RESEARCH PAPER

Exploring the relationship between death anxiety and mental well-being in patients with gastric cancer

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ABSTRACT

Background:

Gastric cancer is undoubtedly linked with serious physical suffering and a lot of psychological distress, especially when patients are very worried about death and the dying process. Death anxiety can have a negative impact on one's mental well-being; however, there is very little hypothetical work done in Indian oncology contexts to support this statement. The current research was conducted with the purpose of evaluating death anxiety and mental well-being in patients with gastric cancer in Punjab as well as exploring their relationships with perceived social support.

Methods:

A cross-sectional design was implemented in the study that involved 160 adult patients (male 80, female 80) who were diagnosed with gastric cancer and were either samples from tertiary oncology centres of Punjab or were recruited through consecutive sampling. Death anxiety (Death Anxiety Scale), mental well-being (Warwick Edinburgh Mental Well-being Scale), and perceived social support (Multidimensional Scale of Perceived Social Support) were measured using standardised self-report instruments. Descriptive statistics and Pearson's product moment correlation were used to analyse the data.

Results:

The participants experienced a moderate amount of death anxiety ($M = 8.40$, $SD = 3.10$) and mental well-being ($M = 44.30$, $SD = 9.80$), while they perceived to have a moderate to high social support ($M = 55.20$, $SD = 11.60$). Death anxiety was found to be significantly negatively related to mental well-being ($r = -0.48$, $p < .01$). The perceived social support had a statistically significant positive correlation with mental well-being ($r = 0.52$, $p < .01$) and was also significantly negatively correlated with death anxiety ($r = -0.36$, $p < .01$).

Conclusion:

The results show that death anxiety goes up when mental well-being goes down in gastric cancer patients, whereas those perceiving more social support have better psychological functioning. These findings reveal the need for psycho-oncology care in Indian oncology settings to include both an evaluation of death-related distress and the strengthening of social support systems.

Keywords: Death anxiety; Mental well-being; Gastric cancer; Social support; Psycho-oncology; India

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INTRODUCTION

Huge regional variations in incidence rates, stage at diagnosis, and availability of oncology services have been observed across different parts of India. Besides its physical toll, gastric cancer also causes significant psychological difficulties. The fact that the life is at risk, the unpredictability of prognosis, major treatments, and changes in social and work life, all these factors together increase the susceptibility to psychological distress. Out of all these issues, fear of death and the dying process is a primary aspect of the psychological experience in cancer patients which is often overlooked.

Death anxiety is a term used for the emotional distress, fear, or apprehension caused by one's own death or the dying process (Templer, 1970). For cancer patients, the possibility of death is no longer something distant and abstract, but immediate and tangible, thus heightening their existential concerns. From the viewpoint of Terror Management Theory (TMT), the knowledge of one's mortality elicits existential anxiety, which people try to alleviate through the construction of meaning, adherence to cultural worldviews, and social bonds. If these protective layers happen to be damaged such as in case of a serious illness death anxiety may escalate, thereby jeopardizing psychological well, being. Likewise, existential psychology claims that facing ones mortality is a core human issue, and failure to come to terms with death awareness may lead to psychological distress and lessened quality of life.

Empirical research in psycho-oncology has demonstrated that elevated death anxiety is associated with poorer mental health outcomes, reduced quality of life, and diminished psychological functioning among cancer patients. However, most studies have focused broadly on mixed cancer populations or on general anxiety and depressive symptoms, rather than examining death anxiety as a distinct construct. Furthermore, limited research has specifically investigated the relationship between death anxiety and positive indicators of mental well-being, particularly within culturally diverse and resource-variable settings.

Perceived social support is an essential psychosocial resource in managing a life, threatening illness. The stress, buffering model explains that social support can lessen the negative psychological impacts of stress by offering emotional reassurance, practical help, and a sense of belonging. For a life, threatening disease, social support can be the protective factor that (1) lowers death, related worries and (2) facilitates positive psychological adjustment. Different international studies have revealed correlations between social support and better psychological outcomes for cancer patients. However, very few studies in Indian oncology contexts have explored social support in relation to death anxiety and mental well, being.

