

## Gender Disparity in Death Rumination and Defence Styles: Sample Study Hospitalized Cancer Patients

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### Abstract

**Introduction:** Cancer and the stress associated with it have a significant impact on not only public health, but also on individuals suffering from cancer can make stressful and pressure conditions for patients. The aim of this study was to examine the role of gender and death rumination among patients with cancer.

**Methods:** The study was done using death rumination questionnaire and defence styles questionnaire-60 (DSQ-60). The study was conducted on 200 hospitalized cancer patients. MANOVA test using SPSS was utilized for data analysis. .

**Results:** According to gender disparity, patients suffering from cancer had high scores in death-exhaust as death rumination. Statistically significant results emerged also on projection ( $p < 0.05$ ), projective identification ( $p < 0.01$ ), and withdrawal ( $p < 0.05$ ) from defence mechanisms. In particular, it was found that female cancer patients were more likely to engage in death-exhaust, projection, projective identification, and withdrawal styles.

**Conclusion:** Overall, this report codifies the gender disparity in death rumination and defence styles in hospitalized cancer patients with psychological adjustment in women with cancer, suggesting that these might be potential targets of psychological intervention for this population.

**Declaration of Interest:** None

**Key words:** Gender difference, Cancer, Death rumination, Defence styles.

## Introduction

Cancer and the many chronic illnesses associated with cancer can have a significant impact on individual's mental health, life expectancy due to premature deaths, financial burden associated with treatment all may have a significant impact on individuals with cancer. (1). Furthermore, cancer patients who have been hospitalized for mental health problems prior to their cancer diagnosis were 73% more likely to die from their cancer compared to those who had never had psychiatric issues (2). All of cancer conditions make negative mood and thinking about death in patients so these conditions can lead them to be vulnerable against death rumination, which is self-reflection of death thinking. Rumination is associated with the neural and genetic state (3). Rumination mode is a response to distress that means the person focus on the symptoms of distress repetitively and passively (4). Negative thinking about cancer drives patients to death rumination and negative moods. In fact, researchers have found that women are much more likely to have ruminative thoughts (5). Perseveration in dwelling these negative thoughts about loss and harm can lead to depressive symptoms (6).

In particular, cancer patients need to protect themselves from a painful situation, both at the physical and psychological levels of disease conditions, their potential adaptation is about the defence mechanisms that they are likely to erect to face their disease (7). The role of defence mechanisms in cancer progression and adaptation have been largely important while mental inhibition defences observed (8). Ego defence mechanisms as response of distress and cancer diagnosis condition in patients, although advance adaptive defence mechanisms must be modified for dissonance behavior-treatment in cancer patients (9). Although, immature defence may have

advantages in the regression-inducing inpatient background, but passive aggressive behavior seems to be less adaptive, especially in combination with higher level defences it may lose the regressive demands of the situation (10). Recently, Studies has shown that men and women differ in their use of defence mechanisms (11).

In this study, we aim to look into estimated gender disparity in term of death rumination mode and defence styles scores on hospitalization cancer patients.

## METHODS

This present study analyzed the gender disparity in the death rumination mode and defence mechanisms of women (N=118) compared with men cancer patients (N=82). Participants were recruited from the Oncology Department at Imam Ali Hospital, in Zahedan, Iran. Inclusion criteria consisted of having received a formal diagnosis of cancer within the past 2 months, 18 years old or older, no previous history of psychiatric disorders and/or intellectual disabilities. The average age was 44.74 years (M= 44.74 and SD = 19.94).

Informed consent was obtained from each participant during the psychological diagnostic interview. After each interview, a consensus rating, was used for data analysis, was derived from death and defence mechanisms assessments. Demographic information was provided by the patient, however, only age and gender were considered for the analysis of the current study.

## Measurement

Two questionnaires including death rumination questionnaire and defence style questionnaire were used in this study.

