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RESEARCH ARTICLE

# THE EFFECT OF THE RELIGIOUS ATTITUDES ON THE DEATH ATTITUDES AND DEATH ANXIETY IN ELDERLY INTENSIVE CARE PATIENTS: A CROSS-SECTIONAL STUDY

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**Abstract**

**Background:** Negative death attitudes and death fear were reported at a high level among intensive care patients. Research indicates that nurses should know the factors affecting the death attitudes and death anxiety in intensive care patients to reduce these high levels of anxiety and negative attitudes. Religions have a strong relationship with death.

**Aim:** This cross-sectional study was conducted to determine the effect of religious attitudes on death attitudes and death anxiety in elderly intensive care patients.

**Methods:** The data of the study were collected between January 2019 and January 2020 in the intensive care unit of a university hospital in a province located in the east of Turkey. A total of 185 elderly patients participated in the study. Patient Identification Form, Ok-Religious Attitude Scale (ORAS), the Death Anxiety Scale (DAS), and Death Attitudes Profile-Revised (DAP) were used for data collection. IBM SPSS version 25.0 was used for data analysis.

**Results:** Most of the patients (88.6%) were at high level of self-reported religious attitudes. The mean DAS score of the patients was 9.02 ± 1.64, DAP was 120.40 ± 23.70, and ORAS was 31.25 ± 2.90. According to regression analysis, the increase in ORAS scores decreased the DAS score and increased the DAP score ($p < 0.05$).

**Conclusion:** There was a negative relationship between religious attitudes and death anxiety and a positive relationship between religious attitudes and attitudes towards death in elderly patients in intensive care units. Nurses should evaluate the patients' religious attitudes while they plan interventions to reduce patients' death anxiety or to develop positive attitudes toward death in these patients.

**Keywords:** Death, Anxiety, Religious, Attitudes, Elderly, Intensive Care Unit.

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## INTRODUCTION

Death attitudes is an individual feel toward the overall concept of death. This may be attributed to the death of the individual or another person. The death attitudes of the individual may be negative or positive. Negative death attitudes include the negative feelings about death including anxiety and fear. Acceptance of the death refers lower level or the absence of fear and anxiety toward the idea of death.[1]

Death Anxiety is an emotional state involving fear, anxiety, and discomfort when a person has the idea of the inevitability of death or is deeply threatened by death.[2] Attitude towards death refers to an individual's attitude towards the death of himself or others.[2-4] People can develop a positive or negative attitude towards death based on their experiences related to the death they encountered before.[3-5] Negative attitude towards death pathologically reveals the idea of death and may affect the psychology of individuals negatively.[4] When the factors related to death anxiety and attitude towards death are examined, it is stated that religious attitudes protect the individuals against death anxiety.[2] Although studies shows that several factors such as age, gender, period of cancer treatment, psychiatric diagnosis, pain scores, and negative believes about what will happen after death are affecting the death anxiety and attitudes towards death, the studies investigating the effect of religious attitudes on death anxiety and attitudes toward death are limited.[6,7]

Religion not only guides people in every aspect of life but also helps them cope with important problems such as death, by hoping and making sense of life. In Muslim-dominated countries like Turkey, death, which is likely to happen to the patient in the intensive care unit, is perceived as the fact of disembodiment and reaching out to the presence of Allah. When people suffer from psychological or physical disorders, religion may help to improve the efficacy of treatment and accelerate the healing process of the disease via the morale and motivation developed via beliefs. Religious Attitude can be defined as "the style of determining one's thoughts, feelings and behaviors about religion". This attitude can be positive or negative. If a person thinks positively about religion, that means the person has positive feelings towards religion or religious behavior.[8] It is stated that a positive religious attitude can decrease death anxiety and increase a positive attitude towards death.[2,9]

Nurses, who are health professionals who spend most of their time with patients, need to evaluate the patient via a holistic approach when planning care for their patients. In line with this information, nurses' evaluation of patients' death anxiety, attitude towards death, and affecting factors will help to increase the quality of care. This study was conducted to examine the elderly patients, who received treatment in the intensive care unit, death anxiety, and attitudes towards death, and the effect of religious attitude on this anxiety and attitudes.

**Research hypotheses (H1):** positive religious attitude decreases death anxiety, **(H2):** positive religious attitude increases positive attitudes towards death.

## Methods

### Study Setting and Design

This study was conducted in the intensive care units of a university hospital located in eastern Turkey.

