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RELATIONSHIP BETWEEN MORAL INTELLIGENCE AND MEANING OF LIFE WITH DEATH ANXIETY IN RESCUE PERSONAL OF SARI CITY

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ABSTRACT

The present paper was an attempt to investigate the relationships among moral intelligence, meaning of life and death anxiety in auxiliary forces in Sari County in 2013-2014. For the research implementation, the cross-correlation technique was used and the population under study consisted of all the relief and rescue workers engaged in operating segments and performed relief operations during incidence times. The data were gathered using Moral Intelligence Scale (Link & Kiel, 2005), Purpose-in-Life scale (PIL) (Crutnbaugh & Maholic, 1969) and Death Anxiety Scale (Templer, 1970). The collected data were statistically analyzed performing Pearson correlation and multiple regression analysis using SPSS. The findings indicated a significant negative relationship among moral intelligence, meaning of life and death anxiety in auxiliary forces. In addition, Pearson correlation analysis revealed that of the ten components defined for moral intelligence, the three components of telling the truth, standing up for what is right and embracing responsibility for serving others have a significant negative association with death anxiety.

Keywords: *Moral Intelligence, Meaning of Life, Death Anxiety, Relief and Rescue*

INTRODUCTION

One of the most important human issues concerning death and dying is fear of death or "death anxiety" (Morin & Welsh, 2006). Death anxiety is not only real, but also it is one of the most important components of mental health and according to Pinkorat and Silbersen (Vafai *et al.*, 2011), it could be influenced by one's personal values, as well as one's purpose and meaning in life. Value system is defined as the innermost layer of personality and identity, forming the basis of attitudes and behaviors and it is one way or another regarded a tool and purpose which influences one's behavioral and moral orientations toward his decision-making.

According to existentialist perspective, the one who does not find any meaning for the dynamics of his life, would be preoccupied with inexistence threat called fear of death. When death anxiety serves as a driving force, it would make people live life to the fullest and it becomes a natural part of the person (Gelown, 1970; as cited in Karimi, 2012). Heidegger (1962) considers death anxiety as part of the meaningful existence which creates a meaningful life. In this approach, facing death assists people to be alive. Death is a driving force for a perfect life and help people live life with all their strength. It is a motivational self-help type approach (Karimi, 2012). Therefore, life's meaningfulness could be considered as a contributing factor to death anxiety.

Meaning of life refers to the content people provide their life with. It is a meaning that leads lives and is in line with the purposes and values in life. Baumeister (1991) holds the idea that one can feel to have a meaningful life so long as his four needs for meaning are satisfied. These four main needs include 1) a sense of purpose 2) efficacy 3) value and justification 4) a sense of positive self-worth (Nasiri & Jokar, 2008).

One of the variables that can have a significant impact on making life purposeful and developing moral values is moral intelligence. Beheshti and Mohamad (2012) believe that moral intelligence makes life purposeful and reinforces appropriate behavior and it is also able to provide a stable community life over time. Moral intelligence is defined as the ability to distinguish between rights and wrong based upon

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universal principles. This type of intelligence in the today's modern global world can serve as a compass for action. Moral intelligence not only builds a strong and viable framework for human activity, but also it has many applications in the real world. In fact, this type of intelligence leads human intelligence into doing valuable things (Beheshti *et al.*, 2011). In today's world, people with high moral intelligence can build up trust and commitment in organizations. These two components are an important tool in some organizations as Search and Rescue organization. Since Iran is one of the several countries where different natural disasters occur, Red Crescent Organization with constant effort and by creating various units such as Rescue and Relief unit is continuously attempting to help injured victims. Hence, disregard of these two important features makes serving as a rescuer very exhausting and sometimes impossible. To this end, the researcher sought to answer the following question: is there any significant relationship among moral intelligence, meaning of life and death anxiety in auxiliary forces in Sari County?