**Death rumination questionnaire:** The DRQ-13 is derived from previous versions of the instrument and underwent a test of face validity with four psychodynamic trained professionals. The DRQ-13 is aimed to measure the conscious derivatives of 3 death rumination styles. These included death-concentration, death-critical, and death-exhaust. Participants answered each of the 13 items on a 5 -point Likert scale with anchors of one (not at all applicable to me) and five (completely applicable to me). Scores for two factors were calculated by taking the mean of the three items and scores for one factor calculated by taking the mean of four items, representing the death rumination. Cronbach's alpha coefficient for death rumination questionnaire was (0.83) (12).

**Defence styles questionnaire (DSQ-60):** The DSQ-60 is purported to measure the conscious derivatives of 30 defence mechanisms, with two items per defence. The defence mechanisms assessed are acting-out, affiliation, altruism, anticipation, denial, devaluation of self, devaluation of others, displacement, dissociation, fantasy, help-rejecting complaining, humour, idealization, intellectualization, isolation, omnipotence, passive-aggressive, projection, projective identification, rationalization, reaction formation, repression, self-assertion, self-observation, splitting of self, splitting of other, sublimation, suppression, undoing, and withdrawal.

Respondents answered each of the 60 items on a 9- point Likert scale with anchors of one (not at all applicable to me) and nine (completely applicable to me). Scores for each defence are calculated by taking the mean of the two items representing the defence. Style scores are

derived by taking the mean of the items belonging to each factor scale. Cronbach's coefficient alpha for all components was reported 0.68. (13).

Interviews were coded by two independent raters previously trained on the death rumination and defence styles questionnaires. For each interview raters reached a consensus rating, which was used for statistical analyses. The data were examined for multivariate outliers and multicollinearity of scales. Gender was considering with frequency statistics and multivariate test assessment both gender with 3 kinds of death rumination and 30 styles of defence, furthermore, all statistical tests were done to determine any significant difference at 5% level.

## RESULTS

Presents characteristics of the study sample, broken down by gender and receipt surgery, chemotherapy and radiology care. Of the total sample (N=200), 60.2% percent of patients were female, 39.8% were male the mean age reported 44.47 (SD = 17.4), 38% were Leukemia, 26% were Lymphoma, 55% were Stomach, and 57% had Lung & Brunch. Table 1 shows the analysis of mean differences between female and male samples of cancer patients. According to gender disparity, cancer patients' score on Death-Exhaust ( $p < 0.05$ ), as death rumination. Statistically significant results emerged also on three defence mechanisms of Projection ( $p < 0.05$ ), Projective ( $p < 0.01$ ), and Withdrawal ( $p < 0.05$ ). In particular, we found that female cancer patients were more likely to use Death-Exhaust ( $M = 23.89$ ;  $SD = 1.84$ ), Projection ( $M = 6.31$ ;  $SD = 1.12$ ), Projective ( $M = 6.31$ ;  $SD = 1.12$ ), and Withdrawal ( $M = 8.00$ ;  $SD = 0.89$ ).

Table 1: Descriptive statistics for both genders in death rumination and defence styles

	Female		male	
	M	SD	M	SD
Death-Exhaust	23.89	1.84	23.32	2.07
Projection	9.3004	3.29	8.23	3.19
Projective	12.62	2.02	11.76	2.34
Withdrawal	12.97	2.48	12.16	3.07

Multivariate analysis was found that there was a statistically significant difference between both gender disparity in patients with death rumination and defence styles,  $F(33, 166) = 1.544$ ,  $p=0.014$ ; Wilks' Lambda=0.765; partial eta squared= 0.235. [table. 2]

when the results for dependent variables were considered separately, the disparity to reach statistical significance, using Bonferroni adjusted alpha level 0.01, was Death-Exhaust,

