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INVESTIGATION OF COPING STRATEGIES AND SOCIAL SUPPORT OF CANCER PATIENTS IN TIMES OF GLOBAL CRISIS

KANSER HASTALARINDA KÜRESEL KRİZ DÖNEMLERİNDE SOSYAL DESTEK VE BAŞA ÇIKMA STRATEJİLERİNİN RUH SAĞLIKLARI ÜZERİNDEKİ KORUYUCU ETKİSİNİN ARAŞTIRILMASI

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ABSTRACT

Objective: This study aimed to investigate the role of social support and coping strategies in moderating the psychological distress of cancer patients during high-stress health crises.

Material and Method: From June 2022 to January 2023, we collected data from 206 cancer patients and 202 healthy controls at Florence Nightingale Hospital. Minimizing the immediate psychosocial impacts and aiming to investigate more chronic, longer-term psychological responses, during a 'return to normalcy' participants completed the Beck Anxiety and Depression Inventories, Fear of COVID-19 Scale, Brief Coping Orientation to Problems Experienced Questionnaire, and Multidimensional Scale of Perceived Social Support.

Result: Cancer patients reported higher levels of anxiety and depression than healthy controls (13.73±7.18 vs. 11.15±7.70, 12.94±5.39 vs. 9.98±6.93, p<0.001). Higher perceived social support, especially from family (b=-0.043; p=0.024 for anxiety, b=-0.028; p=0.044 for depression) and significant others (romantic or life partners) (b=-0.021; p=0.028 for anxiety), moderated the relationship between fear and mental health outcomes, reducing the severity of anxiety and depression symptoms. In contrast, the use of maladaptive coping strategies was found to amplify these outcomes (b=0.162; p<0.001 for anxiety, b=0.1307; p<0.001 for depression).

Conclusion: Being the first study in the literature to investigate the buffering role of social support and coping mechanisms on fear, depression, and anxiety within a cancer patient cohort, it

ÖZET

Amaç: Bu çalışmada, küresel sağlık krizleri sırasında kanser hastalarının karşılaştıkları psikolojik problemleri hafifletmede sosyal destek ve başa çıkma stratejilerinin rolünün araştırılması amaçlanmıştır.

Gereç ve Yöntem: Haziran 2022 - Ocak 2023 tarihleri arasında Florence Nightingale Hastanesi'nde 206 kanser hastası ve 202 sağlıklı kontrol çalışmaya dahil edilmiştir. Ani psikososyal etkileri en aza indirgemeyi ve daha kronik, uzun vadeli psikolojik tepkileri araştırmayı amaçlayarak 'normale dönüş' döneminde katılımcılara Beck Anksiyete ve Depresyon Envanterleri, COVID-19 Korkusu Ölçeği, Çok Boyutlu Algılanan Sosyal Destek Ölçeği ve Başa Çıkma Stratejileri Anketi-Kısa Formu uygulandı.

Bulgular: Kanser hastalarının anksiyete ve depresyon düzeyleri sağlıklı kontrollere göre daha yüksek saptanmıştır (13,73±7,18 vs. 11,15±7,70; 12,94±5,39 vs. 9,98±6,93, p<0,001). Özellikle aile (anksiyete için b=-0,043; p=0,024, depresyon için b=-0,028; p=0,044) ve özel insan (eş, romantik partner) (anksiyete için b=-0,021; p=0,028) tarafından görülen sosyal desteğin, korkunun yol açtığı anksiyete ve depresyon semptomlarının şiddetini hafiflettiği tespit edilmiştir. Buna karşılık, uyumsuz başa çıkma stratejilerinin kullanımının bu düzeyleri daha da kötüleştirdiği saptanmıştır (anksiyete için b=0,162; p<0,001; depresyon için b=0,1307; p<0,001).

Sonuç: Bu çalışma literatürde bir ilk olarak kanser hastalarında, global kriz sonrasında korku, depresyon ve anksiyete üzerinde sosyal desteğin ve başa çıkma mekanizmalarının tamponlayıcı rolünü araştıran bir çalışma olması sebebiyle klinisyenler için

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provides valuable insights for practitioners. These findings are of practical relevance to clinicians aiming to improve mental health among cancer patients in times of global crises, emphasizing the importance of fostering social support and promoting adaptive coping strategies.