At a glance, there has been almost no research conducted on death anxiety in gastric cancer patients in Punjab. Indian, based works, for the most part, have centered on depression, general anxiety, or quality of life on a mixed, cancer sample, whereas very little focus has been given to the identification of existential distress as a separate psychological area. Thus, (1) the population aspect, since there are no studies focused on gastric cancer; (2) the variable aspect, as research on death anxiety and positive mental well, being is quite scant; and (3) the regional aspect, which shows a lack of empirical evidence at the state level from Punjab even though it carries a high cancer load.

With these gaps in mind, the current research aimed to evaluate the extent of death anxiety and mental well, being in people with gastric cancer in Punjab and to investigate their relationships with perceived social support. Placing death anxiety in an existential and terror management theoretical frameworks while directing focus on a regionally underrepresented population, the authors intend the evidence provided by this inquiry to serve as a contextually grounded basis for psychosocial assessment and supportive care interventions in Indian oncology clinics.

OBJECTIVES

The present study was undertaken with a view to achieving the following objectives:

1. To find out the extent of death anxiety in patients diagnosed with gastric cancer in Punjab.
2. To assess mental well, being among gastric cancer patients across various demographic and clinical variables.
3. To investigate the connection between death anxiety and mental well, being among gastric cancer patients.
4. To investigate the contributory role of perceived social support in relation to death anxiety and mental well, being among gastric cancer patients.

HYPOTHESES

1. There will be a significant negative correlation between death anxiety and mental well, being among gastric cancer patients.
2. There will be a significant positive correlation between perceived social support and mental well, being among gastric cancer patients.
3. There will be a significant negative correlation between perceived social support and death anxiety among gastric cancer patients.
4. There will be significant differences in death anxiety and mental well, being between the groups defined by the selected demographic and clinical variables.

SAMPLE

To limit gender, related bias, the sample was equally divided with 80 male and 80 female participants. The participants were chosen through a consecutive sampling technique, which considered their availability and eligibility for the study during the period of data collection.

The inclusion criteria consisted of adults aged 18 years and over, with a histologically confirmed diagnosis of gastric cancer of any stage, who were clinically stable, able to give informed consent, and capable of completing the questionnaires in English, Hindi, or Punjabi. The patients who were severely cognitively impaired, medically unstable acutely, or had active psychotic symptoms that could interfere with the participation, were excluded from the study.

PROCEDURE

A cross, sectional observational design was the framework for this study.

Through routine screening of outpatient clinic rosters at the respective oncology centres, eligible participants were identified. Following the initial identification, potential participants were approached individually in a private setting by a trained research assistant. The study purpose and procedures were explained and written informed consent was obtained prior to data collection.

Participants were given two options: they could either fill the questionnaires on their own or complete the ones that are via interviewer, assisted administration if they require the latter. Data were collected by using paper, based forms or secure electronic tablets and then entered into a de, identified, password, protected database.

Each participant was required to spend around 20-25 minutes in completing the assessment battery.

Sampling

Participants were recruited from tertiary oncology departments in Punjab by pretty much consecutive sampling during the data collection time. Every patient who was eligible fit the inclusion criteria, agreed to the study, and was willing to participate without any further selection was included for the study until the collection of the sample size was complete. The final sample contained 160 adult patients of gastric cancer.

The sample size adequacy was judged not only by the statistical power point of view but also based on the precedent of psycho, oncology research. An a priori power estimation for correlational analysis (medium effect size r = .30, = .05, power = .80) indicates a minimum required sample of approximately 84 participants. The present sample size (N = 160) substantially exceeds this requirement, thereby ensuring adequate statistical power to detect moderate associations among study variables. Additionally, previous research works exploring psychological factors in oncology settings have used the same or even smaller, sized samples to justify the present sample's methodological adequacy.

