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## Work status, death anxiety and psychological distress during COVID-19 pandemic: Implications of the terror management theory

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### ABSTRACT

The present study determined the application of terror management theory during the COVID-19 pandemic in Pakistan. Death anxiety and psychological distress were examined in the context of work status. A sample of 478 from the general population voluntarily participated in the study. Findings revealed a significant moderating role of work status, illustrating the strong relationship between psychological distress and death anxiety for non-working participants. Therefore, psychological distress is related to more significant death anxiety among non-working than those who are working. This study highlights the importance of work as an anxiety buffering factor concerning mortality thoughts.

The outbreak of the novel coronavirus was first detected in the Wuhan city of China, in December 2019. This disease that targets the body's respiratory system is officially abbreviated as SARS-CoV-2. Its spread across the world started dominating the global headlines and was declared a global pandemic by the World Health Organization on 12 March 2020 (World Health Organization, 2020). The COVID-19 pandemic has resulted in the deaths of more than 1,570,155 deaths of people around the world by the mid of December 2020. Both the developed and developing countries have been facing the devastating effects of this pandemic. However, in countries like Pakistan with weak infrastructure and health care systems, the situation is worse (Arshad et al., 2020). The first two cases of COVID-19 were reported from Karachi city of Pakistan, on 26 February 2020. There has been a successive increase in the disease's confirmed cases within the last four months nationwide (Abid et al., 2020). At the time of writing this paper (July 2020), 256,000 confirmed COVID-19 cases with 173,000 recoveries, and 5,400 deaths were confirmed in the country (Coronavirus in Pakistan, 2020). Since the breakout of this contagious disease, death reminders are all around. Current literature is also providing evidence of an increased level of anxiety and poor mental health due to the COVID-19 pandemic (Lee, 2020). Currently, mortality is made salient with daily updates on death cases on social media. Cues of death

vulnerability in this unusual scenario in the form of face masks, constant directives by the government to take precautionary measures, and safety awareness campaigns are also present (Menzies & Menzies, 2020).

Human beings fear death as a central and universal part of their experiences (Ilyas & Muazzam, 2015). Becker (1974) proposed that human beings are derived by their basic biological need to deny death's terror to control this basic anxiety. Based on his ideas regarding death anxiety, Greenberg et al. (1997) proposed terror management theory (TMT). The theory is empirically supported and explains the psychological functions of self-esteem and culture. It focuses on the fear of death and how this fear influences the thinking and behavior of humans. According to the theory, when people become aware of mortality-related thoughts, they strive to get rid of them by suppressing or denying their thoughts. Moreover, when such thoughts are active, people view themselves as having some value within their cultural system, which protects their self-esteem. Central to this theory is the anxiety buffer hypothesis, which holds that cultural world view and self-esteem as the buffering mechanisms are reinforced, people can protect themselves from death concerns (Greenberg et al., 1997).

The literature on terror management supports the role of institutions to which individuals belong, giving importance to work in their lives that becomes a

significant part of their identity, thus protecting their self-esteem. The developed identity and related beliefs strengthen people's sense of psychological security against death awareness. The theory suggests that those who meet the cultural standards of behavior stay protected from death concerns as their self-esteem is protected (Jonas et al., 2011). McCabe and Daly (2018) found that unemployment led to significant mortality related cognitions, whereas employment lowered the cognitions related to death. Therefore, the inability to meet cultural standards can lead to heightened mortality concerns. Research suggests that work status acts as a death anxiety buffer mechanism (Yaakobi, 2015). The anxiety buffer hypothesis ascertains that a psychological structure reduces death anxiety and acts as an anxiety buffer. If this psychological structure is strengthened, death-related thoughts are reduced. Therefore, one's work status is thought to act as an anxiety buffering mechanism, reducing mortality salience and death concerns (Milman et al., 2020).