Keywords: Anxiety, coping strategies, depression, psycho-oncology, social support

değerli bilgiler sunmaktadır. Kanser hastalarınca algılanan sosyal desteğin güçlendirilmesi ve uyumlu başa çıkma stratejilerini geliştirmesinin, kriz dönemlerinde hastaların biyopsikososyal yönetimi açısından terapötik odak noktası olarak değerlendirilmesi önem arz etmektedir.

Anahtar Kelimeler: Anksiyete, baş etme stratejileri, depresyon, psiko-onkoloji, sosyal destek

INTRODUCTION

As our world becomes increasingly interconnected, we are confronted with global health crises that have the potential to dramatically influence societies and healthcare systems, as evidenced by the recent COVID-19 pandemic that originated in Wuhan, China, in December 2019 (1-3). The overwhelming nature, along with the uncertainty regarding the pandemic's long-term impacts, amplify the fear and anxiety associated with such widespread health crises (4). Certain populations, such as cancer patients, face heightened risks during pandemics due to compromised immunity from disease progression, treatment side effects, and malnutrition. Existing evidence indicates a worse prognosis for COVID-19 infection among these individuals (4-8).

A pressing concern arising from this is the emotional well-being of cancer patients during such health crises. Events like pandemics can magnify feelings of uncertainty, helplessness, and fear of illness or death in these patients, exacerbating the emotional distress experienced by the general population. Moreover, necessary medical visits for diagnosis, treatment planning, and follow-ups can further heighten anxiety (9-11).

Prior research emphasizes the role of social support and positive coping mechanisms in reducing anxiety and depression during health crises, as well as in enhancing overall psychosocial well-being (12). Perceived social support can mitigate the impact of stressful life events, including the emotional distress experienced by cancer patients and individuals with other health conditions (13). However, social isolation, which is often necessitated by a pandemic, can exacerbate emotional distress in cancer patients, potentially affecting treatment adherence and overall quality of life (14).

In light of this, our study aimed to assess levels of depression and anxiety in cancer patients during a significant health crisis. Specifically, we explored the potential mediating roles of coping strategies and perceived social support in the relationship between health crisis-related fear and symptoms of depression and anxiety. We hypothesized that perceived social support and effective coping strategies could buffer the adverse psychological effects of fear associated with significant health crises among this vulnerable population. While our study focused on the most recent global health crisis, we aimed to shed light on potential psychological responses to other similar health crises in the future. This underscores the vital role of social support and adaptive coping strategies in managing fear and uncertainty during such crises.

MATERIAL and METHODS

This research, sanctioned by the Ethics Committee of Istanbul Bilgi University (Date: 26.05.2022 Project no: 2022-40034-70), conformed to the principles of the Declaration of Helsinki. All involved parties provided their consent in writing.

Design, patients, and recruitment

The study included 206 cancer patients and 202 healthy controls, matched for age, gender, education level, and employment status. Controls, relatives, or friends of healthcare workers at Florence Nightingale Hospital, were not caregivers, had no chronic diseases, or family members diagnosed with cancer. Cancer patients were recruited from the Chemotherapy Unit of Florence Nightingale Hospital between June 2022 and January 2023. To minimize the immediate psychosocial impacts of the pandemic and to study more chronic, longer-term psychological responses, patients were recruited approximately two years after the pandemic's peak, during a period often described as a 'return to normality'. Eligible cancer patients had either been living with their diagnosis for at least two years or had undergone chemotherapy during the pandemic period, and ensured that their psychological responses were not immediate reactions to the acute crisis of diagnosis or initial treatment but rather represented their adaptive processes and coping mechanisms.

To be included in the study, participants had to be at least 18 years old and capable of providing written informed consent. Those with dementia or any other organic neurological conditions that might interfere with their ability to provide informed consent or to complete the study measures were excluded from participation.

Measurements

Participants completed a Sociodemographic Data Form, Fear of COVID-19 Scale, the Brief Coping Orientation

to Problems Experienced (Brief-COPE) Questionnaire, the Multidimensional Perceived Social Support Scale (MPSSS), the Beck Depression Inventory (BDI), and the Beck Anxiety Inventory (BAI).

