

Correlation between Self-esteem, Death Anxiety, and Spiritual Wellbeing in Korean University Students

Chung, Mi Young¹ · Cha, Kyeong-Sook¹ · Cho, Ok-Hee²

¹Department of Nursing Science, Sun Moon University, Asan

²Department of Nursing, College of Nursing and Health, Kongju National University, Gongju, Korea

Purpose: This study aimed at understanding the correlation between self-esteem, death anxiety, and spiritual wellbeing in university students. **Methods:** Cross-sectional method was used 671 students in South Korea. This study used the Self-esteem developed by Rosenberg, the Fear of Death Scale revised by Lester and Abdel-Khalek, and Spiritual wellbeing developed by Paloutzian and Ellison. **Results:** Relationships between self-esteem, death anxiety, and spiritual wellbeing revealed an inverse correlation between self-esteem and death anxiety, and a direct correlation between self-esteem and spiritual wellbeing. **Conclusion:** In order for students of establishing identity to lead a healthy life, there is a need for studies aiming at developing, implementing, and evaluating the results of consultation and education programs for maintaining spiritual wellbeing such as psychological counseling and logotherapy at the university or regional community level.

Key Words: Self-esteem, Death anxiety, Spiritual wellbeing

INTRODUCTION

University students exist in the stage between late adolescence and early adulthood during which physical, spiritual, and socio-psychological development is still in progress. This period is an important development stage during which they establish self-identity and learn to navigate complicated socio-psychological tasks such as the balance between dependence and independence, responsibility arising from freedom and choice, formation of social relations, ambiguity about the future, and pressure about success[1]. However, the rapidly changing modern society is success oriented and emphasizes diversity and pluralism, and university students tend to experience frustrations, anxieties, and depressions. University students today have a considerably lower capacity to manage frustration, sadness, and pain

than those in the past. They tend toward emotional vulnerability to even small frustrations, which drives them toward suicidal ideation as an escape from complicated social situations and impulsive suicide attempts[2,3]. The rate of suicide in Korea is the highest among the OECD countries. Suicide is the main cause of death among university students in their 20s [4]. Therefore, there is an urgent need for social attention to reduce the suicide rate.

Self-esteem is important for the establishment of a healthy self-image through a positive view of and attitude toward oneself. It is an important factor for the cognitive evaluation of and approach to events[5]. People with high self-esteem are stable, sure of their abilities and achievements, and exhibit a healthy mental state and positive attitude toward life. In contrast, people with low self-esteem have unstable relationships with others and negative feelings toward the future and death, which increases the likelihood of drug addiction, depression,

Corresponding author: Cho, Ok-Hee

Department of Nursing, College of Nursing and Health, Kongju National University, 56 Gongjudeahak-ro, Gongju 314-701, Korea.
Tel: +82-41-850-0306, Fax: +82-41-850-0315, E-mail: ohcho@kongju.ac.kr

- This research was supported by the Sun Moon University Research Grant in 2011.

Received: Mar 30, 2015 / Revised: Jun 9, 2015 / Accepted: Jun 11, 2015

This is an open access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (<http://creativecommons.org/licenses/by-nc/3.0>), which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

and suicidal ideation[6]. Moreover, the widespread contempt of life in our society, including abortion, can be conducive to a negative attitude toward death.

No living being can be separated from death. The difference between humans and other living beings is that humans are aware of death, and live a life accompanied by death. Death anxiety is anxiety over the finitude of existence. It is experienced not only at the end of physical life but continuously in everyday life. The issue of death is as important as life during human growth and development. The level of perception and understanding of death may influence the understanding of life, and become the key to personal growth and potential development[7]. Accordingly, in order to live a high-quality, happy life, people need to face their own finitude in an adequate manner and develop a sound perception of their own death. It is important to establish a clear attitude toward both life and death. Decreasing the fear of death and encouraging the value of life may become the driving force for finding meaning in one's current life.