Having death anxiety is a normal process; however, it can cause extreme fear and anxiety for some. In most extreme conditions, this anxiety prevents people from performing their daily activities and even going out of their homes. People also fear contamination that can lead to death. Seeing people die or being ill can also cause death anxiety and is also related to psychological distress (Shamim & Muazzam, 2018). Recent empirical evidence suggests that COVID-related behaviors (i.e. likelihood of contracting the virus and wearing a mask in public) were positively associated with death and health anxiety with an overall increase in psychological distress (Newton et al., unpublished). The current pandemic provides an opportunity for the researchers to define what role work status plays in creating behavioral and psychological vulnerabilities that worsen outcomes from crises like pandemics.

The literature suggests the relationship between death anxiety and work status as an anxiety buffer reducing death concerns. The relationship between death anxiety and psychological distress is also established. However, one aspect that has not been empirically investigated is the mediating role of work status as an anxiety buffer between death anxiety and psychological distress in the employed and unemployed people. Erikson (1950) defined work as a critical factor to human beings' healthy psychological functioning. The present study aimed to determine the role of work status in reducing peoples' death anxiety and associated psychological distress. Therefore, terror management theory is a well-positioned framework to

investigate the said phenomenon during the COVID-19 pandemic. It was hypothesized that (1) there would be a positive association between death anxiety and psychological distress, (2) work status would moderate the link between psychological distress and death anxiety.

## Method

The study was approved by the ethical review board of COMSATS University, Lahore with Ref. No. CUI/LHR/HUM/0150 on 15 March 2020.

### Research design and sample

In this correlational study, a sample of 540 was approached through an online Google form from April to May 2020. The study link was advertised through emails, social media (e.g. Facebook), and smartphone applications (e.g. WhatsApp). The study's link was directed to an online form where participants were provided the informed consent first. Participant's confidentiality was maintained by keeping their identity anonymous. Data was collected through convenient sampling, and according to the inclusion criteria, participants were only included in the study if they were: (a) residents and nationals of Pakistan, (b) have not been out of the country since the breakdown of the COVID-19 pandemic, (c) have not been referred for psychological services, (d) were living with intact families, (e) educated (can comprehend English), and (f) had no physical disability. The sample of this study comprises 468 literate participants from both genders (males = 215, females = 253), between 17 and 50 years ( $M = 29.71$ ,  $SD = 11.15$ ).

## Measurement

### Demographic information

This section comprised questions asking about nationality, locality, gender, age, marital status, family setup, work status, mental illness indicators, and monthly income.

### Psychological distress

Psychological distress was assessed by the self-reported Kessler's 10 items of Psychological Distress Scale-K10 (Kessler et al., 2003). K10 is a brief and comprehensive measure of psychological distress consisting of 10 items on emotional states. The sample item includes "In the past four weeks, about how often did you feel worthless." Each item is scored from 1 (*none of the*

time) to 5 (*all of the time*). Scores range between 10 and 50, with high scores indicating high psychological distress. Furthermore, scores may be categorized to estimate the likelihood of a psychological disorder: likely to be well (scores from 10 to 19), likely to have mild disorder (scores from 20 to 24), likely to have moderate disorder (scores from 25 to 29), and likely to have a severe disorder (scores from 30 to 50). Mean scores of K10 are considered a good indicator of the estimation of psychological distress. The Cronbach's alpha of K10 was noted as 0.88 for the study sample, which is a good indicator of internal consistency.

### **Death anxiety**

Death anxiety was measured with the 15-items self-report Death Anxiety Questionnaire (DAQ; Templer, 1970). High scores on the measure indicate more death anxiety and range between 15 and 75, further classified into low (15–35), moderate (26–55), and high (56–75) levels of death anxiety. Mean scores are a good indicator of the estimation of death anxiety. The current study utilized continuous scores rather than categories. Cronbach's alpha and split-half coefficients for DAS were reported as 0.76 and 0.87 respectively for a sample of older adults and college students (Conte et al., 1982). Moreover, the present study found it as 0.75.

### **Analysis plan**

Descriptive analysis was carried out to estimate the sample mean, standard deviation, frequencies, percentages, omega coefficient, kurtosis, and study variables' skewness. Pearson coefficients and moderation analysis were conducted to test the study hypotheses.