The Fear of COVID-19 Scale, developed by Ahorsu et al., was used to assess the fear levels and the associated psychological stress caused by COVID-19, serving as a representation of fear induced by a recent global health crisis. Higher scores indicate a higher fear level. In this study, the internal consistency of the scale was found to be 0.82 (15). A higher score on the scale indicates a higher level of fear. Based on certain research protocols and following a cut-off point of 3 for each question, a total score of 21 was used as a threshold in our study to distinguish between individuals with low and high fear of COVID-19 (16). This served as a specific measure of stress and fear levels associated with the most recent global health crisis, providing a real-world context for our exploration of potential responses to future, similarly stressful situations.

The Beck Depression Inventory (BDI), a 21-item self-report questionnaire, assesses the severity of depression symptoms. Higher scores indicate more severe symptoms. It has been validated and adapted to Turkish (17). In our study, we found a high Cronbach's alpha of 0.877, indicating strong internal consistency of the BDI items in our sample.

The Beck Anxiety Inventory (BAI) measures the severity of anxiety symptoms in adults. Higher scores indicate greater symptom severity. The BAI has been validated and adapted to Turkish (18). In this study, we found a Cronbach's alpha of 0.893 indicating high internal consistency of the BAI items in our sample.

The Turkish variant of the Brief Coping Orientation to Problems Experienced (Brief COPE) was used to evaluate coping strategies. This is a more succinct version of the COPE inventory Higher scores denote a higher inclination towards using a given strategy. These strategies fall into two categories: adaptive coping strategies (acceptance, planning, active coping, use of instrumental support, positive reframing, use of emotional support, humor, and religious coping) and maladaptive coping strategies (self-blame, denial, self-distraction, venting, disengagement, and substance use). The Turkish validity and reliability study of the scale was conducted by Bacanlı et al., indicating good psychometric properties (19). In our study, we found that the Cronbach's alpha values for the sub-scales were higher than 0.60, indicating acceptable to good internal consistency.

The Multidimensional Perceived Social Support Scale (MPSSS) evaluated social support across three dimensions: family, friends, and significant others. Higher scores mean higher perceived support. It has been validated and adapted to Turkish (20). High internal consistency was found in our study for all three dimensions with Cronbach's alpha values above 0.88.

Statistical analysis

Statistical analysis was carried out using SPSS 22. Normality checks were conducted with the Kolmogorov-Smirnov test and kurtosis skewness values. Depending on data distribution, correlations between variables were assessed with Pearson's or Spearman's tests. Group comparisons were made with independent samples t-test or Mann-Whitney U-test. To identify independent predictors of anxiety or depression in cancer patients, regression analyses were performed. The moderating effects of social support and coping styles on the relationship between fear and anxiety/depression symptoms were evaluated using the PROCESS for SPSS Macro(Model 1). The direct and mediated effects of fear on depression and anxiety were examined using process modeling, with bootstrapping used for non-normal distributions. The significance level was set at $p < 0.05$. The analysis included only complete questionnaires, ensuring no missing data.

RESULTS

The study comprised 206 cancer patients (average age: 60.45±12.40 years, male/female ratio: 86/120) and 202 healthy controls (average age: 57.34±13.23 years, male/female ratio: 87/115). No significant differences were observed between the cancer patient and healthy control groups in terms of sex (p=0.78), marital status (p=0.21), and education levels (p=0.89).

Among the cancer patient group, female patients had significantly higher BDI scores than male patients (13.73±5.16 vs 11.83±5.53, p=0.01). No significant differences were observed in BDI and BAI scores for cancer stage, recurrence, therapy, history of operation, or marital status.

Cancer patients generally showed significantly higher scores than healthy controls in the Fear of COVID-19 Scale, BAI, BDI, and MPSSS (Table 2).

For individuals with a Fear Scale score below 21, cancer patients displayed significantly higher mean BAI and BDI scores than healthy controls (BAI=13.21 vs. 10.33, p=0.003; BDI=12.66 vs. 8.96, p<0.001). However, for those with a Fear Scale score of 21 or above, no notable differences in BAI or BDI scores were observed between cancer patients and the healthy control group (Table 3).