The "spirituality" that exists inside every human being improves and enhances positive thinking and inner defense, and promotes inner healing and peace. It is also deeply associated with resolving the anxiety about death. The spirituality is important factor to cope with death anxiety through perceiving of the death, finding methods for overcoming hardness, and realizing the positive aspects of their own situations. Spiritual wellbeing, the development of spiritual abilities to the fullest, helps individuals find the meaning and goal of life, dreams, and the future, and enhances their self-esteem, dignity, and satisfaction with life in their current circumstances[7-9].

In today's rapidly changing society, university students tend to have difficulties establishing their values and feel contempt toward life, or take death too lightly out of a lack of contemplation of life[3]. Regardless, there is a lack of general and research interest in this problem. Therefore, this study confirmed the levels of self-esteem, death anxiety, and spiritual wellbeing in university students and their inter-factor correlations, and provides basic data for the development of a program aimed to help this population increase their self-esteem, develop positive attitudes toward death, and maintain their spiritual wellbeing.

The detailed objectives of this study are as follows: (1) to determine the levels of self-esteem, death anxiety, and spiritual wellbeing in university students; (2) to determine self-esteem, death anxiety, and spiritual wellbeing according to the students' general characteristics; and (3) to determine the correlations among students'

self-esteem, death anxiety, and spiritual wellbeing.

METHODS

1. Study Design

This study utilized a cross-sectional survey design to determine the levels of self-esteem, death anxiety, and spiritual wellbeing in university students as well as their inter-factor correlations.

2. Participants and Data Collection

The content and the method of this study were approved by the Institutional Review Board of the J University. Participants were 700 students from S University in Cheonan City, South Korea, who understood the objectives of this study and agreed to participate. Twenty-nine participants were excluded due to incomplete information; thus, the final number of participants was 671. The minimum number of participants required for correlation analysis by G*Power 3.1.2 software was computed to be 584 in consideration of an effect size of .30 (medium), significance level of .05, and test power of 95% [10].

Data were collected from March to July 2012 by distributing questionnaires and instructing participants to complete them. The purpose of the study was explained to the participants and then the data was collected from whom agreed with participating the study. The participants were informed that the answers would be processed confidentially and anonymously. They were explained whenever they did not want to participate in the study, they could stop it without any penalty. The time required to complete the questionnaire was 20 minutes.

3. Measures

1) Self-esteem

Self-esteem was measured with a tool developed by Rosenberg[11] and translated by Lee et al.[12]. It is composed of 10 items rated on a 4-point scale. Respondents receive 1 point for answering "strongly disagree" and 4 points for "strongly agree." Higher scores indicate higher self-esteem. Cronbach's α coefficient for the tool's reliability in this study was .81.

2) Death anxiety

This study used Seo's[13] adaptation of the Fear of Death Scale (FODS) revised by Lester and AbdelKhalek

[14], to measure death anxiety. This tool consists of 28 measurement items that evaluate fear and anxiety about the process of dying and death regarding oneself and others on a 5-point scale; responses of “strongly agree” are assigned 5 points, and “strongly disagree” is assigned 1 point. Higher scores indicate higher levels of death anxiety. Cronbach’s α coefficient for the tool’s reliability in this study was .90.

3) Spiritual wellbeing

Spiritual wellbeing was measured with the tool developed by Paloutzian and Ellison[15] and adapted by Cheung et al.[16]. This tool consists of 20 items (10 items for the existential and 10 for the religious aspects of spiritual wellbeing) rated on a 5-point scale, with 1 point assigned to “strongly disagree” and 5 points to “strongly agree”; higher scores indicate higher levels of spiritual wellbeing. Cronbach’s α coefficient for the tool’s reliability in this study was .82.