MATERIALS AND METHODS

The research technique employed was cross-correlation. The population studied consisted of all the 108 auxiliary forces in Sari County, Iran (employed in operational departments of rescue and firefighting team organization). Since the statistical population was very limited, the research sample was comprised of all the members of the population. The instruments adopted include:

- Templer's Death Anxiety Scale (DAS): this scale was developed in 1970 and includes 15 correct-or-incorrect-alternative-response items assessing the test takers' attitudes toward death. For correct or incorrect responses, scores 0 or 1 are awarded. 1 is when the testee's response is an indicator of death anxiety and 0 when it does not reflect death anxiety. The rating scale for questions 1, 4, 8, 9, 10, 11, 12, 13 and 14 is that it is awarded 1 for the correct alternative and 0 for incorrect alternative. While questions 2, 3, 5, 6, 7 and 15 are inversely scored meaning that 0 is awarded for choosing the correct alternative and 1 for the incorrect alternative. The scores range from 0 (absence of death anxiety) to 15 (high death anxiety) and the average score (6-7) is regarded as the cutoff point and 7 to 15 show high death anxiety whereas less than that (0-6) indicates low death anxiety. Studies on the reliability and validity of this scale in the original culture reported a test-retest reliability of 0.83, a concurrent validity (by its correlation with Manifest Anxiety Scale) of 0.27 and (by its association with Depression Scale) 0.40 (Templer, 1970). The reliability and validity of this scale was also estimated in Iran by Rajabi and Bohrani (2001). They reported an internal consistency of 0.73. The internal correlation between even and odd questions was examined using Kuder-Richardson formulas and the correlation coefficients was obtained to be 0.86 (Rajabi & Bohrani, 2001).
- Purpose-in-Life scale (PIL): it was developed by Crutnbaugh and Maholic (1969) and tends to assess existential captivity experience or meaning. It includes 20 questions and the test taker fills out the answer sheet choosing from 1 to 7 based on his agreement with the items provided. The total score is defined as the sum of the individual item scores. The scores range from 20 to 140. Scores below 50 indicate lack of purpose and meaning in life or existential captivity while the scores above 50 show a strong sense of purpose in life. This questionnaire was normalized and translated for the first time in Iran by Cheraqi *et al.*, (2008). The reliability reported was 0.92 using Cronbach alpha that is a high reliability (Cheraqi *et al.*, 2008).
- Lennik and Kiel's Moral Intelligence Questionnaire: it was first developed by Lennik and Kiel (2005). This 5-point Likert scale questionnaire is comprised of 40 items and the alternatives ranges from never, rarely, sometimes, often to always. The reliability and validity of the test have been approved by Martin and Austin (2010). It was translated into Farsi and English and again into Farsi by Arasteh *et al.*, (2010) for greater reliability; and the reliability was reported to be 0.897 using Cronbach's alpha. The face and content validity and internal consistency and its components were established by experts. The highest association was shown to exist between moral intelligence with forgiveness and compassion with 0.86 correlation coefficients and the lowest association was reported to exist between moral intelligence with the components of telling the truth (0.64), accountability (0.81), compassion (0.84) and forgiveness (0.83) which all have 80% correlation with each other. That could be called moral intelligence.

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RESULTS AND DISCUSSION

Results

Taking into account the purpose of the study i.e. the relationship among moral intelligence, meaning of life and death anxiety in auxiliary forces in Sari, the parts of tabular data are elaborated in the following:

Table 1: Results of the regression modeling among moral intelligence, meaning of life and death anxiety

Variable	Parameter estimation	Std. Deviation	t-statistic	P-value	F-statistic	P-value
Fixed regression	11.200	1.967	5.695	0.000	3.815	0.025
Moral intelligence	-0.26	0.028	-0.924	0.081		
Meaning of life	-0.26	0.015	-1.762	0.355		
Correlation coefficient	0.26					
Coefficient of determination (R^2)	0.068					
Adjusted coefficient of determination (R_{2adj})	0.050					
Durbin-Watson test	2.179					

As is seen in table 1 above, the F-statistic and P-value ($F=3.815$, $P=0.000$) indicate a linear correlation among moral intelligence, meaning of life and death anxiety. In other words, fitting a regression model based on the given variables is possible. Furthermore, the results of Student’ T-test and the obtained significance probability (P-value) for each of the regression coefficients imply that only the constant coefficient regression (intercept) was significant. The coefficient of determination (R^2) was obtained to be 0.068 which is approximately equal to the amount of the adjusted coefficient of determination ($R_{2adj}=0.050$).

