Research Article

Death Anxiety and Depression Among Nurses: The Mediating Role of Empathy

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Abstract

Background: The COVID-19 pandemic significantly affected life all over the world. Death anxiety has a significant impact on the mental health of individuals, especially in the health care professionals. The fear and apprehension surrounding mortality has significantly affected nurses, leading to various mental health challenges, including depression. While the awareness of death can impose substantial psychological strain, it can also foster positive traits essential for patient care, such as empathy.

Objective: The study identifies the relationship between death anxiety, depression and empathy. It also explores the mediating role of empathy in the relationship between death anxiety and depression among nurses.

Method: A cross-sectional research design and a purposive sampling strategy were used to collect data from nurses (N=200) working at different government and private hospitals in Lahore, Pakistan, during the COVID-19 pandemic. The participants' ages ranged from 23 to 52. The Siddiqui-Shah Depression Scale, Urdu-translated versions of the Death Anxiety Scale, and Jefferson Scale of Empathy were administered to nurses.

Results: The results reveal a positive relation between death anxiety with depression (r= .43**) and empathy (r = .31**). Death anxiety and empathy were found to be significant predictors of depression. Furthermore, empathy was found to be a significant mediator between death anxiety and depression.

Conclusion: Based on the findings, clinical psychologists may devise various interventions/management plans to manage death anxiety and depression among nurses.

Introduction

The emergence of COVID-19 in 2019 has resulted in a global-scale epidemic. The prevalence, novelty, infectious nature, and mortality rates associated with COVID-19 have placed unparalleled demands on the healthcare sector. As this pandemic continues to take hold, healthcare professionals are faced with highly critical circumstances that are acutely emotionally draining[1] and impart negative consequences on mental health.

Nurses comprised 50% of the world's frontline workforce against the pandemic.[2] They are frequently faced with health risk behaviors, illness, trauma death, and dying. The reality of death can neither be denied nor undermined. Face-off with death-related situations is often associated with apprehension and fear. Apprehension about the uncertain future can distort perceptions and invoke negative emotional and behavioral responses. The grief resulting from death influences our mind,

body, and emotions, adversely affecting physical and psychological well-being. Contemplating death can cause significant anxiety,[3] often referred to as death anxiety – a state in which an individual experiences physiological reactivity, feelings of fear, and dreaded thoughts of death and dying by imagining potential threat.[4]

Nurses, especially those working in geriatric care settings, death anxiety is prevalent as their services are life-centred and often involve life-threatening situations. Over time, this alters their concept of death and affects their care quality. Nurses' attitudes toward patients in end-of-life care are significantly affected by death awareness, whereas education about death tends to foster a more positive attitude in them.[5] Within the healthcare structure, the relationship between death anxiety and depression is a frequently visited subject matter. These can function as occupational stressors and negatively influence decision-making ability, quality care, understanding of the needs and emotions of the patients, etc.

Depression is a common mental health concern in specific occupational sectors. It is a psychological condition characterized by depressed mood along with insomnia/hypersomnia, psychomotor agitation/retardation, hopelessness, guilt, and suicidal ideations.[6] Nurses experience high stress that can have serious consequences. If the stress exceeds their tolerance levels, it may result in issues such as depression etc.[7] Depression was found to affect work motivation and overall lifestyle conditions.[8,9] Psychological distress can be improved by increasing self-efficiency, using positive coping strategies, and developing an understanding of violent problematic behaviors.[10] Significant predictors of depression among nurses include heavy workloads, worker shortages, unpredictable behavior, unsatisfactory nurse-patient relationships, and low socioeconomic and professional status in the health care system.[11]

While death awareness can instill significant anxiety, fear, depression, panic, etc., it may also promote positive outcomes such as empathy, increased motivation to make a difference, and mental endurance, all of which are essential for high-quality healthcare services. Empathy, a predominantly cognitive trait, involves understanding the experiences and perspectives of the patient, together with the capacity to communicate this understanding.[12] Nurses must understand the needs and feelings of the patients, and empathy is the main factor behind this.[13] It is crucial for promoting effective nurse-patient communication, which in turn results in improved treatment outcomes, greater patient satisfaction, and enhanced job performance for nurses.[14]