## **Results**

### **Preliminary Analysis**

As in an online study, inclusion-exclusion criteria cannot be strictly controlled; therefore, data was screened out for inclusion/exclusion criteria, outliers, and random responses in the first step. Outliers were identified following "threshold selection: extreme value analysis" (Cabrer & Morales, 2006), and missing values were treated by using "Replace with series Mean: Missing Values Analysis," followed by descriptive analysis.

### **Descriptive analysis of study variables**

Descriptive analysis revealed that all participants were Muslims and Pakistani from diverse areas of Punjab province, with dominance from Lahore (64%). Lahore is a multicultural city, and 70% of the residents have migrated from other parts of Pakistan and likely to represent a presentable region. The study sample comprised adolescents, young adults, and older adults, with the young adult group (84%) supplementing the estimates that 2/3 of Pakistan's population is below 30 years (Najam & Bar, 2017). Participant age ranged from 17 to 50 years, with a mean age of 29.71 ( $SD=11.15$ ). The sample was well proportionate across both genders (male 46%) with the dominance of single marital (78%) and work (64%) statuses. Fifty-eight percent of participants lived in a nuclear family, whereas 42% reported as living with joint families. To test the study sample's standard distribution, we also estimated skewness and kurtosis following Gravetter and Wallnau (2012) criteria, and values fall within the range from +2 to -2 (Table 1).

### **Link between psychological distress and death anxiety**

The next link between personal characteristics, psychological distress, and death anxiety was calculated. Correlation analysis demonstrated a significant negative link between gender, marital status, and work status. Psychological distress was moderately positively linked with death anxiety ( $r=0.343^{***}$ ,  $p<.001$ ). Overall, correlation coefficients ranged from weak to moderate.

### **Moderation analyses**

A regression model was applied to test the moderating link of work status in the relationship between psychological distress and death anxiety. The regression model was carried out with work status, and it showed a significant moderation effect between death anxiety and psychological distress (Table 2). The model explains that the link between psychological distress in working participants was steady, whereas, for non-working participants, it was strongly positive with high scores on psychological distress and death anxiety (Figure 1).

## **Discussion**

Findings of the present study indicate a significant moderating role of work status, illustrating the strong

**Table 1.** Descriptive of study variables.

Measures	N	f(%)	M (SD)	Min-Max	A	Kurtosis	Skewness
Psychological distress			21.20 (7.32)	15–45	0.88	0.74	0.22
Death anxiety			27.79 (6.05)	10–47	0.75	0.45	−0.36
Age (years)	468		29.71 (11.15)	17–49			
Adolescents	55	12	18.83 (4.33)	17–19			
Young adults	391	84	25.44 (4.89)	20–27			
Middle-aged adults	22	5	44.88 (11.92)	35–50			
Gender							
Female	253	54					
Male	215	46					
Marital status							
Single	373	78					
Married	95	20					
Family system							
Nuclear	270	58					
Joint	197	42					
Work status							
Working	301	64					
Non-working	167	36					

**Table 2.** Standardized regression weights illustrating moderating link of work status between psychological distress and death anxiety.

Measures	Work status		
	Model 1	Model 2	Model 3
P	0.34***	0.32***	0.05
M		−0.10*	−0.35**
P × M			0.37*
R <sup>2</sup>	0.34	0.35	0.37
Incremental R		0.01	0.02
Model fit	<i>F</i> (1,467)=62.28 <i>p</i> < .001	<i>F</i> (2, 266)=33.05 <i>p</i> < .001	<i>F</i> (3,465)=23.85 <i>p</i> < .001

