

**Depression in healthcare workers: influence of Fear of Death, Spirituality, and Religion.
Depresión en trabajadores de la salud: influencia del Miedo a la Muerte, la Espiritualidad y la
Religiosidad.**

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Resumen

La pandemia de COVID-19 ha incrementado las muertes alrededor del mundo. Argentina ha registrado un exceso de mortalidad del 10,6%, lo que generó una carga de trabajo considerable en el sector salud. Una de las principales consecuencias a las que estuvieron expuestos los trabajadores de la salud ha sido el desarrollo de síntomas de depresión. Para observar cómo el miedo a la muerte, la espiritualidad y la religiosidad influyeron en la posibilidad de desarrollar síntomas de depresión en la población de trabajadores de la salud, se utilizó un enfoque cuantitativo, transversal y de regresión en una población de 200 trabajadores de la salud, siendo el Miedo a la muerte la variable explicativa para entender el modelo.

Palabras claves

Depresión; Miedo a la Muerte; Espiritualidad; Religiosidad; Personal de salud.

Abstract

The COVID-19 pandemic has increased in a significant increase in global mortality rates, with Argentina experiencing a notable surge of 10.6% in deaths. Consequently, this surge has imposed a substantial burden on the healthcare sector. One of the main consequences to which health workers were exposed has been the development of symptoms of depression. To observe how fear of death, spirituality, and religiosity influenced the possibility of developing symptoms of depression in the population of health workers, a quantitative regression study was conducted on a sample of 200 healthcare workers, with Fear of death being the explanatory variable to understand the model.

Keywords

Depression; Fear of death; Spirituality; Religiosity; Health personnel.

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The COVID-19 pandemic has heightened the demand for healthcare professionals, leading to emotional and psychological outcomes among them. Babore (2020) found that healthcare professionals reported an increase in workload during the pandemic, which was associated with higher levels of stress and affected work engagement. Gungodan and Arpaci's research has shown that fear of COVID-19 was positively associated with depression and death anxiety, agreeing that levels of stress and reduced work engagement were due to the pandemic (Gundogan & Arpaci, 2022). Additionally, their study revealed that depression mediated the relationship between fear of COVID-19 and death anxiety. These results suggest that healthcare professionals experienced high levels of stress related to the outbreak and relied on a wide range of coping strategies to manage this stress, such as seeking social support and engaging in problem-solving activities (Candelori, 2020). According to Htay (2020), stigmatization, fear of being infected, and a lack of personal protective equipment are among the factors that had the greatest negative effects on mental health. In a study conducted by Lai (2020), it was found that fatigue was the primary symptom experienced by healthcare workers, which could be attributed to factors such as excessive working hours, consecutive working days, limited space, lack of resources, and stress. The study also reported a significant prevalence of anxiety, depression, insomnia, and distress among healthcare workers, with female healthcare workers, nurses, frontline workers, those with less work experience, and those who worked longer hours being more vulnerable to these symptoms. The co-occurrence of these experiences significantly increased the risk of not getting enough rest and potentially developing emotional exhaustion and depersonalization as burnout symptoms (Navinés 2021). In addition to fatigue, the COVID-19 outbreak has also been associated with increased symptoms of depression, such as sadness, loss of interest or pleasure, low self-esteem, and recurring thoughts of death or suicide (Arrom 2015; Kaplan 2015; Lai, 2020).

The COVID-19 pandemic has been associated to a heightened suicide risk among healthcare workers, stemming from their exposure to death and traumatic experiences. This exposure increases depression symptoms and, most significantly, the risk of suicide by desensitizing the experience of pain as a means to alleviate the fear of death (Chu, 2017). Additionally, while isolating oneself from family can reduce the risk of contagion, it can also increase the perception of loneliness and the risk of suicide (Reger, 2020). Thus, healthcare workers face a dilemma of choosing between taking care of their health or continuing to provide services at a critical moment, despite the risks they face (Reger, 2020). Healthcare workers with close contact with COVID-19 patients exhibited higher degrees of distress (Reger, 2020).

In the initial stages of the COVID-19 outbreak in China, 72% of healthcare workers reported experiencing general discomfort associated with symptoms of depression and anxiety, with 34% reporting insomnia. Similar to this case, studies highlighted symptoms of discomfort and mental health issues all

around the world, as seen in AlAteeq’s research where half of the participants presented depressive and anxiety disorders (AlAteeq, 2020). In addition to this, Abeldaño Zuñiga (2021) reported a similar scenario with a sample of healthcare workers taken in Latin American countries, where Chileans had the highest frequency of post-traumatic stress symptoms and death anxiety, with the Argentinian participants following closely in the sample. This aligns with another study conducted in the United States, where 43.1% of the respondents showed mild or higher anxiety and 31,6% reported insomnia.

