

The Influence of Death Reflection on Existential Well-Being: The Mediating Role of Relational Self-Esteem

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Abstract

Global challenges like epidemics, wars, and climate change expose humans to life-and-death threats daily, triggering death anxiety and subsequent death reflection, which involves deliberate cognitive processing of mortality. While some studies have shown the positive impacts of death reflection, such as on well-being, the relationship between death reflection and existential well-being, closely related to life and death, remains unexplored. This study aimed to investigate the effects of death reflection on existential well-being and the mediating role of relational self-esteem. 675 university students from Sichuan and Hubei, China, completed the death reflection scale, relational self-esteem scale, and the existential well-being subscale of the spiritual well-being scale. Results indicated that death reflection was positively correlated with both relational self-esteem and existential well-being, and relational self-esteem was positively related to existential well-being. Mediation analysis confirmed that relational self-esteem mediated the relationship between death reflection and existential well-being. This study not only enriches the research content on the positive effects of death reflection theoretically, but also holds significant practical value in guiding individuals who have experienced death or been exposed to death-related information in their psychological reconstruction and recovery.

Keywords: *Death Reflection; Existential Well-Being; Relational Self-esteem*

1 INTRODUCTION

The film *Cast Away*, depicts the story of a man, Chuck Noland, who is stranded on a deserted island and shares with the audience his reflections made on life during those years. The film's title is translated as the Chinese idiom "Rebirth After Disaster" in China, referring to the potential positive influences disasters may have on the growth of an individual. Since the outbreak of the COVID-19 pandemic, anxieties and paranoia revolving around death have skyrocketed^[1]. However, if guided in the right direction, the previously anxiety-provoking death awareness can instead result in a more positive phenomenon termed as "death reflection."

Death reflection is a cognitive process in which an individual rationally ponders the positive notions of death, including the specific behavioral intentions in order to achieve a more positive perspective^[2]. The positive effects of such a process have been pointed out in previous research. For example, in developing an experimental method to manipulate death reflection, Cozzolino et al found that initiating the aforementioned process in subjects generally led to then adopting more intrinsic goals and altruistic behavior^[3]. Utilizing the same method, other researchers have discovered that death reflection is able to enhance gratitude^[4], promote self-integration^[5], increase individuals' willingness to donate blood^[6], and improve body image in women^[7]. Yuan et al developed the Death Reflection Scale, and subsequently were able to show that death reflection was positively related to firefighters' life satisfaction^[2]. Using the same scale, Zhong et al and Curşeu et al discovered that death reflection was positively associated with pro-diversity behavior, and served to mitigate the relationship between death anxiety and negative emotions^{[8][9]}.

Though previous studies have documented some of the positive effects of death reflection, they have yet to explore the relationship between the aforementioned subject and existential well-being, a matter equally intertwined with life

and death. This paper seeks to extend the current knowledge base by examining the correlation between the two, while also exploring the potential mediating role of relational self-esteem in such a relationship. Probing the relationship between these two aspects and their underlying mechanisms has great potential not only to enrich our understanding of the positive effects of death reflection, but also to incorporate important practical implications on how to properly guide the public's psychological reconstruction and recovery during the post-pandemic period.

1.1 Death Reflection and Existential Well-being

Existential well-being, one of the dimensions of spiritual well-being, refers to the sense of meaning, value, and satisfaction that individuals have with life and living^{[10][11]}. Available indirect evidence supports this hypothesized relationship between death reflection and existential well-being. For example, Shirkavand et al's study with elderly cancer patients revealed that spiritual well-being was negatively associated with death anxiety^[12]. Rababa et al found that spiritual well-being could accurately predict the level of death anxiety stemming from the pandemic^[13]. Cozzolino further suggested that death anxiety and death reflection function respectively as the "cold" and "hot" systems of the death awareness system, with them inducing opposite effects to some extent^[14]. Taken together the above findings suggest that death anxiety is negatively correlated with spiritual well-being, which indirectly implies that death reflection and spiritual well-being may be positively correlated.

On a related note, Cozzolino et al suggest that death reflection is a state of death awareness that is characterized by near-death experiences^[3]. Posttraumatic growth and near-death experiences both focus on the positive aspects of death awareness, which include the actual death experience, life review, and taking the perspective of others. Cozzolino's review also divulges the potential capacity for posttraumatic growth and near-death experiences to engender a shift in one's individual values, allowing them to understand themselves on a deeper level, thus finding a more substantial meaning of life^[14]. Certain studies have validated the eventual posttraumatic growth in individuals who have had near-death experiences. When Khanna and Greyson asked 224 subjects to share their near-death experiences and complete Spiritual Well-Being Scale, they found that the depth of the reported near-death experience was positively correlated with the depth of assessed spiritual well-being^[15]. Stallard et al found that the COVID-19 created a situation in which caregivers had to thrive in the face of trauma, with them in turn reporting positive growth in a number of respects, chief among these being more appreciation of family relationships and life in general along with increased spirituality^[16]. Mostarac and Brajković discovered through working with cancer survivors that posttraumatic growth was positively associated with the existence of life, meaning as well as satisfaction^[17].

