire

The Religious Attitude Questionnaire (RAQ) is a self-report 40-item instrument with each item rated on a five-Likert-point scale. The reliability and validity of this instrument among Farsi Muslim college students has been established.\(^{26}\)

Data analysis was done using SPSS software version 15. Non numerical data were compared by chi-square test. For analyzing numerical data like age, illness severity, depression, religious belief and death anxiety we used independent T-test and ANOVA. Multiple regression analysis and Spearman’s correlation coefficient was used to detect relation between non numerical data as depression, somatic illness, age and death anxiety.

3. Result

The study sample included 70 (46.7%) male an 80 (53.3%) female with mean age of 47.7 (SD ± 14.9). Participants were divided in 3 groups of 50 subjects matched for age and sex. In one way analyses of variance, there was significant difference in the level of death anxiety score among three groups. Relative of patients had the highest level of anxiety and control group reported the lowest level of death anxiety. (See figure 1)

Insert fig 1 here.

Further correlational analyses were employed to explore the correlation of age, religiosity, depressive symptoms, and burden of medical conditions to the level of death anxiety score. Moreover, to compare the level of death anxiety between male and female participants independent t test was used.

In correlational analyses on medical patients, burden of medical conditions (r = 0.703, P = 0.001), depressive symptoms (r = 0.877, P = 0.001) were positively and religious belief (r = -0.823, P = 0.001) was negatively associated with death anxiety score. But age was not associated with death anxiety score (P = 0.339). In addition to that, there was no significant difference in the level of death anxiety between male and female severely ill patients (P = 0.06).

In correlational analyses on data from relatives showed that depressive symptoms (r = 0.881, P = 0.001), burden of medical condition in their relative pa-
tients \((r = 0.691, \ P = 0.001)\) were positively and religious belief was negatively \((r = -0.679, \ P = 0.001)\) associated to death anxiety score. But there was no significant correlation between death anxiety and age in this group \((P = 0.06)\) and sex \((P = 0.122)\).

In control group, the level of death anxiety score was positively associated with depressive symptoms \((r = 0.906, \ P < 0.001)\). And religious belief was negatively associated with death anxiety score \((r = 0.425, \ P < 0.001)\). Same as previous groups, in this group there was not detected any association between age and sex to death anxiety score.

To detect the predictability power of these three variables for death anxiety linear regression analyses was undertaken. In patient group, the religious belief was the strongest predictor for the level of death anxiety so that subjects with lower religious attitude experienced higher level of death anxiety. \((\beta = -0.414, \ P = 0.001)\). In relatives depressive symptoms was more predictor for death anxiety \((\beta = 0.711, \ P = 0.001)\). Likewise depressive symptoms was the most powerful factors for death anxiety \((\beta = 0.811, \ P = 0.001)\).

Findings from current results revealed that the level of death anxiety in severe medical patients was positively correlated to burden of physical illnesses and depressive symptoms, whereas the religious belief was negatively associated with the level of death anxiety score. In all three groups, depressive symptoms were positively and religious belief was negatively associated with death anxiety.

**Diagram:** 4-2- The Mean of Death Anxiety Score

**4. Discussion:**

Results from current study did not support the hypotheses that level of death anxiety is higher among severely ill patients. It seems that the relatives were more affected than their relative patients. It is in line with previous studies reporting higher level of death anxiety in children than their inpatient parents. \((18)\) It might be due to desire of healthy people to continue life whereas the severely ill patients tend to realize the limit of life.
The relative may project their fear of death on to their relative patients. It could explain the why relative of patients in severe stage of diseases are reluctant to give information from the physician to the patients which is against patients right. Discussing to the relative the fact, the low death anxiety in their relative patients, will preserve the right of patients to make rational decision about their treatment and life.

In current study there was no significant association between age and level of death anxiety in all participants. This findings is in line with findings from studies done in Iranian population.(20, 21) In contrast sinoff and rosak reported a negative correlation between age and death anxiety.(10, 27) it seems the correlation of age to death anxiety is still remained as a matter of controversy. Although Data analyses on sex in current study revealed a weak association between death anxiety and sex, meanwhile the results replicated findings from previous studies reporting higher death anxiety among female than male.(6, 21, 28, 29) All findings could be explained by the fact that anxiety is higher in female population than male.

Current study replicated findings that support the idea that religious belief could reduce death anxiety. Although some previous studies reported religious belief as a protective role for death anxiety (1, 8, 27) studies recruiting Buddhist and Hindu participants did not reported any correlation between religiosity and death anxiety.(28) Moreover, in a quantitative review of 49 studies Fortner and colleagues failed to find relationship between death anxiety and religiosity. This discrepancy could be due to measures used in various studies. While the broader literature suggests that religious belief as a predictor for death anxiety, studies employing measures investigating religious behaviors like church attendance and frequency of Hooy book study did not support the association between religious behavior and death anxiety. In contrast to findings from Fortner and colleague review, in our study physical problems even in presence of severe illnesses did not predict higher level of death anxiety.(12)

While broader studies suggested higher level of death anxiety in female individuals than males, in current study consisting with results from Fortner's review gender was not a reliable predictor of death anxiety.(6, 30)

Another predictor factor for death anxiety among all three groups in present study was depressive symptoms which are in line with earlier studies reporting psychological problems as predictor for death anxiety. The weakness of current study is that the psychological problems only limited to depressive symptoms and other psychological problems such as panic disorder and PTSD were not addressed. In sum, findings from study does not support the hypothesis that that death anxiety is higher in individuals suffering from severe medical. Nevertheless, in the presence of death anxiety depressive symptoms should be considered as a possible confounding factor.

Conflict of interest: not known

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