Cognitive appraisal theory suggests that individuals assess stressful situations based on their significance to well-being and coping ability. Nurses, when faced with death-related situations, may appraise these experiences as difficult, leading to negative psychological outcomes such as anxiety, etc. In the face of their intense emotional responses, the ability to empathize with patients may emerge as a coping strategy.[15] Empathy can be seen as a vital psychological resource that helps nurses manage stress and anxiety and buffers against depressive effects, enabling them to maintain emotional resilience, provide compassionate care, and find a deeper sense of purpose and fulfilment in their roles.[16] Additionally, Batson suggested that while empathy fosters an altruistic drive to help others, it can also lead to emotional exhaustion and, over time, contribute to depressive symptoms, especially if the emotional labor required in caregiving is not adequately supported.[17]

Experience level, workload, time constraints, and prejudgment regarding patient behavior have been identified as significant predictors of empathetic tendencies within nurses.[13] Literature reveals that emotional exhaustion and empathy levels were significantly lower for nurses providing services in emergency medical wards. Patient suffering may lead to emotional exhaustion in nurses. Nurses working in standard wards displayed higher depersonalization levels than nurses functioning in other standard wards. This decline in empathy and heightened depersonalization could be viewed as an adaption mechanism associated with experience.[18]

Death anxiety, depression, and empathy are scarcely explored variables among the nurses within the Pakistani culture. Furthermore, death anxiety, being a very personal and sensitive issue, has not received much research attention in Pakistan. As Pakistan is a developing country, the health care system lacks basic facilities. Nurses, doctors and other paramedical staff are busy serving the nation. Their physical and mental health has suffered a lot, especially in this pandemic. Specifically, the mental health of nursing staff is being ignored in Pakistan. This study aims to investigate the relationships between death anxiety, depression, and empathy among

nurses. It seeks to explore the role of death anxiety and empathy as predictors of depression. Additionally, it explores the mediating role of empathy in the relationship between death anxiety and depression among nurses. The study hypothesized that 1) there will be a positive correlation between death anxiety and depression among nurses; 2) there will be a positive correlation between death anxiety and empathy; 3) there will be a negative correlation between depression and empathy; 4) death anxiety and empathy will predict depression; and 5) empathy will mediate the relationship between death anxiety and depression among nurses.

Methods

A cross-sectional research design was used. The study sample consisted of 200 (180 = women, 20 = men) nurses working in different shifts in various departments. These included the emergency, intensive care unit, operation theatre, critical care unit, medical, surgical, gynaecology, and paediatric wards of private and government hospitals in Lahore, Pakistan. Nurses were selected using a purposive sampling strategy. The sample size was calculated through G-power 3.1.9.3 software, and their age ranged from 23-52 years. The majority of the participants were emergency nurses (34%) with an educational degree in either nursing midwifery/post basic speciality degree (57%) or post RN/BScN (39%) and at least 1-3 years of clinical experience (61%).

Data was collected using the Death Anxiety Scale. It consists of 17 items with a 5-point rating scale ranging from 1-5 with four subscales: 1) Dysphoria, 2) Death Intrusion, 3) Fear of Death, and 4) Avoidance of Death. The internal consistency reliability, Cronbach's α of this scale, is .86 while test-retest reliability is 0.69, as reported by the scale authors [4]. In the present study, the Cronbach alpha is .92. High scores on this scale show a higher level of death anxiety. Permission to use and translate the scale was obtained from the author. The scale was translated into Urdu language using the Lexicon equivalence method.[19]

The Siddiqui Shah Depression Scale (SSDS) was used to assess depression among nurses. It consists of 36 items with a 4-point rating scale. This scale has a highly significant internal consistency, with an alpha coefficient of .91, as reported by the scale authors.[20] In the present study, the Cronbach alpha is .93. High SSDS scores indicate depression symptoms.

Jefferson`s Scale of Empathy was used to assess empathy. It consists of 20 items with a 7-point rating scale, ranging from strongly disagree to strongly agree. Regarding internal consistency, Cronbach's alpha coefficient of this scale is .81, and the test-retest reliability coefficient is .65, as reported by the authors 12. In the present study, the Cronbach alpha is .84. High scores on JSE-HP indicate a more empathetic behavioral orientation. An Urdu-translated version was used in the present study.