The design of the study was a descriptive cross-sectional design using a quantitative approach. This design is the most suited design for testing the hypotheses of the current study. Because the study investigated the effect of religious attitudes on death anxiety and attitudes toward death. In this study, there weren't any interventions for the patients, thus one interview for each patient was enough to examine the hypothesis.[10,11]

### Participants and Setting

A total of 859 patients aged 65 years and over were treated in intensive care units in the Inonu University Turgut Özal Medical center between January 2019 and January 2020. Convenience samples were used for the study. One hundred eighty-five of these 859 patients were included in the study (461 were not able to respond to questionnaires and 213 were refused to participate).

The time frame of the study is presented in Figure 1.

**Inclusion Criteria:** Patients who have been treated in intensive care for at least 24 hours are conscious, do not have any neurological deficits which intercept the communication (speaking or

hearing) or psychological disorders, can communicate in Turkish, and agreed to participate in the study.

**Exclusion Criteria:** Patients who cannot be contacted due to intubation.

**Data Collection**

The Patient Information Form, developed by the researchers upon the literature review,[8,12,13] the Ok-Religious Attitude Scale (ORAS), the Death Anxiety Scale (DAS), and the Death Attitude Profile (DAP) were used for data collection. The data were collected by the researchers via the face-to-face interview method in the intensive care unit. Each interview lasted for approximately 20–25 min.

**Death Anxiety Scale (DAS):** DAS was developed by Templer (1970) (Templer 1970) and adapted into Turkish by Şenol (1989). This scale consists of expressions expressing feelings such as anxiety, fear, and horror. The scale consists of 15 items and two options for each item; true or false. Correct answers are given by the patient were calculated as 1 point, while incorrect answers are not scored. Therefore, the score of the scale range between 0 and 15. Higher points are reflecting the higher level of death anxiety.[14,15] In this study, Cronbach's alpha of the scale was found to be 0.89.

**Death Attitude Profile (DAP):** It was developed by Wong et al. (1994) to determine individuals' death attitudes, and the validity and reliability study for Turkish society was conducted by Işık et al. (2009). The measure consists of 26 items, which are assigned to 5 dimensions (Fear of Death, Death Avoidance, Neutral Acceptance, Approach Acceptance, Escape Acceptance). The answers are based on 7-point Likert-type options from "strongly disagree" to "strongly agree". The scores of the scale range between 26-182 and higher scores in the scale shows more positive death attitudes. In the validity and reliability study, the Cronbach alpha coefficients of the subscales were respectively; 0.86, 0.74, 0.76.[12,16] In this study, the Cronbach's alpha of the scale was found to be 0.75.

**Ok-Religious Attitude Scale (ORAS):** The scale developed by Üzeyir Ok in 2016. The scale was developed for the Islam religion and designed to measure the cognitive, behavioral, emotional, and relational dimensions of individuals about the religion. These four dimensions "cognitive, behavioral, emotional, and relational" are also the sub-dimensions of the scale. In the cognitive dimension, the general opinion of the individual about religion is measured, and in the behavioral dimension, the participation of those who adopt a religion to specific religious practices of that religion is measured. In the emotional dimension, the feelings and emotions of the individual in matters belonging to religion and religion, and in the relationship dimension, the relationship with "God", one of the main sources of belief, is because the scale is measuring the subject of religion. The scale is a five-point Likert type and consists of 8 items. The responses in the scale ranging from "agree: not at all, a little, half the time, mainly, and completely". The score that can be obtained from the scale varies between 8 and 40, and the higher the score shows the higher the level of religious attitude. Only the items of cognitive sub dimension are reverse coded and the rest are not. The Cronbach's alpha value of the scale was 0.90.[17] In this study, the scale's Cronbach's alpha was found to be 0.91.

**Data Analysis**

IBM SPSS version 25.0 was used for data analysis. In the presentation of the data, the percentage distribution was used for the socio-demographic characteristics, the mean (±standard deviation) was used for the scale scores. Independent samples t-test and analysis of variance were used in the comparison of the scales between groups, and the correlation analysis and linear regression analysis were used in the determination of the relationship between the death anxiety, death attitude, and independent variables.

**The Ethical Principles of the Study**

The study protocol was approved by the Ethics Committee of Inonu University (Approval No: 2019/14-5). All principles of the Declaration of Helsinki were followed throughout the study. Written permission were obtained from the Inonu University Turgut Özal Medical center on 04.01.2019. Informed consent were obtained from the patients participated in the study.