MEASURES

1. Death Anxiety

Death anxiety was measured with the Death Anxiety Scale (DAS), which was created by Templer (1970). The DAS is made up of 15 dichotomous items (True/False) that measure terror, uneasiness, and other emotional reactions to death and dying. Scoring of each item is either 0 or 1, and hence the sum scores can go from 0 to 15. A score on the high end of the range reflects a person having a very high level of anxiety towards death. However, the scale itself does not have any clinical cut, off points, so generally, a high total score is taken to mean a person is suffering moderately or highly from death, related distress. In the current sample, the Death Anxiety Scale had a good level of reliability according to Cronbach's alpha (.78).

2. Mental Well-Being

The Warwick Edinburgh Mental Well, being Scale (WEMWBS) (Tennant et al.,

2007) was used for the assessment of mental well, being.

The WEMWBS has 14 positively phrased questions that focus on positive feelings, mental health, and social aspects. The questions are answered on a 5, point Likert scale from 1 (None of the time) to 5 (All of the time). The sum of all the answers can be from 14 to 70, and the higher the score, the higher the level of mental well, being. The scale itself doesn't have firm diagnostic cut, offs. Still, low scores generally indicate an individual is less psychologically functional. The measure showed great internal consistency in this study (= .89).

3. Perceived Social Support

To measure perceived social support, the researchers used the Multidimensional Scale of Perceived Social Support (MSPSS) by Zimet et al. (1988). The MSPSS consists of 12 items that identify the level of support perceived from three different sources: family, friends, and significant others. Each item can be rated on a 7, point Likert scale from 1 (Very strongly disagree) to 7 (Very strongly agree). The total scores can vary from 12 to 84, where the higher the score, the more is the perceived social support. Also, the scores can be interpreted in categories of low, moderate, and high support according to the mean score interpretation guidelines. In this study, the MSPSS showed excellent reliability (= .91).

ETHICAL CONSIDERATIONS

Ethical approval to carry out the study was obtained from the Institutional Ethics Committee (IEC) of the tertiary oncology centre that was involved, before data collection started (IEC Approval No.: IEC/2024/ONC/017; Approval Year: 2024).

The study adhered to the ethical principles in the Declaration of Helsinki. All participants gave their written informed consent after they were simply and clearly explained in a language they understood (English, Hindi, or Punjabi) the purpose, procedures, potential risks, and the voluntary nature of participation. It was made clear to participants that if they refused to take part in the study, or if they decided to withdraw at any stage, it would not in any way affect the medical treatment they were receiving. Strict confidentiality and anonymity were preserved throughout the study by assigning a unique identification code to each participant and keeping the data in a password, protected database that was only accessible to the research team. The analysis and the reporting of the results did not contain any personally identifiable information. Participants who were found

to be in a high state of psychological distress or who disclosed suicidal thoughts during data collection were, as per institutional clinical protocols, referred for psychiatric or palliative care services.

RESULT

Demographics

Sample size

160 respondents with equal number of males and females to avoid any bias.
Age distribution

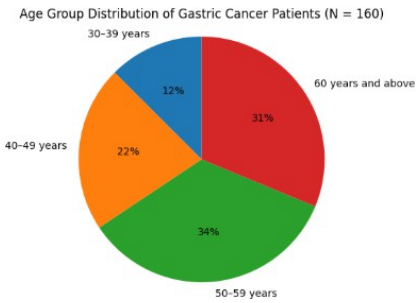


Table 1: Demographic Table

Variable	Category	n	%
Gender	Male	80	50.0
	Female	80	50.0
Age Group	18–35 years	20	12.5
	36–50 years	48	30.0
	51–65 years	62	38.8
	Above 65 years	30	18.7
Marital Status	Married	120	75.0
	Unmarried	16	10.0
	Widowed/Separated	24	15.0
Cancer Stage	Stage I	16	10.0
	Stage II	34	21.3
	Stage III	60	37.5
	Stage IV	50	31.2
Treatment Status	Undergoing treatment	104	65.0

	Post-treatment follow-up	56	35.0

The sample consisted of 160 gastric cancer patients, with gender evenly split between males and females (50% each). Most participants were in the age bracket of 5165 years (38.8%) and were married (75.0%), which is consistent with the demographic characteristics of gastric cancer patients in tertiary hospitals. On the clinical side, a large portion of the sample was at Stage III or Stage IV when diagnosed with gastric cancer (68.7%), and a good number of them were going for treatment at the time of study (65.0%), thus representing mostly an advanced, stage, treatment, engaged cohort.