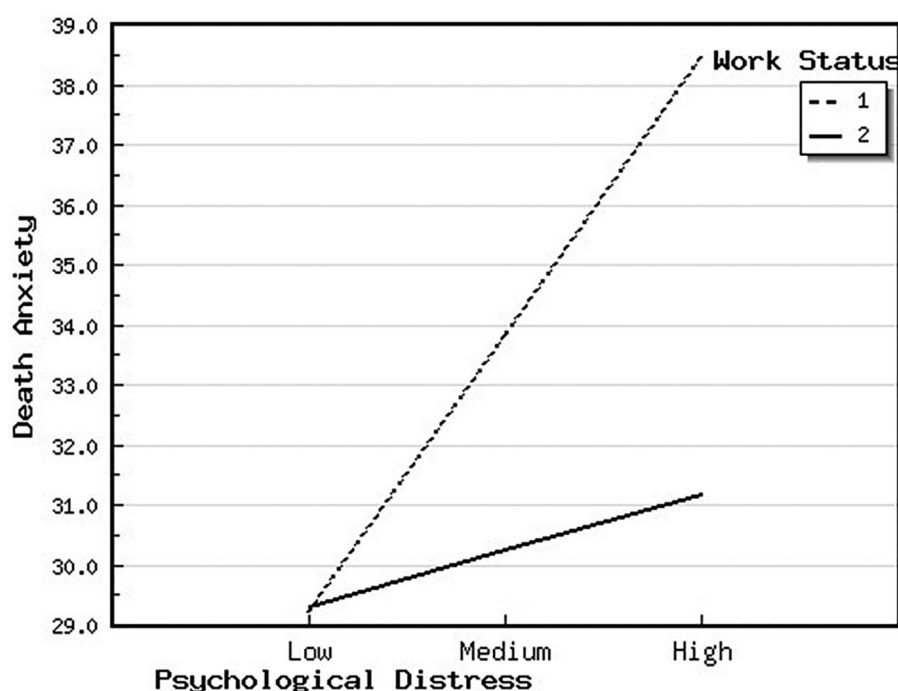
Note: P: predictor; M: moderator; Predictor: psychological distress; outcome: death anxiety; \**p* < .05; \*\**p* < .01; \*\*\**p* < .00.

relationship between psychological distress and death anxiety for non-working participants. Therefore, psychological distress is related to more significant death anxiety among non-working than those who are working. This study highlights the importance of work as a potential anxiety-buffering factor concerning mortality thoughts due to psychological distress during the COVID-19 pandemic. The present research highlights the importance of work as a buffering factor for psychological distress and death anxiety. Work has its importance in one's life; the organization in which one works also becomes a significant part of the person's identity. The workplace also has the potential to become part of the person's worldview. Particularly, terror management theory considers an individual's worldview, believing that the worldviews are supported to keep death anxiety at bay (Jonas et al., 2011). When the strong wish to stay alive collides with the reality of inevitable death, existential error affecting daily life functioning arises (Arshad & Muazzam, 2016). Standards in every culture are set, and people live according to those standards to maintain their self-esteem. When one is living up to those standards, it maintains cultural worldviews that act as

buffers to reduce anxiety by providing a sense of order, meaning, and permanence after death (Fritzsche et al., 2008).

People in their particular cultural context use anxiety buffers to avoid death anxiety. As aforementioned, if the strengthening of a psychological structure that protects against death anxiety makes one less prone to the awareness of death and anxiety-provoking thoughts in response to threat (Pyszczynski et al., 1997). The implication of the terror management theory in Pakistan during COVID-19 supports the theory in our culture. This study's findings follow the literature-based assumption that work status would act as an anxiety buffering factor and moderate the link between psychological distress and death anxiety. Work was found as an inhibitory factor in inducing death anxiety due to psychological distress during the COVID-19 pandemic. The present research results highlight the importance of work as a buffering factor for death anxiety due to psychological distress during the current pandemic. Yaakobi (2015) did not find culture playing a moderating role in using work as a terror management mechanism. The terror management theory applies to Pakistani culture equally as it applies to other cultures. Work status plays a central role in building one's self-concept, which reduces death-related thoughts due to psychological distress in salience conditions like the current pandemic. The identity that people have attached to their work status becomes more vital when they are aware of their mortality, thereby heightening their satisfaction with life (Shamim & Muazzam, 2018).