$F(1, 200)=4.188$ ,  $p=0.042$ , Bonferroni adjusted alpha level 0.021, was Projection,  $F(1, 200)=5.172$ ,  $p=.024$ , Bonferroni adjusted alpha level .033, was Projective,  $F(1, 200)= 7.698$ ,  $p=.006$ , and Bonferroni adjusted alpha level 0.016, was Withdrawal,  $F(1, 200)= 4.221$ ,  $p=0.041$ . Projective was in 99% confidence interval. The Death-Exhaust, Projection and Withdrawal were in 95% confidence interval [table. 3]

Table 2: Gender disparity cancer in death rumination and employed psychological defence styles

Wilks' Lambda Value	F	P Value	Partial Eta Square
0.765	1.544	0.041	0.235

Table 3: Gender disparity cancer related to factors of death rumination and defence styles

Factors	F	P Value	Partial Eta Square
Death-exhaust	4.188	0.042	0.021
Projection	5.172	0.024	0.025
Projective	7.698	0.006	0.037
Withdrawal	4.221	0.041	0.021

## DISCUSSION

Present research indicated that female was peak of incidence rate in hospitalization cancer patients. The main reasons were, neutropenia

due to the combination regimen of platinum plus gemcitabine or (14) the monotherapy of gemcitabine or amrubicin is reported to be more frequent in females than males (15). Gender-specific cancers seen in the significantly bias gender studies of cancer-related symptoms, gender differences are best assessed in gender-neutral primaries (16, 17). In addition, there was differences in diagnostics on the gender-specific, treatment and outcome of lung cancer (18). It is important to employ designing and analysing the results from clinical studies of cancer based on gender differences (19). Gender differences seems to be a significant factor influencing survival rates among colorectal cancer patients (20). In contrast, another research indicated that women had better survival rate than men; however, there was no survival advantage in propensity-matched gender pairs, gender difference in survival was observed only in the adenocarcinoma subset, then pathobiology in adenocarcinoma in women might be different from the men (21).

Results of the current study have indicated that females ruminate more than males hence death rumination is response of distress and death thinking that made by cancer diseases (22) then negative feeling lead to death rumination especially death focus on treatment situation. There were synergistic effects of rumination and negative emotion (23). Also, death rumination is hopeless and grief response in patients that is related with part of brain and mental health (24). Actually death rumination is responses of anxiety and depression mood that helps patient to handle dissonance state and problem solving in cancer conditions. Other study implicated rumination is as a mechanism of stress sensitivity which it may maintain depression and anxiety in everyday life (25). Oncologist diagnosis induce stressful and depression mood then patient employ death

rumination, this is potentially useful targets that is preventing the onset of depression and anxiety (26). Furthermore, Study shows the mediational effects of adaptive and maladaptive rumination in the relationship between illness perception and negative emotions (27).

Patients with oncologist diagnosis whereas suffer from death rumination, patients persuade to using psychological defence styles due to patients adaptive with problem in conflict condition. We found females employ defence style more than male cancer patients. In addition other research argued, women report significantly more use of defence mechanisms than men (28). Women with breast cancer have difficulty in emotional regulation and defence mechanisms and need to psychological intervention (29). Research confirmed patients with cancer strongly use defence mechanisms, and psychological distress (30). Moreover, an interaction between defence and distress was found to predict hospitalization. Psychological defence styles improved by following dissonance experience because they lead to learn professional capacity and knowledge against error event (31). Therefore, mechanisms defined as unconscious process, cognitive operations alter by developmental periods for protective function (32). Individuals can promotion behavior in certain situation, patients need to adaptive with treatment condition (33). Defence mechanisms were general acceptable regulation in patient populations then, clinicians can most effectively target defences in psychotherapy (34).

There are differences in defence and coping mechanisms between subjects with cancer compared to the non-clinical group, it may be that defence and coping mechanisms can be optimized through psychotherapy

interventions to increase quality of life for cancer patients (12). Overall, this report codifies the gender disparity in death rumination and defence styles in hospitalized cancer patients with psychological adjustment in women cancer patients, suggesting that these might be potential targets of psychological intervention for this population.

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