These and related findings lead us to posit the existence of a meaningful correlation between death reflection and spiritual well-being. Ellison distinguished two dimensions of spiritual well-being, one concerned with "religious" well-being, with the second one absent a religious focus and termed "existential" well-being^[18]. As this study was conducted within a Chinese context, we were unable to account for the variable of religious well-being due to China being primarily atheist-dominated. Therefore, I have restricted this study focus upon existential well-being and the degree to which it may be positively correlated with individuals' death reflection.

1.2 The Mediating Role of Relational Self-esteem

Relational self-esteem derives from the relational self, which consists of an individual's evaluation of their value in relationships with significant others^[19]. It is important to note that the way death reflection is measured implicitly suggests that connection to significant others is an essential component of death reflection. The method Cozzolino et al developed to instigate individual death reflection includes the immersion of an individual in the death reflection of a fire scene^[3]. After such an immersion, the subject is asked four questions. The question, "How do you feel your family would react if it did happen to you?" corresponds to one of the elements of relational self-esteem: family. The Death Reflection Scale developed by Yuan et al, which includes three questions that focus on the dimension "connection to others," further illustrates that individuals think of significant others when they reflect on death^[2]. These provide indirect evidence of the relationship between death reflection and relational self-esteem. When studying children in rural China whose parents were infected with HIV, Du et al found that relational self-esteem was positively related to meaning in life and life satisfaction^[20]. Chaiviboontham et al. and Paloutzian and Ellison believe that existential well-being is individual meaning, value, and satisfaction of life^{[10][11]}. Taken together, I further proposed

that relational self-esteem plays a mediating role between death reflection and existential well-being.

1.3 The Current Study

In order to address some of the gaps within the extant literature, this study was designed to explore the relationship between death reflection and existential well-being in greater depth, as well as investigate the mediating role of relational self-esteem. I hypothesized that death reflection and existential well-being would be positively correlated and that relational self-esteem would play a mediating role in this relationship.

2 METHOD

2.1 Participants and Procedure

A total of 750 university students were recruited in Sichuan and Hubei in China. All participants provided informed consent, and the confidentiality of their responses was assured. After eliminating 75 invalid participants, the final sample consisted of 675 students (519 females, 154 males, with 2 not reporting their gender; $M_{\text{age}}=19.44$, $SD=1.34$, with 41 not reporting their age).

2.2 Measures

2.2.1 Death Reflection Scale

Death Reflection was evaluated with the 15-item scale developed by Yuan et al^[2]. An example item is: “When I think about death, I feel a strong urge to help other people.” Participants are asked to respond to each item on a 5-point Likert scale (1 = “strongly disagree” to 5 = “strongly agree”), wherein total higher scores represent a greater level of death reflection. The scale developers documented the psychometric soundness of this measure. Cronbach’s alpha for this administration of the scale was 0.87.

2.2.2 Relational Self-esteem Scale

Brewer and Gardner’s tripartite model of the self distinguishes three aspects—personal, relational, and collective, which together provide a sense of an individual’s self-worth^[21]. I focus is on relational self-esteem, which concerns the extent of the relationship one has with significant others. The Chinese version of the Relational Self-Esteem Scale, originally developed by Du et al, was used to measure relational self-esteem^{[19][22]}. This scale, which has established reliability and validity, includes 8 items (e.g., “I feel I have much to offer to my family”) to which participants respond on a 4-point Likert-type scale (1 = strongly disagree, 4 = strongly agree), with higher mean scores indicating higher levels of relational self-esteem. Cronbach’s alpha for this administration of the measure was 0.86.

2.2.3 Existential Well-being Scale

The Existential Well-Being subscale of the Spiritual Well-Being Scale was used to measure participants’ levels of existential well-being^[11]. In completing this measure participants respond to 10 items (e.g., “I don’t enjoy much about life”) on a 6-point Likert scale (1 = strongly disagree, 6 = strongly agree), with higher total scores indicating higher levels of existential well-being after items are reverse scored. Good reliability was found in this study (Cronbach’s alpha = 0.85).

2.3 Statistical Analysis

The Statistical Package for Social Sciences (SPSS) 25 and Process macro were used to analyze the data^[23]. Pearson Correlation coefficients were used to measure the relationship between death reflection, relational self-esteem, existential well-being, and demographic correlates. The process macro in model 4 was used to test the hypothesized mediating effect.

3 RESULTS

3.1 Common Method Biases Test

Because all of the data were collected via participants’ self-report, the Harman single factor was conducted to control

for potential common method biases^[24]. A total of 8 factors with an eigenvalue greater than 1 were extracted, with the interpretation rate of the first factor being 26.10%. The interpretation rate of the first factor was less than 40%, which indicated no serious common method biases were present in the survey.