In the cancer cohort, negative correlations were found between BAI and BDI scores and MPSSS subscores, as well as certain Brief-COPE subscores. However, BAI and

Table 1: Sociodemographic and Clinical Features

Age mean±SD		**Cancer patients (n=206) n (%)**	**Healthy controls (n=202) n (%)**	**p-value**
		60.45±12.40	**57.34 ± 13.23**	**0.01**
Gender	Female	120 (58.3)	115 (56.9)	0.78
	Male	86 (41.7)	87 (43.1)	
Marital status	Single	8 (3.9)	18 (8.9)	
	Married	170 (82.5)	160 (79.2)	0.21
	Divorced	11 (5.3)	10 (5.0)	
	Widow	17 (8.3)	14 (6.9)	
Education	Primary school	44 (21.4)	48 (23.8)	0.89
	Secondary school	24 (11.7)	22 (10.9)	
	High school	61 (29.6)	64 (31.7)	
	College	67 (32.5)	61 (30.2)	
	PhD	10 (4.9)	7 (3.5)	
Stage of the disease	2	22 (10.7)		
	3	44 (21.4)		
	4	140 (68.0)		
Recurrence	Yes	62 (30.1)		
	No	144 (69.9)		
Treatment history	Chemotherapy	206 (100)		
	Hormonotherapy	28 (13.6)		
	Radiation therapy	81 (39.3)		
	Surgery	124 (60.2)		
Diagnosis of cancer type	Breast	54 (26.2)		
	Lung	38 (18.4)		
	Colorectal	33 (16.0)		
	Gastric	18 (8.7)		
	Pancreatic	11 (5.3)		
	Head and neck	10 (4.9)		
	Other*	42 (20.4)		

*Ovarian, testicular, bladder cancer; cholangiocarcinoma, mesothelioma; Numbers indicate mean ± Standard Deviation or n (%) and p value denotes Student's t test or chi square test where appropriate.

BDI scores were positively correlated with the Self Blame subscores (Table 4).

Univariate regression analysis identified fear, MPSSS subscores, and certain coping strategies as significant predictors of anxiety and depression levels. Following multivariate analysis, these predictors were narrowed down to fear, MPSSS significant others, and select coping strategies for BAI, and fear, MPSSS friends, significant others, and specific coping strategies for BDI (Supplementary Table 1).

Model 1, including fear, MPSSS family, significant other, active coping, acceptance, and religious coping as independent variables, accounted for 65% of the variance in BAI scores ($F(4,201)= 27582$, $p<0.001$). Model 2, comprising fear, MPSSS significant other, active coping, acceptance, positive reframing, use of instrumental support, and acceptance as independent variables, explained 56% of the variance in BDI scores ($F(4,201)= 22696$, $p<0.001$).

Mediator analyses were conducted to investigate the indirect effects of fear on depression and anxiety symptoms through perceived social support and coping styles. MPSSS family showed a significant and negative moderating effect on the relationship between fear and depression and anxiety symptoms severity ($b=-0.028$, $t=-2.020$, $p=0.044$, $R2=0.08$, $\Delta R2=0.02$ for depression; $b=-0.043$, $t=-2.020$, $p=0.024$, $R2=0.08$, $\Delta R2=0.02$ for anxiety) (Figure 1,2).

Maladaptive coping styles demonstrated a significant and positive moderating effect on the relationship between fear and severity of depression and anxiety symptoms ($b=0.1307$, $t=6.581$, $p<0.001$, $R2=0.22$, $\Delta R2=0.16$ for depression; $b=0.1620$, $t=6.036$, $p<0.001$, $R2=0.20$, $\Delta R2=0.14$ for anxiety) (Figure 1,2).

MPSSS significant other also showed a significant and negative moderating effect on the relationship between fear and severity of anxiety symptoms ($b=-0.021$, $t=2.222$, $p=0.028$, $R2=0.61$, $\Delta R2=0.09$) (Figure 2).