## RESULTS

Sociodemographic and disease related characteristics of the patients are presented in Table 1. There were statistically significant differences between ORAS scores and age categories, gender, and self-reported religious level. The ORAS scores were higher in those who were older, female and has low self-reported religious level. There were statistically significant differences between DAS scores and age categories, gender, being have an offspring, marital status, days in the ICU, and self-reported religious level. The DAS scores were higher in those who were older, female, married, had offspring, hospitalized in intensive care for more than seven days, and has a high self-reported religious level. There were significant differences between DAP scores and marital status and being have an offspring. The DAP scores were higher in those who had no offspring and were single (Table 1). The mean ORAS score of the patient was 31.25±2.90. The mean scores for the ORAS sub-dimensions were 2.77±0.38, 8.20±1.24, 9.06±0.43, and 9.15±1.22 for cognitive, emotional, behavioral, and relational respectively. The mean DAS score of the patients was 9.02±1.64 and of DAP was 120.40±23.70. Among the subscales of DAP, the mean score of Neutral Acceptance and Approach Acceptance was 63.59 ± 17.80, Escape Acceptance was 20.17 ± 8.96, and Fear of Death and Death Avoidance was 35.42 ± 10.43 (Table 2).

There was a negative and statistically significant relationship between ORAS and DAS mean scores of the patients (r= -0.850, p<0.001). Besides, There was a positive and statistically significant relationship between ORAS and DAP mean scores of the patients (r= 0.720, p<0.001) (Table 3).

According to regression analysis, there was a relationship between the DAS mean score and some independent variables such as religious attitudes, age, gender, marital status, history of death of a relative within last one year, and self-reported religious level (Table 4). As the religious beliefs of the patients increased, their anxiety levels decreased.

According to regression analysis, there was a relationship between the DAP mean score and some independent variables such as religious attitudes, marital status, being have an offspring, and self-reported religious level (Table 5). As the religious beliefs of the patients increased, their positive attitudes toward death also increased.

## DISCUSSION

As a result of this study in which we evaluated the death Anxiety, death attitudes, and religious attitudes, it was determined that the patients had a moderate level of death anxiety. In a study conducted by Sharma et al. (2019), it was reported that the elderly individuals had a moderate level of death anxiety.[18] In the countries with a high Muslim population like Turkey and Iran, it has been reported that death anxiety is high in both the elderly and the general population.[19,20] Being aware of the life-threatening circumstances in their clinical process, being connected to monitor and life support units, having a bladder catheter, the presence of movement limitation, losing the time orientation, isolation, not being able to see family members at the desired frequency and time may cause an increase in death anxiety in patients.[21,22] Death Anxiety is hazardous for the patients either psychologically or physically.

In the study, it was determined death anxiety was higher in those with advanced age, women, who have offspring, are married, and stay in intensive care for more than seven days. According to the literature, death anxiety is affected not by a single factor but by many social and psychological factors.[23-26] In the literature, it was reported that death Anxiety is high in those who are women, in younger age categories, married, has lower religious attitudes.[25,26] The fact that women have a more emotional structure, gender roles, the effect of biological characteristics and hormones, than men. This may be the reason for the high level of death anxiety in women. Young age may cause the perception that death is not possible soon; therefore, this is the reason why older age increases death anxiety in this study. High death anxiety of the patients who are married and have offspring can be associated with the fear of leaving their spouse and children alone. In addition, as the duration of the patient's stay in the intensive care unit increases, she/he will have the idea of death

away from her family and usual belongings. A person who stays a long time away from his habit is deprived of the need for his/her family, this may contribute to increasing the death anxiety in those who receive treatment for more than seven days.[25-28]

In this study, it was found that the patients' death attitudes were positive. Attitude towards death changes positively as acceptance of death increases with aging. With aging, people tend to move away from social entertainment, moreover, they believe that death is approaching and accept it. In another study in Egypt, it was reported that elderly individuals' death attitudes are positive.[23] In the current study, it was found that single patients, had no offspring, lost their relatives in the last year, and defined their religious category level as high had more positive death attitudes. In the studies which were assessing the death attitudes, it was reported that death attitudes are more positive in singles and the individuals who don't have offspring.[28,29] In this respect, our findings reflect the literature. This result suggests that single patients consider death more acceptable because they do not have a family order of their own. The reason why patients who don't have offspring have more positive death attitudes may be due to their lack of responsibility towards someone. [28,29] As a matter of fact, we found that those with offspring had higher death anxiety. It is stated that individuals who lose their relatives consider death as a natural event (50%) and accept it as a result of life (65.5%).[23,28,29] The result of the research supports this information.