Throughout history, outbreaks of contagious diseases like the current COVID-19 have been associated with psychological distress and mental illness (Bao et al., 2020). The contributing factors to this



**Figure 1.** Moderating role of work status (1 = working, 2 = not working) between psychological distress and death anxiety.

psychological distress are the uncertainties, unpredictability, seriousness of the disease, myths, and social isolation due to lockdown. Due to the myths and misinformation about COVID-19 spread through media, people are experiencing health anxiety in this particular context (Arslan et al., 2020). As mentioned above, it is evident from the literature that death anxiety is a significant contributor to psychological distress in this pandemic. A recent study from China ascertains that mortality estimations did predict psychological distress, where participants estimated their survival to be very low, which predicted a high level of stress and depression in them (Wang et al., 2020).

A few limitations to this study should be discussed before generalizing the results. First, this study was conducted during the lockdown period in Pakistan and the data was collected online through a non-probability sampling technique. Our data was only limited to the internet users and educated population who could read and understand English because of being an online study. Data from people living below the poverty line or the elderly with no internet access could provide a more generalizable result. However, despite all limitations, this study is the pioneer in proving empirical evidence on the implications of terror management theory during the COVID-19 pandemic in Pakistan to the best of our knowledge.

Terror management provides a useful tool to understand how people can protect themselves from death anxiety. This investigation has fulfilled the same

purpose by utilizing the theoretical framework of terror management theory in the current context. The study highlights the work status's existential function. It focuses on the importance of employment as it does reduce anxiety-provoking thoughts related to death in relation to psychological distress.

### Disclosure statement

No potential conflict of interest was reported by the author(s).

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### References

- Abid, K., Bari, Y. A., Younas, M., Javaid, S. T., & Imran, A. (2020). Progress of COVID-19 epidemic in Pakistan. *Asia Pacific Journal of Public Health*, 32(4), 154–156. <https://doi.org/10.1177/1010539520927259>
- Arshad, A. S., Baloch, M., Ahmed, N., Arshad, A., & Iqbal, A. (2020). The outbreak of coronavirus disease 2019 (COVID-19)-an emerging global health threat. *Journal of Infection and Public Health*, 13(4), 644–646. <https://doi.org/10.1016/j.jiph.2020.02.033>
- Arshad, H., & Muazzam, A. (2016). Development and validation of grief scale for cancer patients. *Journal of Behavioral Sciences*, 26(1).