Reliability Analysis

Internal consistency reliability was measured through Cronbach's alpha coefficients. In this study, the Death Anxiety Scale (DAS) had an acceptable level of internal consistency (= .81). The Warwick Edinburgh Mental Well, being Scale (WEMWBS) showed a very good level of internal consistency (= .90). The Multidimensional Scale of Perceived Social Support (MSPSS) also revealed a high internal consistency level (= .92).

Data Analysis

Statistical Package for Social Sciences (SPSS) was used to analyse the data obtained. A set of musical statistics was generated to depict the degree of death anxiety, mental well, being, and perceived social support in gastric cancer patients. The relationships between the variables under study were explored using Pearsons product moment correlation coefficient. Two, tailed tests were used for all statistical analyses, and the significance level used in these analyses was .05.

Descriptive Statistics

Descriptive statistics for death anxiety, mental well-being, and perceived social support among gastric cancer patients are presented in **Table 1**.

Table 2: Descriptive Statistics of Study Variables (N = 160)

Variable	**Possible Range**	**Mean**	**Standard Deviation**
Death Anxiety (DAS)	0–15	8.40	3.10
Mental Well-Being (WEMWBS)	14–70	44.30	9.80

Perceived Social Support (MSPSS)	12–84	55.20	11.60

The results indicate that participants reported **moderate levels of death anxiety**, reflecting the presence of death-related concerns among patients living with gastric cancer. Mental well-being scores suggest **reduced positive psychological functioning**, which is consistent with the psychological burden associated with cancer diagnosis and treatment. Perceived social support scores were found to be in the **moderate to high range**, indicating that many participants perceived meaningful support from family, friends, and significant others.

Correlation Analysis

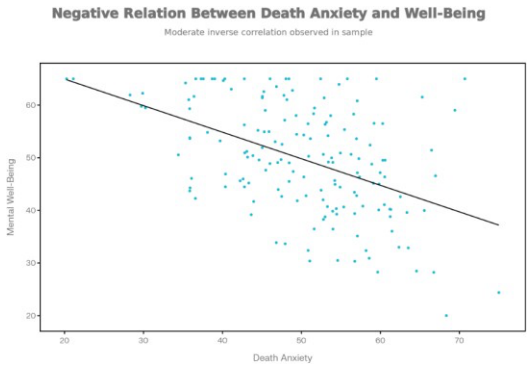
Pearson correlation coefficients examining the relationships between death anxiety, mental well-being, and perceived social support are presented in **Table 2**.

Table 3: Correlation Matrix among Study Variables

Variables	**1**	**2**	**3**
1. Death Anxiety	1		
2. Mental Well-Being	−.48**	1	
3. Perceived Social Support	−.36**	.52**	1

**** p < .01**

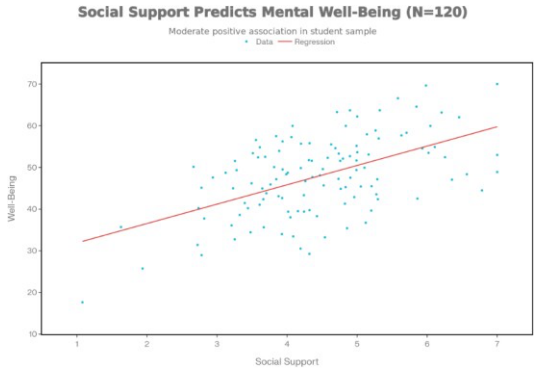
The findings revealed a **significant negative correlation between death anxiety and mental well-being**, indicating that higher levels of death anxiety were associated with poorer mental well-being among gastric cancer patients. This suggests that death-related fears and concerns may adversely influence patients' positive psychological functioning.