In the current study, it was found that the religious attitudes of the patients were positive. There are some research results in the literature showing that older people have higher religious attitudes.[30-32] In the current study, the religious attitudes were higher in those who were female, in older age categories, and had a high level of self-reported religious belief. The reason why patients aged 77 and over have the highest mean scores on the religious attitudes scale may be that elderly people tend to engage in religious beliefs and activities that will make them forget their loneliness, give them a certain identity and sense of belonging, and especially relax them against death anxiety.[2,3,9]

In this study, it was determined that religious attitude is a variable that affects death anxiety. A positive religious attitude decreases death anxiety.[30,33] Although studies are reporting that religious orientation decreases death anxiety in the literature[29,30], some studies have reported that it does not affect death anxiety.[15,16] It was a common claim in the literature that a high level of religious attitude, in general, helps to distract the individual from stress and anxiety, alleviates negative feelings, and facilitates the solution of problems.[28,30] With a positive religious attitude, the individual believes that whatever situation happens to her/his, the result will be good and has the motivation to make her/his feel good in psychological terms, and death anxiety may decrease.[31,33] As a matter of fact, this study found that those who expressed the category of religious belief high had less death anxiety.

In this study, it was determined that religious attitude is a factor that affects attitude towards death. A positive religious attitude positively affects the attitude towards death. In studies evaluating the relationship between religion and death; It has been reported that patients with high religious attitudes consider death as a natural end of life, accept it, and do not think negatively about death.[29,34] Thanks to the positive religious attitude of individuals; It is stated that instead of focusing on problems, they prefer to be accepting and in the flow, instead of turning to their solutions and spiritual activities and blaming fate and the god.[32,34]It is reported that patients with positive religious attitudes can more easily adapt to a negative situation such as death. While the meaning given to death is shaped according to the point of view of the world, the meaning given to life also affects the perception of death. Religion helps patients make sense of death and resist the sense of hopelessness felt by the fear of death.[31,34] In this study, it was determined that those who defined the religious belief category as high had more positive attitudes towards death. It can be thought that the high religious attitude of the patients in this study helps the patients to accept the pain caused by the truth about death and to show patience to the patients in developing a positive attitude towards death. It can be said that religious attitude plays a role in protecting the

psycho-social integrity of elderly patients who are treated in the intensive care unit.

**CONCLUSIONS**

As a result of this research, the religious attitude was an important factor affecting death anxiety and attitude towards death. A positive religious attitude decreases death anxiety (H1 acceptance) and increases a positive attitude towards death (H2 acceptance). Besides, it was found that age, gender, marital status, history of death of a relative within last one year, and self-reported religious level affect the death anxiety and marital status, being have an offspring, and self-reported religious level affect the death attitudes of the patients. In line with these results, it is recommended to evaluate patients holistically by their nurses providing care, to reduce death anxiety, and change pathological negative death attitudes with religious care practices that will be planned considering their religious attitudes. We also recommend that the topics such as religious attitudes, death anxiety, and death attitudes must take part in nursing curricula to increase the quality of life and death quality of the elderly patients in ICU.

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**ANNEX**

**TABLE 1.** Comparison of the means of the ORAS, DAS, and DAP according to the descriptive characteristics of the patients