4. Data Analysis

Data analyses were conducted with SAS (version 9.2) statistical software. Participants’ general characteristics and their levels of self-esteem, death anxiety, and spiritual wellbeing were presented as frequency and percentage as well as mean and standard deviation. The differences in self-esteem, death anxiety, and spiritual wellbeing according to general characteristics were analyzed with t-tests and analyses of variance (ANOVA). Post-hoc tests were carried out by using Duncan’s multiple range test. Correlations between self-esteem, death anxiety, and spiritual wellbeing were estimated with Pearson’s correlation coefficients.

RESULTS

1. Participants' General Characteristics

Among the study participants, 413 were male (61.6%) and 258 were female (38.4%). A total of 129 participants were freshmen (19.2%), 169 were sophomores (25.2%), 218 were juniors (32.5%), and 155 were seniors (23.1%). Perceived economic background was moderate for 500 participants (74.5%), and 444 had no religion (66.2%). One hundred-six students lived alone (15.8%), 307 lived in the dormitory (45.8%), and 258 lived with their families (38.4%). Approximately 70%(469 students) had indirectly experienced death through the death of close relatives or pets, and 18.6% had experienced suicidal

ideation within the preceding year (Table 1).

Table 1. General Characteristics of Participants (N=671)

Characteristics	Categories	n (%)
Gender	Male	413 (61.6)
	Female	258 (38.4)
Grade	freshmen	129 (19.2)
	sophomores	169 (25.2)
	juniors	218 (32.5)
	seniors	155 (23.1)
Economic status	Poor	108 (16.1)
	Moderate	500 (74.5)
	Good	63 (9.4)
Religion	Yes	227 (33.8)
	No	444 (66.2)
Place of residence	Alone	106 (15.8)
	Dormitory	307 (45.8)
	With the family	258 (38.4)
Indirect death experience	Yes	469 (69.9)
	No	202 (30.1)
Suicidal ideation	Yes	125 (18.6)
	No	546 (81.4)

2. Self-Esteem, Death Anxiety, and Spiritual Wellbeing According to General Characteristics

Participants’ average self-esteem score was 29.41 points, but this varied according to sex ($p < .001$), year of study ($p = .014$), major ($p = .003$), economic status ($p < .001$), and suicidal ideation ($p < .001$). In particular, self-esteem was lower in female students than in male students, in freshmen than in sophomores and juniors, in those with moderate economic status than those with good economic status, and in those who had experienced suicidal ideation within the preceding year than those who had not.

The average death anxiety score was 90.59, but this varied according to major ($p = .037$), economic status ($p = .010$), place of residence ($p = .014$), indirect death experience ($p = .006$), and suicidal ideation ($p < .001$). The level of death anxiety was higher in students with poor economic status than in those with moderate economic status or higher, in those who were living alone than in those living in the dormitory or with their families, in those who had indirect experience of death than in those who did not, and in those who had experienced suicidal ideation in the past year than those who had not.

The average spiritual wellbeing score was 71.77 points, but this varied according to sex ($p=.001$), year of study ($p=.001$), economic status ($p=.013$), religion ($p<.001$), place of residence ($p=.001$), and suicidal ideation ($p<.001$). In particular, the level of spiritual wellbeing was lower in female students than in male students, in 1st and 2nd year students than in 3rd and 4th year students, in those with moderate and poor economic status than in those with good economic status, in those who had no religion than in those with religion, in those living alone than in those living in the dormitory or with their families, and in those who experienced suicidal ideation than in those who did not (Table 2).

3. Correlations between Self-esteem, Death Anxiety, and Spiritual Wellbeing

Examining the relationships between self-esteem, death anxiety, and spiritual wellbeing revealed an inverse correlation between self-esteem and death anxiety ($r=-.31, p<.001$) and a direct correlation between self-esteem and spiritual wellbeing ($r=.50, p<.001$). Further, death anxiety and spiritual wellbeing were inversely correlated ($r=-.25, p<.001, r=-.23, p<.001, r=-.31, p<.001$). This suggests that the lower the self-esteem, the higher the death anxiety and lower the spiritual wellbeing (Table 3).