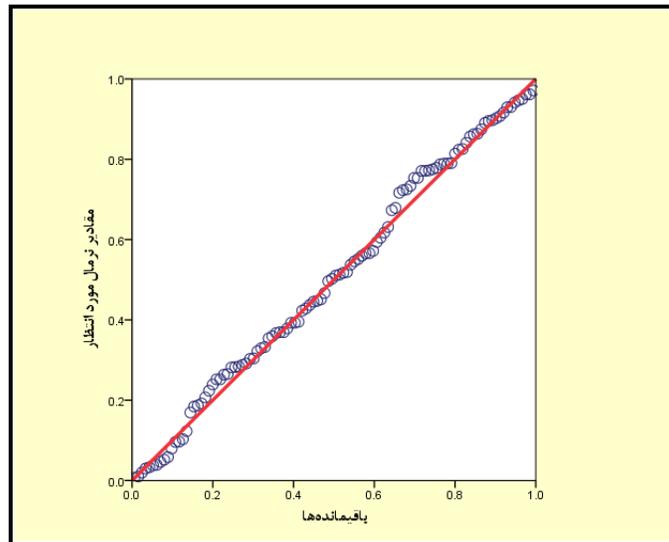


Figure 1: Normal probability plot of residues resulting from fitting the regression model

Therefore, assessing one of the statistics appropriate to the model (the more close the value of R^2 is to R_{2adj} , the more indicator it is of the suitability of the model), it is understood that only about 1% of the

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variation in the criterion variable is explained by the predictor variables of the model. Nevertheless, regarding $p\text{-value}=0.025$, it could be concluded that the two predictor variables of moral intelligence and meaning of life could predict the criterion variable of death anxiety.

Having performed the regression analysis, checking its underlying assumptions will be elaborated. The basic assumptions for regression analysis include no residual autocorrelation, normality and homogeneity of the variance. To investigate the validity of the first assumption above, the Durbin-Watson statistics was used. According to the findings, the Durbin-Watson statistic came out to be 2.179 endorsing no residual autocorrelation. Normality of the dependent variable (stress caused by incompetency) was examined using Kolmogorov-Smirnov Test (KS) and making normal probability plot of residuals. ($P = O / 200 > \alpha = O / O5$) Plot of residuals versus corresponding predicted values was developed to check for homogeneity of the variance.

As is seen in the figure above, the points are located roughly around a straight line (solid line); therefore, the aforesaid assumption (normality of residuals) has not been violated.

According to the results presented so far, the fitted model is expressed as follows:

$$\text{Death anxiety} = 11.200 - 0.26 (\text{moral intelligence}) - 0.26 (\text{meaning of life})$$

In what follows the secondary hypotheses are examined:

First secondary hypothesis: There is a significant relationship between moral intelligence and death anxiety in auxiliary forces in Sari.

Pearson correlation test was used to analyze this hypothesis; the results of which are presented in Table 1. The findings reported in table 2 indicate that considering the P-value, the correlation coefficient between moral intelligence and death anxiety is significant ($P\text{-value} = 0.001 < 0.05$).

Table 2: Evaluation of linear relationship between moral intelligence and death anxiety

Variables	N	Pearson correlation coefficients	P-value	Type of relationship	Form of relationship	Intensity of relationship
Moral intelligence and death anxiety	108	-0.245	0.011	significant	inverse	24%

Furthermore, the correlation between death anxiety and moral intelligence came out to be -0.24 revealing an inverse correlation between the two variables. According to the results demonstrated above, it could be stated with 95% confidence that there is a significant inverse relationship between moral intelligence and death anxiety in auxiliary forces in Sari.

Second secondary hypothesis: There is a significant relationship between the components of moral intelligence and death anxiety in auxiliary forces in Sari.

To test this hypothesis, Pearson correlation was also used; the results of which are presented in table 3.

The findings reported in table 3 indicate that considering the P-value, there exists a significant correlation among the components of telling the truth, standing up for what is right, embracing responsibility for serving others and death anxiety and this coefficient is not significant for other components; in other words, the other components of moral intelligence do not have any significant association with death anxiety.

To this end, regarding the results in table 3 obtained from the correlation coefficient test for the components of moral intelligence and death anxiety, it could be stated with 95% confidence that there exists a significant inverse relationship among the components of telling the truth, standing up for what is right, embracing responsibility for serving others and death anxiety.

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Table 3: The linear relationship between the components of moral intelligence and death anxiety

Variables studied	N	Pearson correlation coefficient	P-value	Type of relationship	Form of relationship	Intensity of relationship	
Moral intelligence components	Constant performance	108	-0.169	0.080	not significant	inverse and weak	17%
	Telling the truth	108	-0.233	0.015	significant	inverse	23%
	Standing up for what is right	108	-0.221	0.022	significant	inverse	22%
	Keeping promises	108	-0.148	0.126	not significant	inverse and weak	15%
	Accepting responsibility toward	108	-0.037	0.707	not significant	inverse and highly weak	4%
	...						
	Admission of errors	108	-0.143	0.139	not significant	inverse and highly weak	14%
	Embracing responsibility for serving others	108	-0.246	0.010	significant	inverse	25%
	Watchfulness	108	-0.118	0.224	not significant	inverse and highly weak	12%
	Forgetting self mistakes	108	-0.138	0.154	not significant	inverse and highly weak	14%
	Forgetting others' mistakes	108	-0.108	0.266	not significant	inverse and highly weak	10%

Third secondary hypothesis: There is a significant relationship between meaning of life and death anxiety in auxiliary forces in Sari.