Table 2: Comparison of Scale Scores between cancer patients and healthy controls

	Cancer patients (n=206)	Healthy controls (n=202)	p-value
Beck anxiety inventory	13.73±7.18	11.15±7.70	<0.001
Beck depression inventory	12.94±5.39	9.98±6.93	<0.001
Fear of COVID-19 Scale	21.71±6.34	16.25±4.27	<0.001
MPSSS	61.85±8.69	48.89±7.33	<0.001
MPSSS family	22.34±3.71	17.62±3.89	<0.001
MPSSS friends	20.08±4.13	18.34±3.98	<0.001
MPSSS significant other	19.43±5.50	12.93±4.50	<0.001
Adaptive COPE			
Active coping	4.34±1.73	4.92±1.76	0.001
Planning	2.53±0.75	5.93±1.18	<0.001
Positive reframing	2.63±0.94	4.54±1.10	<0.001
Use of instrumental support	5.72±1.48	3.56±1.25	<0.001
Use of emotional support	6.19±1.18	5.85±1.08	0.003
Acceptance	6.82±1.69	5.26±1.55	<0.001
Religious Coping	6.20±1.36	6.31±1.44	0.45
Maladaptive COPE			
Humor	2.93±0.98	5.47±1.50	<0.001
Denial	2.47±0.73	4.38±1.45	<0.001
Disengagement	2.83±0.92	6.18±1.54	<0.001
Self–distraction	4.21±1.65	4.35±1.21	0.33
Venting	3.26±1.15	5.33±1.57	<0.001
Substance use	2.29±0.58	4.63±1.66	<0.001
Selfblame	4.12±1.09	4.04±1.67	0.58

Brief-COPE: Brief coping orientation to problems experienced questionnaire, MPSSS: Multidimensional Perceived Social Support Scale

Table 3: Comparison of Anxiety (BAI) and Depression (BDI) Levels in Cancer Patients and Healthy Controls Based on Fear of COVID-19 Scale Score Threshold

		Fear of COVID-19 Scale Score	Number of patients	Mean	Standard deviation	p-value
BAI	Cancer patients	<21	86	13.21	7.28	0.003
	Healthy controls		165	10.33	7.04	
BDI	Cancer patients	<21	86	12.66	5.73	<0.001
	Healthy controls		165	8.96	6.04	
BAI	Cancer patients	≥21	120	14.11	7.10	0.68
	Healthy controls		37	14.78	9.39	
BDI	Cancer patients	≥21	120	13.13	7.10	0.35
	Healthy controls		37	14.54	8.69	

BAI: Beck Anxiety inventory, BDI: Beck depression inventory

Table 4: Correlation Analysis of Beck Anxiety Inventory (BAI), Beck Depression Inventory (BDI), Multidimensional Perceived Social Support Scale (MPSSS), Brief Coping Orientation to Problems Experienced (Brief-COPE) Questionnaire Scores and Subscores

	BDI	BAI
BDI	1	0.173*
BAI	0.173*	1
MPSSS	-0.584**	-0.514**
MPSSS family	-0.176*	-0.146
MPSSS friends	-0.374**	-0.309**
MPSSS significant other	-0.525**	-0.618**
Adaptive coping orientation to problems experienced subscores		
Active Coping	-0.320**	-0.208**
Planning	-0.108	-0.152*
Positive Reframing	-0.275**	-0.227**
Use of Instrumental Support	-0.244**	-0.202**
Use of Emotional Support	-0.055	-0.130
Acceptance	-0.341**	-0.139*
Religious Coping	-0.219**	-0.246**
Humor	-0.005	-0.037
Maladaptive coping orientation to problems experienced subscores		
Denial	0.027	0.001
Disengagement	-0.146*	-0.177*
Self–distraction	0.088	0.043
Venting	-0.099	-0.142*
Substance Use	-0.037	-0.004
Selfblame	0.263**	0.182**

*p<0.05, **p<0.01, MPSSS: The Multidimensional Perceived Social Support Scale, BDI: The beck depression inventory, BAI: The beck anxiety inventory