- Arslan, G., Yıldırım, M., & Aytaç, M. (2020). Subjective vitality and loneliness explain how coronavirus anxiety increases rumination among college students. *Death Studies*. <https://doi.org/10.1080/07481187.2020.1824204>
- Bao, Y., Sun, Y., Meng, S., Shi, J., & Lu, L. (2020). 2019-nCoV epidemic: Address mental health care to empower society. *Lancet*, 22(395), e37–e38. [https://doi.org/10.1016/S0140-6736\(20\)30309-3](https://doi.org/10.1016/S0140-6736(20)30309-3).
- Becker, E. (1974). *The denial of death*. Free Press.
- Cabras, S., & Morales, J. (2006). Extreme value analysis within a parametric outlier detection framework. *Applied Stochastic Models in Business and Industry*, 23(2), 157–164. <https://doi.org/10.1002/asmb.660>.
- Conte, H. R., Weiner, M. B., & Plutchik, R. (1982). Measuring death anxiety: Conceptual, psychometric, and factor-analytic aspects. *Journal of Personality and Social Psychology*, 43(4), 775–785. <https://doi.org/10.1037/0022-3514.43.4.775>.
- Erikson, E. H. (1950). *Childhood and society*. New York, NY: Norton. <https://www.opus4.kobv.de>
- Fritzsche, I., Jonas, E., & Fankhänel, T. (2008). The role of control motivation in mortality salience effects on ingroup support and defense. *Journal of Personality and Social Psychology*, 95(3), 524–541. <https://doi.org/10.1037/a0012666>.
- Gravetter, F. J., & Wallnau, L. B. (2012). *Statistics for the behavioral health sciences* (9th ed.). Wadsworth.
- Greenberg, J., Solomon, S., & Pyszczynski, T. (1997). Terror management theory of self-esteem and cultural worldviews: Empirical assessments and conceptual refinements. *Advances in Experimental Social Psychology*, 29(C), 61–139. [https://doi.org/10.1016/S0065-2601\(08\)60016-7](https://doi.org/10.1016/S0065-2601(08)60016-7)
- Ilyas, Z., & Muazzam, A. (2015). Development and validation of a general adjustment to the aging scale in Pakistan. *Journal of Arts and Social Science*, 2(2), 81–96.
- Jonas, E., Kauffeld, S., Sullivan, D., & Fritzsche, I. (2011). Dedicate your life to the company! A terror management perspective on organizations. *Journal of Applied Social Psychology*, 41(12), 2858–2882. <https://doi.org/10.1111/j.1559-1816.2011.00854.x>.
- Kessler, R. C., Barker, P. R., Colpe, L. J., Epstein, J. F., Gfroerer, J. C., Hiripi, E., Howes, M. J., Normand, S. L., Manderscheid, R. W., Walters, E. E., & Zaslavsky, A. M. (2003). Screening for serious mental illness in the general population. *Archives of General Psychiatry*, 60(2), 184–189. <https://doi.org/10.1001/archpsyc.60.2.184>.
- Lee, S. A. (2020). Coronavirus Anxiety Scale: A brief mental health screener for COVID-19 related anxiety. *Death Studies*, 44(7), 393–401. <https://doi.org/10.1080/07481187.2020.1748481>
- McCabe, S., & Daly, M. (2018). Work, love, and death-thought accessibility: A terror management investigation. *The British Journal of Social Psychology*, 57(4), 754–772. <https://doi.org/10.1111/bjso.12258>.
- Menzies, R. E., & Menzies, R. G. (2020). Death anxiety in the time of COVID-19: theoretical explanations and clinical implications. *Cognitive Behavior Therapy*, 13, e19. <https://doi.org/10.1017/S1754470X20000215>.
- Milman, E., Lee, S. A., & Neimeyer, R. A. (2020). Social isolation and the mitigation of coronavirus anxiety: The mediating role of meaning. *Death Studies*. <https://doi.org/10.1080/07481187.2020.1775362>
- Najam, A., Bar, F. (2017). *Pakistan national human development report unleashing the potential of a young Pakistan*. United Nations Development Programme. <https://annual-report.undp.org/2017/>.
- Pyszczynski, T., Greenberg, J., & Solomon, S. (1997). Why do we need what we need? A terror management perspective on the roots of human social motivation. *Psychological Inquiry*, 8(1), 1–20. [https://doi.org/10.1207/s15327965pli0801\\_1](https://doi.org/10.1207/s15327965pli0801_1).
- Shamim, A., & Muazzam, A. (2018). Gender differences in positive emotion. *Journal of Arts and Social Sciences*, 1, 125–137.
- Shamim, A., & Muazzam, A. (2018). Positive emotions and compliance as predictors in the management of type II diabetes. *Pakistan Journal of Social and Clinical Psychology*, 16(2), 27–33.
- Templer, D. I. (1970). The construction and validation of a Death Anxiety Scale. *The Journal of General Psychology*, 82(2d Half), 165–177. <https://doi.org/10.1080/00221309.1970.9920634>.
- Wang, C., Pan, R., Wan, X., Tan, Y., Xu, L., Ho, C. S., & Ho, R. C. (2020). Immediate psychological responses and associated factors during the initial stage of the 2019 coronavirus disease (COVID-19) epidemic among the general population in China. *International Journal of Environmental Research and Public Health*, 17(5), 1729. <https://doi.org/10.3390/ijerph17051729>.
- World Health Organization. (2020). *Coronavirus disease (COVID-19): Situation report – 117*. [https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200516-covid-19-sitrep-117.pdf?sfvrsn=8f562cc\\_2](https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200516-covid-19-sitrep-117.pdf?sfvrsn=8f562cc_2).
- Yaakobi, E. (2015). Desire to work as a death anxiety buffer mechanism. *Experimental Psychology*, 62(2), 110–122. <https://doi.org/10.1027/1618-3169/a000278>.