To test this hypothesis, Pearson correlation was employed; the results of which are presented in table 4. The findings reported in table 3 indicate that considering the P-value, the correlation coefficient between moral intelligence and death anxiety is significant ($P\text{-value}=0.001<0.05$).

Table 4: The linear relationship between the components of meaning in life and death anxiety

Statistical variables	N	Pearson correlation coefficients	P-value	Type of relationship	Form of relationship	Intensity of relationship
Meaning of life	108	-0.200	0.038	significant	reverse and weak	20%

Furthermore, the correlation coefficient between death anxiety and the components of meaning of life came out to be -0.20 indicating an inverse correlation between the two variables. According to the results

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demonstrated above, it could be stated with 95% confidence that there exists a significant inverse relationship between meaning of life and death anxiety in auxiliary forces in Sari.

Discussion

The current paper was an attempt to explore the relationship among moral intelligence, meaning of life and death anxiety in auxiliary forces in Sari County. The results implied a negative significant relationship among moral intelligence, meaning of life and death anxiety in auxiliary forces. In addition, Pearson correlation coefficients analysis demonstrated that the three components of telling the truth, standing up for what is right and embracing responsibility for serving others have a significant negative association with death anxiety.

The results could be explained in Heidegger's viewpoint on death anxiety. Creating a meaningful life, Heidegger, in his standpoint, considers death anxiety as a part of meaningful existence. In this approach, facing death helps people stay alive. In other words, death is a driving force for a perfect life and assist people to strongly live life to its fullest. The results of the present study denoted that having meaning and purpose in life with a significant level of ($\alpha \leq 0.05$) and 95% level of confidence has a significant negative association with death anxiety. This is in line with a study conducted by Hamidi *et al.*, (2013) on patients with MS. They found out that there exists a correlation between personal values and death anxiety. Since having meaning and purpose in life was one of the independent variables in the present study and it also embodies personal values to some extent, it could be asserted that these two studies are consistent with each other. Moreover, the results of the present work are in line with the findings released by Sheikhi *et al.*, (2013), Barjis *et al.*, (2011) and Mascaro and Rosen (2006) who regarded the role of existential meaning as a barrier against stress. This finding is also in accordance with Ericsson's theory. Ericsson, in aspect of development, states that the death anxiety has a negative association with life satisfaction, meaning and purpose of life in middle-aged and elderly people. Furthermore, in their study, Taleb *et al.*, (2011) demonstrated a positive significant relationship between mental health and meaning in life. Since an inverse relationship was shown to exist between death anxiety and mental health, this could be regarded as to verify the results of the present study. Qorban and Esmaili (2012) conducted a study on the effectiveness of logo-therapy concepts training in the reduction of death anxiety in the elderly. The sample included 20 elderly residents in nursing home in Urmia. They were randomly selected and divided into experimental and control groups. Death Anxiety Scale as a pre-test was administered between both groups. The experimental group received 10 sessions of logo-therapy treatment. The results demonstrated that death anxiety in the experimental group at posttest and follow-up stages was significantly lower than control group. This result also verifies the relationship between meaning of life and death anxiety.

Moreover, Ervin Yalom counts death anxiety as a reason why people make positive changes in their lives, regard daily banality as inferior, do things that they previously were not willing to do, establish stronger ties with others and also feel grateful for the blessings of their life. This factor could be known as an intervening variable in moral intelligence. The results of investigating the components of moral intelligence demonstrate that the three components of telling the truth, standing up for what is right and embracing responsibility for serving others have a significant negative association with death anxiety. It seems that telling the truth, standing up for what is right and embracing responsibility for serving others are of those elements which make human beings resistant to the unknown phenomenon of death and the world of silence.

Taking into consideration the significant relationship exists among meaning of life, moral intelligence and death anxiety, it is recommended that in order to reduce death anxiety, speed up decision-making processes at an incident scene and improve emotional self-healing ability after encountering disasters for the sample discussed, enhancement training in moral intelligence and meaning of life be provided for these groups of people.

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