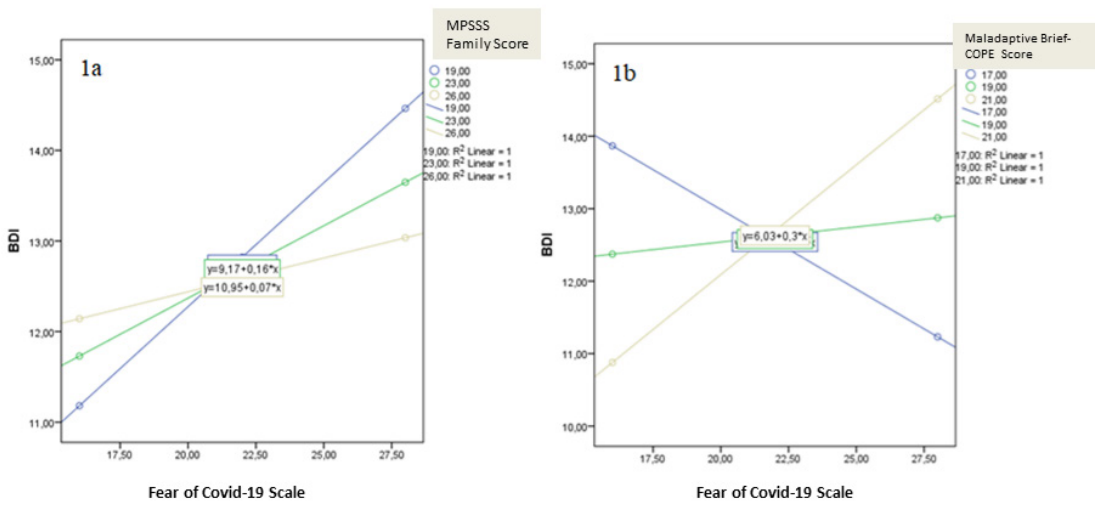

Figure 1: Interaction Effects of Perceived Social Support from Family (1a) and Maladaptive Coping Styles (1b) on the Relationship between Fear of COVID-19 and Depression Symptom Severity
Brief-COPE: The Brief Coping Orientation to Problems Experienced, MPSSS: The Multidimensional Perceived Social Support Scale, BDI: The beck depression inventory, BAI: The beck anxiety inventory

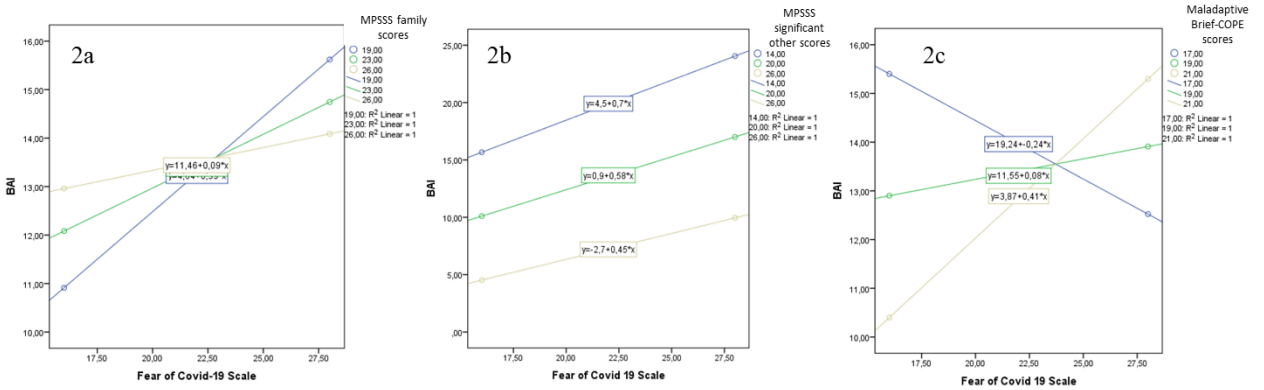

Figure 2: Interaction Effects of Perceived Social Support from Family (2a), from Significant Others (2b), and Maladaptive Coping Styles (2c) on the Relationship between Fear of COVID-19 and Anxiety Symptom Severity
Brief-COPE: The Brief Coping Orientation to Problems Experienced, MPSSS: The Multidimensional Perceived Social Support Scale, BDI: the beck depression inventory, BAI: The beck anxiety inventory

DISCUSSION

This research explores the psychological repercussions of global crises on cancer patients as a vulnerable group, using the pandemic as the current context. Our key findings underline the need for targeted interventions to support their mental health, revealing that cancer patients exhibited higher levels of fear, anxiety, and depression related to health crises compared to healthy controls. We also found that adaptive coping and strong social support were associated with reduced anxiety and depression among cancer patients, thus playing a protective role. Importantly, these factors, along with fear, accounted for a significant portion of the variance in anxiety and depression scores. Additionally, our mediation analyses revealed that social support and maladaptive coping styles moderated the relationship between fear and the severity of anxiety and depression symptoms.