DISCUSSION

Student life is important for adults' preparation for social roles. The establishment of self-esteem during this period leads to higher confidence in one's own abilities and achievements[17]. Moreover, helping people understand death as a part of life properly establishes the value of and attitude toward death, and makes one's current life more stable and rewarding. This study was conducted to determine the relationships between self-es-

Table 3. Correlation between Self-esteem, Death Anxiety and Spiritual Wellbeing (N=671)

Variables	Self-esteem	Death anxiety	Spiritual wellbeing
	r (p)	r (p)	r (p)
Self-esteem		-.31 (<.001)	.50 (<.001)
Death anxiety			-.25 (<.001)

Table 2. Self-esteem, Death anxiety and Spiritual Wellbeing according to Characteristics of the Participants (N=671)

Characteristics	Categories	Self-esteem		Death anxiety		Spiritual wellbeing	
		M±SD	t or F (p)	M±SD	t or F (p)	M±SD	t or F (p)
Gender	Male	30.15±4.88	5.01	89.98±19.64	-1.03	73.10±14.33	3.30
	Female	28.23±4.70	(<.001)	91.56±18.73	(.303)	69.65±12.37	(.001)
Grade	Freshmen	28.33±4.78 ^a	3.56	92.17±21.39	1.93	69.28±13.39 ^a	5.33
	Sophomores	29.60±5.10 ^b	(.014)	88.15±18.95	(.123)	69.55±12.63 ^a	(.001)
	Juniors	30.05±4.81 ^b	a < b	89.99±19.96		73.61±14.26 ^b	a < b
	Seniors	29.21±4.79		92.78±16.50		73.70±13.72 ^b	
Economic status	Poor	28.44±4.90 ^a	9.67	95.65±21.90 ^a	4.54	68.97±14.26 ^a	4.41
	Moderate	29.32±4.78 ^a	(<.001)	89.51±18.78 ^b	(.010)	71.94±13.39	(.013)
	Good	31.76±5.18 ^b	a < b	90.48±17.38 ^b	a > b	75.29±14.45 ^b	a < b
Religion	Yes	29.34±4.63	-0.26	89.72±17.84	-0.83	78.48±14.08	9.23
	No	29.45±5.04	(.793)	91.03±20.00	(.405)	68.34±12.16	(<.001)
Place of residence	Alone	29.31±4.77	1.69	95.24±17.21 ^a	4.29	69.21±13.39 ^a	7.19
	Dormitory	29.77±5.03	(.185)	88.91±20.21 ^b	(.014)	73.90±13.81 ^b	(.001)
	With the family	29.02±4.79		90.69±18.74 ^b	a > b	70.30±13.37 ^b	a < b
Indirect death experience	Yes	29.58±4.92	1.39	91.94±18.53	2.77	71.31±13.86	-1.34
	No	29.01±4.85	(.166)	87.47±20.68	(.006)	72.86±13.30	(.180)
Suicidal ideation	Yes	29.60±4.74	5.22	98.57±17.66	-4.03	67.37±12.98	-7.39
	No	30.06±4.71	(<.001)	88.76±19.20	(<.001)	72.78±13.68	(<.001)
Total		29.41±4.90		90.59±19.30		71.77±13.70	

a, b, c: Bonferroni t-test (means with the same letter are not significantly different).

teem, death anxiety, and spiritual wellbeing, and to explore an intervention method for maintaining positive attitudes toward death and spiritual wellbeing.