Despite the challenges faced, not all healthcare workers experienced the same emotional impact. Factors such as fear of death, spirituality, and religion- may decrease or increase the risk of developing symptoms of depression.

Fear of death among healthcare workers

Gert (1995) defines death as the irreversible cessation of all observable functions of an organism as a whole and the loss of self-consciousness. According to Fernanda Et al. (2007), fear of death could be understood as the response to the stimulus of death, the loss of one’s self, pain, and uncertainty, as to what is supposed by what may or may not exist after death. Different studies have shown that people who experience a greater fear of death tend to manifest a greater risk of developing symptoms of depression. In a Turkish study, death anxiety was positively associated with depression (Krakus & Elveren 2021). Regarding the medical field, another study has shown that medical students who reported higher levels of death anxiety also had decreased psychological health and less favorable attitudes toward palliative care (Thiemann et al., 2015).

It’s important to note however, that health professionals report lower levels of fear of death compared to the general population. Specifically, they experience less fear of the unknown aspects of death, such as what happens after death and the process of dying, as well as fewer concerns about the consequences of death, including the fear of being separated from loved ones and associated physical pain. This suggests that the lower fear of death among health professionals could be attributed to the learning effect of working in the health field, as they are exposed to death and dying more frequently, which could desensitize them to the fear associated with these experiences. Additionally, health professionals are trained to manage the physical and emotional aspects of death and dying, which could lead to a greater sense of control and mastery over these experiences (Fuentes, 2016).

In this scenario, while health professionals express medium-low levels of fear of death and medium-high levels of resilience, an inverse relationship has been found between fear of death and spirituality, with

those who report higher levels of spirituality reporting lower levels of fear of death (Quiñones, 2018). However, even though it has been observed that spirituality and religion may serve as protective factors for mental health, studies that have addressed this topic have produced inconsistent findings (Simkin, 2017).

Spirituality, fear of death and mental health

According to Piedmont (2012), spirituality -also referred to as spiritual transcendence (Verbit 1970)- has been described as a motivation that drives human behavior, striving to build a more extensive sense of personal meaning. Numerous studies suggested that individuals who experience fear of death may also undergo a spiritual renewal process, which may serve as a coping mechanism. Additionally, different studies highlighted the potential role of existential well-being in spiritual experiences in mitigating the negative effects of fear of death (Kowalczyk, 2020). Therefore, higher levels of spirituality are frequently related to fewer symptoms of depression (Finck Barboza & Forero Forero, 2011; Gallardo-Peralta & Sánchez-Moreno, 2020). Gallardo-Peralta and Sánchez-Moreno (2020), reported significant and negative relationships between spirituality and anxiety in doctors and nurses, the latter demonstrating a better affinity for spirituality and coping with depressive symptoms. When examining other aspects of spirituality, fear of death was negatively related to spiritual thinking about life after death (Chow, 2021).

Consequently, Roman (2020) suggested that health workers require creating an environment that supports patients through spiritual connection. These promote independence through spiritual care by a compassionate presence, active listening of fears, desires, and dreams, obtaining a patient's spiritual history, and attending to all spheres of their life. Tüzer's (2020) study emphasized the significance of nursing education in delivering spiritual care and proposed that nursing students' attitudes toward death and spirituality could influence their capacity to provide spiritual care to patients. The findings of the study indicated that nursing students with more positive attitudes toward death exhibited higher levels of spirituality. However, they lacked confidence in providing spiritual care to patients.

However, another study suggested that individuals who reported higher levels of death anxiety were more likely to report experiences that involved a sense of connection to an order larger than themselves. Such experiences could include feelings of connectedness to nature, other individuals, or a higher power (Piedmont, 2012). On the other hand, the study conducted by Shenese, (2009) concludes that there is no substantial evidence of a relationship between spirituality and depression. Spirituality has demonstrated both positive and negative associations with mental health; however, certain studies have not identified significant correlations (Koenig et al., 2012).