The Ethical Review Committee (ERC) and the Board of Studies approved the study. Permission was obtained from the authors to use and translate the scales. The scale for death anxiety was translated into Urdu using the Lexicon equivalence method. Permission was taken from the Department of Applied Psychology to initiate data collection. Further permission was obtained from the medical superintendent, the department, and the nurse in charge of the concerned hospitals. The researcher thoroughly explained the research title, objectives, and significance to all the participants. Ethical considerations, including the right to informed consent, right to privacy, right to confidentiality, and freedom to withdraw from the research at any point, were explained to the participants. Questionnaires were handed out to all the willing participants. All relevant queries were answered, and the researcher provided appropriate assistance. After obtaining the responded to questionnaires from the participants, the researcher thanked them.

Results

To accomplish the objectives of this research study, a series of analyses were performed using Statistical Package for Social Science (SPSS 21). Initially, Descriptive statistics along with inferential statistics was used. Correlation analysis was run to explore the relationship between variables. Multiple linear regression was run to examine the predicting role of work experience, death anxiety, and depression. Moreover, mediation analysis was used to find out the mediating role of empathy in the relationship between death anxiety and depression among nurses.

The results of the table reveal the correlation between death anxiety along with its four subscales: depression and empathy. The table shows that there is a significant positive correlation between death anxiety and depression (r = .43**), which indicates that the higher the level of death anxiety among nurses, the higher the depressive tendencies. There is a significant positive correlation between death anxiety and empathy (r = .31**). In

addition, there is a significant negative correlation between depression and empathy (r=- .21**). Furthermore, the subscales of the death anxiety scale have substantial positive correlations with depression and empathy(Table-1).

Table 1: *Correlation among Death Anxiety, Depression and Empathy in Nurses.*

Scales	1	2	3	4	5	6
Death Anxiety	.86**	.87**	.86**	.66**	.43**	.31**
Dysphoria	-	.75**	.79**	.47**	.39**	.27**
Death Intrusion	-	-	.71**	.53**	.36**	.27**
Fear of Death	-	-	-	.50**	.28**	.31**
Avoidance of Death	-	-	-	-	.22**	.42**
Depression	-	-	-	-	-	- .21**
Empathy	-	-	-	-	-	-

*Note: **p<.01.*

Table 2 illustrates that the overall model explained 31% variance (R^2 = .031, F = 29.51, p< .05). Death anxiety (β=.53, p<.001) is found to be positive, whereas empathy

Table 2: *Multiple Linear Regression Analysis for Experience, Death Anxiety and Empathy as Predictors of Depression (N= 200).*

Variables	Depression		
	B	*S.E*	β
Constant	60.21	5.67	
Experience	-.87	0.80	-.07
Death Anxiety	.64	.08	.53***
Empathy	-.34	.06	-.37***
R^2	.31		
F	29.51		

*Note: ***p<.001.*

(β = -.37, p< .05) is found to be a significant negative predictor of depression among nurses. To run the mediation analysis, death anxiety was selected as an independent variable because it significantly predicts depression in nurses(Table-3).

Table 3: *Role of Empathy as a Mediator between Death Anxiety and Depression in Nurses*

	Consequent					
	M(E)			Y(D)		
Antecedent	β	SE	p	β	SE	p
DA (X) α	.40	.08	.000***	c	.50	.07	.000***
E (M)	--	--	--	b	-.33	.05	.000***
	R^2= .09				R^2= .30		
	F (20.53), p =.000***			F (43.62), p =.000***			

*Note: DA= death anxiety, E= empathy, D= depression, p<.001***
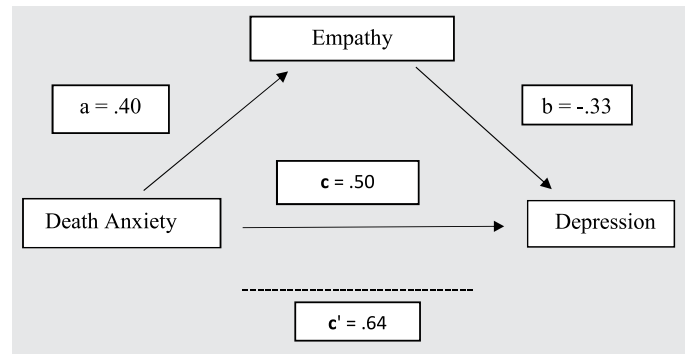