Students' average self-esteem score in this study was 29.41 out of a possible 40 points, consistent with previous studies that used Rosenberg's instrument: 27.87 points in United States (US) university students[18]. As an evaluation of oneself, self-esteem is the core factor that determines individuals' behavior and adaptation. It is closely related to not only physical but also spiritual health[17]. In this study, self-esteem was lower in female students than male students, in freshmen than sophomores and juniors, in those with moderate economic status than those with good economic status, and in those who had experienced suicidal ideation within the preceding year than those who had not. This is consistent with previous findings that men have higher self-esteem than women[19], and that self-esteem tends to increase with age[5]. This is also consistent with findings that self-esteem decreases as family economic status decreases [5]. Those at a lower economic level have to address financial problems related to the expenses of higher education (e.g., university tuition fees), which leads to their lack of self-esteem. It is expected that they also have difficulties developing fellowship with their friends. A previous study found that monthly income and self-esteem were inversely related to stress and suicidal ideation[20]. This indicates that help must be provided to such students.

Modern students experience various types of stress related to problems with studies and employment, as well as the establishment of personal relationships and values. Self-esteem plays an important role in the overall quality of life and adaptation to everyday life; it is an important factor that influences individuals' behavior in relation to personal experience, and informs attitudes and modes of behavior toward others. Moreover, people with high self-esteem perceive themselves as valuable and able beings, think positively about themselves and their surroundings, have higher levels of life satisfaction, and behave positively when interacting with others. In contrast, people with low self-esteem lack confidence, view themselves negatively, and have higher levels of anxiety. They also exhibit negative psychological states such as depression, passivity, maladjustment, or distorted viewpoints, project no confidence toward themselves and their environment, and demonstrate unstable behavior[21] these increase the likelihood of suicidal ideation or suicide attempts. Accordingly, the formation of appropriate self-esteem during an important period of

adolescence is essential for overcoming difficult situations and stress later in life, and for living successfully. Self-esteem could be changed through various experiences. The development of systematic programs to improve social-interaction ability can help to promote students' self-esteem for, especially, the freshman who had lower self-esteem and students who were lower economic status.

Participants' death anxiety score was 90.59 out of a maximum 160 points. This is consistent with the results of previous studies on Americans age 20~29 years who scored 89.90~97.44 points[22] and on Australian nursing students who scored 91~92 points[23]. Death anxiety is an emotional response felt universally by all humans, to greater and lesser degrees, to the event of death, or to negative feelings such as fear, aversion, and denial about the process of dying. Death anxiety can vary depending on values and religion, life experiences, individual characteristics, and environmental factors. In this study, death anxiety was higher in students with poor economic status than those with moderate or higher economic status, in those who were living alone than those living in the dormitory or with their families, in those who had indirect experience with death than those who did not, and in those who experienced suicidal ideation than those who did not. This is consistent with previous findings that the lower the economic level, the higher the level of stress and suicidal ideation[24], and that the experience of suicidal ideation leads to recurring thoughts and various fears about death, which increases death anxiety[20]. Social support systems, such as those provided by family or friends who play a facilitating role, can help students adjust to change during crises. Accordingly, those who live alone may develop emotional problems caused by depression, anxiety, and feelings of isolation[25]. This can cause not only death anxiety but also suicidal ideation. Accordingly, it is necessary to recognize the importance of offering social support to university students and to strengthen the detailed measures to deal with this problem, not only in the process of university education but also from a public policy standpoint.

Death anxiety was especially high in those who had had indirect experience of death, because such experience has a psychologically adverse effect and increases anxiety[26]. The problem of death is simultaneously the problem of life, and a problem related to human nature. According to Russac et al.[22], when death anxiety was measured in adults of different ages, those aged 20~29 showed the highest levels. Early adulthood is the period