Religion, fear of death and mental health

Religion differs from spirituality as the former results in the latter shaping through different religious organizations (Piedmont, 2012; Simkin & Piedmont, 2018). While spirituality has been identified as a potential protective factor against depression, certain religious beliefs may not effectively mitigate the fear of death. Yang's research investigated the association between religious attendance and depressive symptoms in South Korea (Yang, et al., 2021). The study reported a negative relationship between religious attendance and depressive symptoms, partially mediated by social support and a sense of belonging. However, Bassett (2021) reported that certain religious beliefs were found to be ineffective in attenuating the fear of death. Furthermore, King et al. (2013) suggested that individuals with a spiritual understanding of life exhibited worse mental health outcomes than those who were not inclined towards spirituality or religion, although attendance at religious services was not significantly associated with these outcomes. Skirbekk (2017) reported several factors were positively associated with depression among older adults. Regarding religiosity, certain aspects appear to have a positive association, while others exhibit a negative relation; specifically, attending religious services regularly was associated with a lower risk of depression, while highly religious individuals were more likely to experience depression (Skirbekk, 2017). Moreover, the study revealed that women reported higher levels of depressive symptoms than men. Finally, the study concluded that while spirituality might be a protective factor against depressive symptoms in older adults, religiosity may not have a significant impact. The findings suggested that social support and having a sense of purpose in life may prevent symptoms of depression (Skirbekk, 2017). Interestingly, some research has suggested that women who practice Buddhism are more likely to develop symptoms related to anxiety and depression (Lay, 2020). Koenig et al. (2012) conducted a comprehensive review of mental health studies, revealing mixed results. While religion has been associated with mental health in both positive and negative ways in certain cases, other studies have failed to identify a significant association between them (Malinakova, 2020; Koenig H, 2012).

Fear of death, mental health and the numinous variables

Relationships between religion, spirituality, and mental health has garnered significant attention in the scholarly realm, as evidenced by the extensive corpus of literature available. However, despite the abundance of research, a consensus has yet to be reached regarding the precise nature and underlying mechanisms of these associations. The essential inquiry that persists revolves around the intrinsic association

between religion, spirituality, and mental health, as well as the potential influence of other variables on their interrelationship. The complexity of this issue necessitates a nuanced examination of the multidimensional factors involved. According to Piedmont and Wilkins (2020) a deeper understanding of the connections among spirituality, religion, and mental health can be achieved by recognizing that these constructs may represent specific manifestations of fundamental human motivations. The authors have identified three essential numinous drives: Infinitude, which pertains to our quest for personal resilience in life's pursuits; Meaning, which encompasses our search for purpose and direction; and Worthiness, involving the attainment of self-acceptance from a transcendent perspective. Building upon existing literature, it is plausible to consider that religion and spirituality may serve as reflections of the latent numinous dimensions, with these underlying dimensions driving associations with other variables (Piedmont & Wilkins, 2020).

Hence, since there is no consensus regarding how these variables are associated, the present study aims to explore the link between spirituality, religiosity, fear of death, and depression in health personnel in the local context.

Method

Participants

The sample consisted of 200 healthcare workers from public and private hospitals in Buenos Aires (Argentina), including 125 women (62.5%) and 75 men (37.5%). The ages of the participants ranged from 21 to 72 years ($M= 42.03$; $SD= 10.89$). Participation was voluntary and anonymous through an online form, complying with the codes of ethical conduct established by the National Council for Scientific and Technical Research (CONICET) (Res. D No. 2857/06).

Instruments

Abbreviated Fear of Death Scale

The Abbreviated Fear of Death Scale (BFODS-SF; Collett-Lester, 1969) is a self-administered questionnaire that consists of eight items grouped in two dimensions: fear of one's death (eg, "What it will be like to be dead") and fear of the death of others (eg "The loss of a loved one"). The scale presents a Likert-type response format with five anchors ranging from 1 (Not at all) to 5 (A lot). For the present study, the version used was the one validated in the local context by Simkin and Quintero (2017).

Assessment of Spirituality and Religious Sentiments scale Short Form

The Assessment of Spirituality and Religious Sentiments scale Short Form (*ASPIRES-SF*; *Piedmont et al., 2008*) includes 13 items that assess two dimensions: spiritual transcendence (eg, "Although some people may be difficult, I feel an emotional bond with all of humanity.") and religious sentiments (eg, "How often do you read the Bible / Torah / Gita?"). The scale presents a Likert-type response format with the anchoring of five to seven responses according to the degree of agreement of the participants. A version of the technique adapted and validated in the local context by Simkin and Piedmont (2018) was administered.