This chart shows that death anxiety and mental well, being are inversely related. So, if one has higher death anxiety scores, his/her mental well, being tends to be worse ($r = 0.48$, $p < .01$).

Perceived social support was significantly positively correlated with mental well, being, which means that individuals who perceived higher levels of social support

also tended to have higher levels of mental well, being. Furthermore, perceived social support correlated negatively with death anxiety, implying that people having more supportive interpersonal relationships might experience lower levels of death, related distress.



This chart visually conveys that the greater individuals' perception of social support, the better their mental well, being ($r = .52$, $p < .01$).

DISCUSSION

This study investigated the relationships between death anxiety, perceived social support, and mental well, being among gastric cancer patients in Punjab. The results depict that death anxiety has a strong negative correlation with mental well, being, which means patients that are more fearful of death also have less positive psychological functioning. This conclusion matches the recent psycho, oncology studies across Asian cancer populations, which found death, related concerns to be the main factors in poor emotional well, being and low quality of life among patients with life, threatening illnesses.

Similar research in East and South Asian cancer treatment centers pointed to the fact that increased death anxiety was associated with a state of psychological distress, feelings of hopelessness, and lower subjective well, being in advanced cancer patients. In India, psycho, oncology research is now more and more recognizing the role of existential suffering as an important yet neglected problem in cancer care. While a majority of Indian studies have concentrated on depression and general anxiety, there is little doubt that death, related fear is a significant contributor to the total psychological load besides the presence of normal psychiatric symptoms. Hence, the current results represent a step further in the Indian scenario by considering death anxiety as an independent variable and by associating it specifically with indicators of mental well- being.

From a theoretical standpoint, these results can be interpreted through the lens of Terror Management Theory (TMT) which explains that thinking too much about death can lead to existential anxiety that may cause psychological problems unless one has strong and helpful protective psychological structures. This may be the case, for instance, with gastric cancer as

prognosis uncertainty, and invasive treatments are known to be common (death is always on the patient's mind). If a patient has difficulty in embedding this awareness of death in a meaningful way, it is likely to have a detrimental effect on his/her general well, being.

In the same vein, existentialist psychological theories maintain that the awareness of our limited existence is a human condition that no one can escape, and if the death fear is not solved psychologically, it will be revealed as a lack of vitality and lower life satisfaction.

The study revealed that perceived social support had a significant positive correlation with mental well, being. The finding is in line with the ever, increasing cancer research in the Asian and Indian regions which have proven social connectedness to be a major factor in the protective umbrella against stress or crises resulting from serious illness.

In collectivistic cultural contexts like in India, family setups are usually the major service providers in terms of caregiving, thus offering emotional, financial, and practical support during the course of cancer. Such assistance can lead to increased feelings of being loved, safe, and having a purpose which, in turn, helps to maintain a good state of psychological health.

In addition, the more social support perceived, the less was death anxiety experienced. The patients who had the greater the support network reported less death, related anxiety. This is especially true in the Indian societal and cultural setting when referring to the notion of collectivism and its emphasis on the sharing of severity and burden as means of coping with the state of things. The presence of the family during illness can be very calming and comforting for the patient thus alleviating the sense of loneliness when one is faced with questions of existence.

Cultural attitudes to death might be one factor that influences these results. Generally, in Indian societies, people refrain from talking openly about death and dying as these themes are culturally sensitive and are avoided. This taboo on death might work as a barrier for the patients not being able to openly discuss the fears of existence and it can thus, increase internally generated distress. However, great family ties and spirituality, which are the characteristics of Indian society, could well provide patients with different ways of finding meaning and have their emotions contained. Hence, the combination of the cultural silence surrounding death and the availability of culturally ingrained support

systems can affect the way death anxiety develops in this population.