| **Descriptive characteristics** | ***n*** | **%** | **ORAS** | **DAS** | **DAP** |
|---|---|---|---|---|---|
| **Age Categories** | | | | | |
| 65-70 | 41 | 22.2 | 29.03± 1.41[b] | 11.05±1.05[b] | 127.14± 23.93 |
| 71-76 | 68 | 36.7 | 31.66± 0.97[b] | 10.69±1.77[b] | 111.31 ± 20.30 |
| 77 and over | 76 | 41.1 | 33.78± 1.04[a] | 12.03±1.08[a] | 121.40 ± 21.02 |
| Test statistics | | | F:2.302 | F:1.780 | F:6.026 |
| p | | | 0.042 | 0.013 | 0.088 |
| **Gender** | | | | | |
| Female | 88 | 47.6 | 32.05± 1.62[a] | 13.02±1.64[a] | 121.34 ± 23.16 |
| Male | 97 | 52.4 | 29.42± 2.83[b] | 10.14±1.13[b] | 119.21±22.84 |
| Test statistics | | | t:1.679 | t:0.250 | t:1.015 |
| p | | | 0.015 | 0.019 | 0.229 |
| **Education level** | | | | | |
| Literate | 30 | 16.2 | 31.11± 1.75 | 10.30±1.70 | 120.16 ± 22.05 |
| Primary school | 78 | 42.2 | 29.54± 2.06 | 11.12±1.02 | 121.70± 23.88 |
| Secondary school | 54 | 29.2 | 32.91± 0.94 | 11.00±1.03 | 122.01 ± 23.92 |
| University | 23 | 12.4 | 31.01± 2.22 | 11.95±1.81 | 119.34 ± 22.01 |
| Test statistics | | | F:3.987 | F:1.605 | F:9.071 |
| p | | | 0.120 | 0.368 | 0.504 |
| **Marital Status** | | | | | |
| Married | 117 | 63.2 | 30.04± 2.13 | 12.88±1.04[a] | 118.60±23.04[b] |
| Single | 68 | 36.8 | 32.25± 0.26 | 10.00±1.33[b] | 122.32 ± 22.07[a] |
| Test statistics | | | t:1.450 | t:0.704 | t:0.770 |
| p | | | 0.271 | 0.031 | 0.025 |
| **Have an offspring** | | | | | |
| Yes | 101 | 54.6 | 29.80± 1.05 | 13.31 ± 0.70[a] | 116.55±22.91[b] |
| No | 84 | 45.4 | 32.07± 1.98 | 10.02±1.52[b] | 124.01±23.00[a] |
| Test statistics | | | t:1.030 | t:0.540 | t:1.086 |
| p | | | 0.216 | 0.017 | 0.010 |
| **Income Level** | | | | | |
| Income less than the expense | 80 | 43.2 | 30.85± 1.70 | 10.70±1.43 | 120.33±23.38 |
| Income equal to the expense | 81 | 43.8 | 32.73± 2.84 | 12.02±1.14 | 120.01±23.13 |
| Income higher than the expense | 24 | 13.0 | 30.91± 1.06 | 11.30±1.92 | 120.64±23.09 |
| Test statistics | | | F: 5.704 | F:2.130 | F: 5.807 |
| p | | | 0.329 | 0.095 | 0.692 |
| **Disease** | | | | | |
| Chronic Heart Failure | 39 | 21.1 | 30.01± 1.20 | 11.04±1.00 | 120.75±22.00 |
| Chronic Kidney Disease | 37 | 20.0 | 29.55± 1.17 | 11.37±1.54 | 121.50±21.43 |
| Cancer | 30 | 16.2 | 31.00± 1.13 | 11.00±1.07 | 119.11±20.90 |
| COPD | 35 | 18.9 | 30.34± 1.81 | 10.95±1.88 | 120.48±21.27 |
| Coronary Artery Disease | 44 | 23.8 | 30.61±1.92 | 12.10±1.63 | 120.19±20.55 |
| Test statistics | | | F: 4.105 | F:3.382 | F:5.016 |
| p | | | 0.480 | 0.839 | 0.839 |
| **Intensive Care Unit type** | | | | | |
| Medical | 95 | 51.4 | 31.78± 2.44 | 11.43±1.01 | 120.80±22.80 |