Patient Health Questionnaire

The Patient Health Questionnaire (*CSP-9*; *Kroenke et al., 2010*) is a brief self-report measure that assesses the presence and severity of depressive symptoms, made up of 9 items (e.g. "Little interest or pleasure in doing things"). The scale presents a Likert-type response format that ranges from 0 (No, not at all) to 3 (Almost every day). In the present study, the version adapted to the local context by Matrángolo, et al. was used (2022).

Procedure

Statistical analyzes were performed using IBM SPSS Statistics 25, the goodness of fit for the regression models considered R as an indicator of the effect size and R² corrected as an indicator of the total variance, the assumptions of multicollinearity, homoscedasticity of the residuals, and no autocorrelation of the model to confirm its goodness of fit (Freiberg Hoffmann & Fernández Liporace, 2015). The Durbin-Watson statistic was used to examine non-autocorrelation, with possible values ranging from 0 to 4. Likewise, for the diagnosis of multicollinearity, the condition index and the variance inflation factor (FIV), the first below 30 and the second below 10 (Freiberg Hoffmann & Fernández Liporace, 2015).

Results

Backward stepwise regression analysis was used to address the research question. A model was obtained in which Depression was predicted by Fear of Death. As can be seen in Tables 1 and 2, the model's goodness of fit has been verified.

Table 1

Model statics

<i>R</i>	<i>R²</i>	<i>R2 adjusted</i>	<i>Durbin-Watson</i>
0.254	0.065	0.050	2.102

Table 2

Multicollinearity Index

	<i>Condition index</i>	<i>VIF</i>
REL	3.958	1.415
FOD	9.806	1.163
SPI	15.119	1.482

Note. REL= Religious sentiments; FOD= Fear of death; SPI= Spiritual transcendence

Results show that, while analyzing the effects on Depression, Fear of Death appears as the explanatory variable to understand the model.

Table 3

Regression Coefficients of the model

	<i>B</i>	<i>IC 95%</i>	<i>SE</i>	<i>Beta</i>	<i>t</i>	<i>Sig.</i>
FOD	.269	[.088; .450]	.092	218	2.931	.004

Note. FOD= Fear of death

Discussion

The present study aimed to explore whether Fear of death, Religiosity, and Spirituality impact Depression among health personnel working in public and private hospitals in Buenos Aires, Argentina, within the context of the COVID-19 outbreak.

Results show that fear of death explains to a greater extent the risk of developing symptoms of Depression, as the exposure to death, pain, illness, and the normalization of the same on a day-to-day basis serves as triggering factors that increase mental stress. This finding is in line with the research conducted by Chu (2017) which supports the idea that exposure to death and illness can lead to mental health challenges such as depression. Moreover, as Reger (2020) observed, healthcare workers were subjected to a complex

situation: those who were patients at risk could have exposed themselves to contagion and, consequently, experienced greater Fear of Death, or, instead, faced isolation reducing contagion, but also increasing the feeling of loneliness and depressive symptoms. Therefore, Fear of Death increased the risk of experiencing COVID-19 disease, feelings of hopelessness, loneliness, frustration, stress, and depression in healthcare workers (Sakib 2021).

However, contrary to the findings of Finck Barboza and Forero Forero (2011), this study observed no relationship between the variables of Religiosity and Spirituality with Depression, aligning with previous studies (Shenese, 2009; Skirbekk, 2017). Therefore, it is important to note that Depression cannot be attributed to Religiosity. This observation leads to the inference that religious perspectives do not serve as an effective coping mechanism within the context of this study. Moreover, the findings indicate that Spirituality does not exert a detrimental influence on Depression either, thereby deviating from the existing literature (Chow, 2021; Kowalczyk, 2020; Yang et al. 2021).

The findings of this study gain substantial significance when viewed from a numinous perspective (Piedmont & Wilkins, 2020). The numinous, as a fundamental dimension of personality, transcends religious or non-religious beliefs, encompassing individuals across the belief spectrum, including atheists, agnostics, and those with non-traditional beliefs. Within this conceptual framework, a fundamental aspect that arises is the exploration of existential engagement, particularly regarding the interpretation of death as either a definitive ending or otherwise. This critical inquiry serves as the cornerstone of our investigation. The study's results reveal that existential motivation emerges as the primary predictor of Depression, surpassing the influence of Religion or Spirituality, and underscoring the significance of the numinous. While previous studies have demonstrated varying associations between Spirituality, Religion, and mental health, it is plausible that they reflect manifestations of the underlying latent numinous dimensions. Thus, future research endeavors may benefit from incorporating numinous variables to enhance our understanding of the intricate relationship between Religion, Spirituality, and mental health.

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