Simply put, the results from the present study emphasize the value of psycho, oncology research to be deeply embedded in the cultural setting of the study. The present research findings show that among gastric cancer patients in Punjab, there is a significant psychological issue death anxiety and that social support is another very important psychosocial factor related to well, being. These results provide a rationale for oncology clinics to adopt culturally sensitive psychosocial screening and supportive care services. In collectivistic societies, healthcare interventions that promote communication about existential issues and at the same time reinforce family, based support systems might be of particular value.

In sum, this study offers a local piece of evidence to the global branch of psycho, oncology literature and calls for the recognition of the existential aspect of cancer care as one of the current priorities in Indian oncology systems.

LIMITATIONS AND FUTURE DIRECTIONS

Limitations

Even though the article makes several important points, it also has a number of drawbacks which the authors consider worthy of mentioning. Firstly, the use of a cross, sectional research approach does not allow for a causal interpretation of the relationships found between death anxiety, perceived social support, and mental well, being. The authors did find significant correlations among these variables, but they were not able to determine the causal links with certainty. One would need to have longitudinal data to see if death anxiety really leads to changes in mental well, being at a later stage.

Secondly, the research was completely based on self, report scales, which are vulnerable to a number of biases such as social desirability and recall bias. Since death is a particularly sensitive subject, some of the respondents might have repressed or downplayed their worries. Hence, the lack of psychiatrist, led evaluations or structured diagnostic interviews is a limitation both in the assessment of the gravity of psychological symptoms and their clinical relevance.

Thirdly, participants came from hospitals and were diagnosed and treated in tertiary oncology centres in Punjab. Thus, it is less likely that the conclusions are applicable to patients in primary or community health care, those outside the treatment circle, or

people from other areas. India has a lot of cultural, economic, and medical service disparities which may affect the psychological state differently.

Future Directions

In the future, it is necessary for researchers to utilize longitudinal study methods to explore how death anxiety and mental well, being change over time with various phases of the cancer trajectory, i.e. diagnosis, active treatment, survivorship, and palliative care. These types of studies would reveal more about the time, based relationships and the possible predictive impacts.

It is equally important that intervention, based studies be conducted to assess the impact of psychosocial programs that focus on death, related anxiety and enhancement of social support networks. In Indian oncology settings, culturally sensitive interventions that integrate existential therapy, meaning, cantered strategies, or well, structured family, based support models may be extremely useful.

Furthermore, research designs using a combination of methods that integrate quantitative evaluations along with qualitative interviews have the potential to uncover a more profound understanding of patients personal experiences of death fear and ways of coping. Through qualitative investigations, one may gain insight into the culturally rooted meanings, spiritual beliefs, and interpersonal relations that significantly influence the psychological adjustment to a major illness.

CONCLUSION

This research locating the psychological aspects of gastric cancer by studying death anxiety and mental health among the patients of Punjab. The study shows that death anxiety is one of the main psychological concerns in this group and it is associated with poor mental health. Patients with a high level of death anxiety have a very low level of positive psychological functioning which shows that it is important to deal with patients' existential issues in addition to their physical symptoms in the field of oncology especially when dealing with cancer patients.

Moreover, the research notes the importance of perceived social support as a helpful psychosocial factor. A greater amount of perceived social support was linked to a healthier mental state and a lessening of death anxiety which means that close and caring interpersonal relationships can help cancer patients to adjust psychologically. Thus, the research evidence highlights the necessity for

integrating the psychosocial assessment and provision of support in the standard cancer care play especially in tertiary oncology clinics.

Even though the cross, sectional design does not allow us to make causal inferences, this research presents evidence from a particular state that enhances the limited Indian literature on the death anxiety of gastric cancer patients. Its findings indicate the necessity of regularly screening for death, related distress and the introduction of psychosocial measures geared towards social support enhancement and mental health promotion. Subsequent studies, which follow patients over time and focus on the effects of interventions, could provide more in, depth knowledge about how death anxiety and social support influence psychological reactions throughout the cancer journey.

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