3.2 Descriptive Analysis and Correlations

Means, standard deviations, and Pearson correlation coefficients among study variables are shown in Table 1. Death reflection was positively correlated with relational self-esteem and existential well-being. Relational self-esteem was positively correlated with existential well-being, as well.

TABLE 1 DESCRIPTIVE ANALYSIS AND CORRELATIONS

	<i>M</i> ± <i>SD</i>	1	2	3	4
1. Age	19.44±1.34	1			
2. Gender ^a	1.77±0.42	-0.43***	1		
3. Death reflection	54.40±9.17	-0.01	0.03	1	
4. Relational self-esteem	3.04±0.46	0.01	0.01	0.32***	1
5. Existential well-being	40.71±7.41	0.00	-0.05	0.31***	0.66***

Note. a: male = 1, female = 2; ****p* < .001.

3.3 Mediating Analysis

The PROCESS macro for SPSS (Model 4), incorporating bias-corrected bootstrap tests derived with 500 samples^[23], was used to explore whether relational self-esteem was the mediating variable between death reflection and existential well-being. The results showed that death reflection positively predicted relational self-esteem ($\beta = 0.32$, $p < 0.001$), which in turn positively predicted existential well-being ($\beta = 0.62$, $p < 0.001$). The direct effect was also significant ($\beta = 0.11$, $p < 0.001$). Therefore, relational self-esteem played the mediating role in the link between death reflection and existential well-being (indirect effect = 0.20, 95% CI = 0.14 to 0.26), accounting for 62% of the total effect.

4 DISCUSSION

This study confirmed the positive association between death reflection and existential well-being for the first time and revealed the mediating role of relational self-esteem. Individuals' death reflection not only enables them to understand their lives' meaning, value, and purpose, but also enhances their life satisfaction. This result aligns with previous research findings that individuals who have had near-death experiences and/or post-traumatic growth change their perspective on life, find their life meaning and value, and have increased personal spiritual growth^[14].

Additionally, relational self-esteem was found to be a mediating variable between death reflection and existential well-being. Individuals with higher levels of death reflection will perceive higher levels of relational self-esteem and, in turn, higher levels of existential well-being. The initiation procedure for death reflection designed by Cozzolino et al and the Death Reflection Scale developed by Yuan et al both assess connections to significant others, which implies that connections to significant others are an important component of death reflection as well^{[2][3]}. My study findings are consistent with this implication. Also, previous studies have revealed the positive effects of relational self-esteem on participants' meaning in life and life satisfaction^[25], and my study also found positive effects of relational self-esteem on existential well-being.

5 CONCLUSION

This research was a quantitative study involving 675 college students from Sichuan and Hubei, China. It utilized a questionnaire-based approach to investigate the influence of death reflection on college students' existential well-being and to determine whether relational self-esteem acts as a mediation variable in this relationship. The research instruments included the Death Reflection Scale, the Relational Self-Esteem Scale, and the Existential Well-Being subscale of the Spiritual Well-Being Scale.

This study unveiled a significant positive correlation between death reflection and existential well-being among college students. Specifically, a higher degree of death reflection was associated with a greater level of existential well-being.

Intriguingly, relational self-esteem was found to serve as a mediation role in this relationship.

These findings of this research also have significant implications. In theory, this study empirically examines the relationship between death reflection and existential well-being. Although the two variables are both closely associated with life and death, very few studies have attempted to explore their relationship. This study helps to fill this gap and enrich the content of death reflection's positive effect. Moreover, exploring the mediating role of relational self-esteem serves both to enrich the content of relational self-esteem and reveal its antecedents and consequences.

In practice, these findings can be used to help guide people's psychological reconstruction and recovery in the post-pandemic period. On the one hand, we need to guide people to reflect on death, so that they can find their interpretations on the meaning and value of life and thus enhance their satisfaction with life. On the other hand, relational self-esteem is a mechanism variable for death reflection and existential well-being. Previous studies have also found that relational self-esteem has a unique role in terror management^[26]. This suggests that enhancement of an individual's relational self-esteem does not merely aide in coping with the death anxiety, but also increases the positive effects of the death reflection occasioned by such an event. Therefore, it is important to pay attention to the influencing factors of individuals' relational self-esteem, and psychological assistance or psychological interventionists should pay attention to the enhancement of individuals' relational self-esteem in order to increase the positive effect on two kinds of death awareness.

In addition, as this study was exploratory in nature, certain limitations are inherent and warrant consideration in follow-on studies. First, as this study, by design, relied upon questionnaire method, claims of causality and directionality cannot be entertained. Future research could use longitudinal studies or experimental studies to explore their causality. Second, practical considerations led us to limit this first study to college students, which limits the extent to which my findings can be generalized to other populations. One such variable concerns age, as shown in the work of Yuan et al, who found that the impact of death reflection on career satisfaction among firefighters varied as a function of age^[2]. Thus, examinations of the effect of death reflection on existential well-being in more diverse groups of subjects are needed.

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