Figure 1. *The mediation pathway of death anxiety, empathy and depression in nurses p<.001***.*

The regression-based method was used[21] to determine the mediating role of empathy in the relationship between death anxiety and depression in nurses. Path 'a' is significant and positively ('a'= .40, p<.001***) predicts empathy, thus indicating that the higher the level of death anxiety, the more the person will be empathetic. Path 'b' negatively predicts depression ('b'= -.33, p< .001***), thus indicating that the higher the level of empathy, the lesser the depression. Path 'c' was also significant ('c'=.64, p<.001***), indicating a positive relationship between death anxiety and depression (Figure 1).

Discussion

Nurses have a central part in the health care structure, and every day, they are faced with unique challenges of illness, trauma, violence, death, dying, and malignant patients. These situations of death and dying are associated with apprehension and fearful feelings and affect their physical functioning (job performance, quality of life, etc.) along with their psychological and mental wellness. The study revealed important associations between the study variables. Firstly, the significant positive correlation between death anxiety and depression (.43**) was consistent with previous research.[22,23] Nurses are frequently faced with situations of death and dying. Their experience makes them conscious of their mortality, which often gives rise to anxiety and depression.[24] A significant positive correlation of death anxiety with empathy (.31**) indicated that those with greater anxiety about death-related events tend to cope with death anxiety by empathically reaching out to other individuals. It is also possible that empathy may be a form of coping strategy for those who experience greater death anxiety.[25]

Additionally, increased death anxiety can make people more likely to respond with empathy to others as a way of affirming their own existence. When they help others, they often feel important, which can strengthen their sense of purpose in life.[26] Substantive evidence provided by various other researchers suggests that the variables of death anxiety and empathy are positively correlated.[25] A significant negative correlation between depression and empathy (- .21**) indicates that nurses with more empathy appraise situations as less stressful and less threatening and, as a result, experience lesser depression. Furthermore, depression induces changes in the cognition of the depressed individual that can potentially lead to lowered empathetic tendencies.

Multiple linear regression analysis revealed that death anxiety and empathy are significant predictors of depression among nurses. Literature also reveals that death anxiety and empathy are significant predictors of depression.[27] Furthermore, empathy was found to be significantly mediate between death anxiety and depression. The mediating role of empathy was supported by previous literature, which revealed the significant mediating role of cognitive empathy in the relationship between mindfulness and engagement factors in nursing professionals.[28]

The study has certain limitations. Due to COVID-19, obtaining permission for data collection from the hospital authorities and the subsequent data collection process took time. The research was conducted during COVID-19, which might have contributed to the psychological distress of the nurse population. Due to their busy schedule, getting nurses to participate in the research was challenging. The study variables need more research within the context of the Pakistani culture. Furthermore, male participants were not easily accessible.

Exploration of death anxiety, depression, and empathy provides an enhanced understanding of human behavior. The present study reveals the relationship and impact of empathy and death anxiety in depression among nurses who are serving in different departments of hospitals. They encounter death and dying situations daily, which can affect their psychological wellbeing. The findings of the study highlight the need for various interventions, management, and counselling techniques to manage and counter the disturbing consequences of death anxiety and depression and elevate existing levels of empathy among nurses. These management techniques will assist the nursing staff in developing enhanced acceptance, death awareness, improved death attitudes, careful decisions, and professional growth, which will lead to holistic well-being.

Conclusion

The findings of the study reveal that there is a significant positive relationship between death anxiety and depression. A significant negative correlation was found between depression and empathy. Death anxiety and empathy were seen as important predictors of depression. Empathy was found to be significantly mediate between death anxiety and depression among nurses.

Authors' Contribution

UP: Acquisition of data, analysis & interpretation of data, drafting of article

URK: Conception & design, analysis & interpretation of data, drafting of article, critical revision for important intellectual content, final approval

SA: Acquisition of data, drafting of article

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