| | | | | | |
|---|---|---|---|---|---|
| Surgical<br>Test Statistics<br>p | 90 | 48.6 | 31.99± 2.81<br>t:1.016<br>0.062 | 11.00±1.35<br>t:0.912<br>0.130 | 120.00±23.75<br>t:1.802<br>0.450 |
| **Days in ICU** | | | | | |
| 1-3 days | 93 | 50.3 | 28.97± 1.55 | 10.94±1.73[b] | 120.47±23.63 |
| 4-6 days | 42 | 22.7 | 31.03± 1.78 | 11.52±1.09[b] | 119.36±22.06 |
| 7 or more days | 50 | 27.0 | 34.16± 0.10 | 12.33±1.15[a] | 120.23±23.99 |
| Test statistics | | | F:4.118 | F:2.027 | F:8.098 |
| p | | | 0.324 | 0.016 | 0.064 |
| **Death of a relative within the last year** | | | | | |
| Yes | | | | | |
| No | 95 | | 30.55± 2.03 | 12.43±1.01[a] | 120.30±22.80 |
| Test statistics | 90 | | 32.43± 1.96 | 9.00±1.35[b] | 120.08±23.94 |
| p | | | t:0.708 | t:0.940 | t:1.503 |
| | | | 0.369 | 0.011 | 0.533 |
| **Self-reported religious level** | | | | | |
| Low | 6 | 3.23 | 32.41± 1.12[b] | 9.47±1.01[b] | 117.95±21.02[b] |
| Normal | 15 | 8.11 | 30.63± 1.05[b] | 9.73±0.84[b] | 119.46±21.17[b] |
| High | 164 | 88.6 | 28.90±1.73[a] | 12.55±0.92[a] | 122.71±22.00[a] |
| | | | F:4.089 | F:3.803 | F:6.126 |
| | | | 0.013 | 0.025 | 0.010 |

*Post-hoc Bonferroni test differences with other groups [b] no differences with other

*$p < 0.05$

**TABLE 2.** ORAS, DAS, and DAP mean scores and their subscales' mean scores

| Scales | Mean | Min-Max |
|---|---|---|
| **ORAS Total** | 31.25± 2.90 | 15-38 |
| Cognitive | 2.77±0.38 | 2-8 |
| Emotional | 8.20±1.24 | 3-10 |
| Behavioral | 9.06±0.43 | 2-10 |
| Relational | 9.15±1.22 | 4-10 |
| **DAS** | 9.02±1.64 | 2-15 |
| **DAP Total** | 120.40 ± 23.70 | 26-171 |
| Neutral Acceptance and Approach Acceptance | 63.59 ± 17.80 | 12-83 |
| Escape Acceptance | 20.17 ± 8.96 | 5-33 |
| Fear of Death and Death Avoidance | 35.42 ± 10.43 | 9-62 |

**TABLE 3.** The correlations between the ORAS, DAS, and DAP scales

| | **ORAS** | **DAS** | **DAP** |
|---|---|---|---|
| **ORAS** | **-** | r=-0.850<br>p<0.001 | r=0.720<br>p<0.001 |
| **DAS** | r=-0.850<br>p<0.001 | **-** | |
| **DAP** | r=0.720<br>p<0.001 | **r=-0.743**<br>**p<0.001** | **-** |

**TABLE 4.** Regression estimates for the effects of some variables on DAS mean scores

| **Regression** | | | | |
|---|---|---|---|---|
| **Dependent Variable** | **β** | **B** | **t** | **p** |
| **Constant** | | 8.870 | 9.103 | 0.001 |
| **ORAS** | -0.550 | 0.971 | 4.117 | 0.005 |
| **Age (77 and over)** | 0.286 | 0.492 | 3.506 | 0.004 |
| **Gender (female)** | 0.142 | 0.280 | 4.943 | 0.003 |
| **Marital Status (married)** | 0.354 | 0.672 | 5.105 | 0.002 |
| **Have an offspring (yes)** | 0.021 | 0.049 | 2.124 | 0.389 |
| **Days in ICU (more than 7 days)** | 0.043 | 0.860 | 4.089 | 0.085 |
| **Death of a relative within the last one year (yes)** | 0.368 | 0.925 | 2.227 | 0.004 |
| **Self-reported religious level (high)** | 0.426 | 0.902 | 5.136 | 0.001 |
| **Model Summary: R= 0.40, $R^2$= 0.16, F=4.984 , p=0.002** | | | | |

**$p<0.05$

**TABLE 5.** Regression estimates for the effects of some variables on DAP mean scores

| **Regression** | | | | |
|---|---|---|---|---|
| **Dependent Variable** | **β** | **B** | **t** | **p** |
| **Constant** | | 118.940 | 7.229 | 0.001 |
| **ORAS** | 0.670 | -1.206 | 5.117 | 0.004 |
| **Marital Status (single)** | 0.195 | -0.317 | 3.306 | 0.120 |
| **Have an offspring (no)** | 0.299 | -0.635 | 4.005 | 0.003 |
| **Self-reported religious level (high)** | 0.481 | -0.867 | 5.023 | 0.002 |
| **Model Summary: R= 0.26, $R^2$=0.07 , F=6.705 , p=0.004** | | | | |

**$p<0.05$

**FIGURE 1.** The time frame of the study