Cancer patients reported higher levels of fear, anxiety, and depression due to the crisis compared to healthy controls. However, a stronger social support network and adaptive coping strategies reduced the levels of anxiety and depression, indicating their protective role during crises. These factors accounted for a significant portion of the variance in anxiety and depression scores. The association between high perceived social support and lower depression and anxiety levels aligns with previous studies (21-23).

Importantly, patients with a lower fear of the global crisis (as measured by fear scores less than 21) still experienced higher levels of anxiety and depression, suggesting the stress of cancer diagnosis amplifies the psychological effects of the crisis. This underscores the need for robust mental health support for cancer patients, particularly during times of global uncertainty (24).

Interestingly, the differences in anxiety and depression levels between cancer patients and healthy controls diminished among those with higher fear scores, suggesting that extreme fear might act as a dominant stressor that blurs the distinction between these two groups. This reveals the necessity to provide comprehensive support for both vulnerable groups and the general population during crisis times.

The study also found that low levels of perceived social support correlated with higher levels of depression among cancer patients, emphasizing the importance of social support networks during times of health crises, aligning with previous studies that highlight social support as a crucial factor in adjustment to illness (25-27). Identifying patients struggling to receive social support can enable referrals to appropriate support networks and programs, thereby improving their quality of life. Furthermore, maladaptive coping styles like "Self Blame" were positively correlated with anxiety and depression in line with the literature (28), highlighting the need to promote adaptive coping methods in vulnerable populations.

Our study affirms social support and coping strategies buffer pandemic-induced anxiety and depression. Research indicates that social support can serve as a shield, mitigating psychological strain in periods of crisis. The buffering hypothesis posits that social support can moderate, or "buffer," the impact of stressful events on an individual's well-being (29).

Our research indicates that the level of perceived social support, particularly from family and significant others, has a substantial moderating effect on the intensity of anxiety and depression symptoms related to fear during a crisis. Specifically, higher levels of perceived social support were linked to a decrease in the severity of these symptoms, explaining a significant portion of their vari-

ance. Conversely, the use of maladaptive coping strategies intensified anxiety and depression symptoms in relation to crisis-related fear. This underscores the pivotal role of adaptive coping strategies in managing mental health symptoms during global crises.

The results from this study are not only applicable to the COVID-19 pandemic but also point towards potential impacts of future global crises. These elements may not be unique to this pandemic but pertinent in any context involving widespread fear and uncertainty, like future pandemics, epidemics, or large-scale natural disasters. The findings emphasize the pivotal role of social support and adaptive coping strategies in mitigating fear-induced mental health impacts in cancer patients, during any health crisis. Our findings provide evidence-based insights for crafting interventions for future crises. They underline the importance of ongoing research into the psychological impacts of global crises, especially on vulnerable groups, to bolster societal resilience. Notably, fostering social support networks and promoting adaptive coping strategies could help mitigate the psychological impact of health crises on cancer patients.

Limitations

The cross-sectional design limits our ability to definitively establish the causality or directionality of the observed relationships. Our reliance on self-reported measures raises potential issues such as response biases. Furthermore, the study did not control for pre-existing mental health conditions, which can significantly influence the severity of anxiety and depression symptoms.

Clinical implications

The findings underscore the need for robust mental health support during global crises. Understanding that individuals differ in their sources of support and coping strategies can inform the development of customized intervention approaches. Such strategies can enhance mental health responses during crises, aiding in better management of anxiety and depression symptoms among vulnerable groups like cancer patients.

CONCLUSION

The study illuminates the psychological challenges faced by cancer patients during global health crises. These individuals experience significantly elevated levels of anxiety and depression, pointing towards the necessity of comprehensive mental health support for these patients. Fostering social support and promoting adaptive coping strategies can help to mitigate the psychological impact of crises.

Future research should further investigate these factors in the post-crisis recovery phase, further elucidating their role in shaping mental health outcomes in vulnerable groups. Ultimately, the study emphasizes the importance of comprehensive, tailored mental health interventions that account for individual fears, social support systems, and coping mechanisms during global crises.

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