of making continuous efforts to strengthen one's life and become a recognized member of society; when people realize that their dreams did not come true as they wished, they can fall into crisis[27]. Death severs people from the realization of their dreams, leading to death anxiety. University students experience the severance of relationships through the death of parents or friends; it is then that they perceive the problem of their own life and death, and when they take control over their lives and obtain *savoir-vivre*[2]. Death anxiety is increased in students with little experience of death because their values are not established. This implies the need to go further than interventions for death anxiety in the elderly and prepare an intervention program for early adulthood. The meaning of death is mostly negative, and the emotions about death are unpleasant[7]. The attitude of individuals toward death is slightly different from country to country depending on cultures and religions, but the generally perceived objects of anxiety that lead to avoidance, suppression, and fear of death are those centered on the unknown world after death, fear of physical extinction, loneliness, and parting with family and close friends. In the past, Korean society in general avoided discussions of death, understanding it instead through anxiety and fear and maintaining a taboo on the connection between death and life. There is nothing more shocking for a human being than death, including not only the fear of one's own death, but also the intense pain and shock caused by the death of a loved one. In the earlier Korean extended-family system, there were many opportunities for individuals to master methods of overcoming anxiety related to death and the psychological pain of the death of family members and friends. In a modern nuclear family, there are fewer opportunities to deal with death, and therefore fewer opportunities to actively consider its meaning. However, the fear of death may be relieved through education[23]. There is a need to increase individuals' knowledge about death, and to offer a death-preparation educational program that includes a method for resolving emotions about one's own death and that of others. This may help participants find meaning in death, understand healthy death, prevent the fear of death and accept it as a part of life, and continuously live life to the fullest.

As the basic problems of life and death are difficult to solve, humans need spiritual assistance. The spiritually healthy human state is known as spiritual wellbeing, wherein an individual is full of energy, has a goal in life, and feels fulfilled. The average spiritual wellbeing score of the participants of this study was 71.77 points out of a

maximum 100 points. Spiritual wellbeing levels were lower in female students than male students, in freshmen and sophomores than juniors and seniors, in those with moderate and poor economic status than those with good economic status, in those who had no religion than those with religion, in those who were living alone than those who lived in the dormitory or with their families, and in those who had experienced suicidal ideation than those who had not.

In this study, participants who had religion had higher levels of spiritual wellbeing, because religion contributes to one's integrity and happiness, and gives human life more depth and abundance as well as hope and the desire to discover the true meaning of life[28]. Human spirituality is a philosophy that invokes positive behavior, gives meaning and value to life, and, through questions about basic human nature, transcends the individual realm and makes it possible to have meaningful relationships with neighbors and the environment[8]. Further, as an important factor in mental stability, spiritual wellbeing reduces suffering and facilitates appropriate coping behavior in stressful circumstances or in the face of important life situations that influence mental health[17]. From this perspective, spiritual wellbeing is not a state, but an indicator for human spiritual health; thus, it should certainly be considered one of the aspects of health.

Spiritual wellbeing is expressed as inner peace, desire, longing for interactions with others, respect for life, gratefulness and satisfaction, supportive relations with others, and moral behavior[1]. The scope of social support and the support system is the main factor closely related to spirituality. Through this close relation, personal relationships have a great influence on maintaining spiritual health[29]. This study's finding that students who lived alone had lower levels of spiritual wellbeing than those who were living in the dormitory or with their families supports the opinion of Koenig[29]. University life is an important period during which individuals should establish their own life philosophy and identity. Those who are spiritually well can find meaning and goals in life in their current surroundings as well as future meaning and their ultimate goals. They show a positive attitude even in negative circumstances or environments, and can accelerate inner healing and peace by improving and revitalizing their inner defense abilities[1,2]. Accordingly, implementing a spiritual education or consultation program aimed at increasing university students' spiritual wellbeing may help them achieve the tasks they face and live healthy lives.

The higher the students' self-esteem in this study, the lower their death anxiety. This is consistent with previous findings that self-esteem is a psychological buffer for death anxiety, and that the more positive the self-esteem, the more positive the attitude toward death and the lower the death anxiety[30]. Loss of self-esteem may influence mental, psychological, and spiritual health, and lead to mental anxiety and perceiving oneself as a worthless being. Self-esteem reflects confidence in oneself and nature, and is closely associated with the spiritual wellbeing related to inner harmony[29]. It is believed that for these reasons, self-esteem was found to be directly correlated with spiritual wellbeing in this study. Moreover, it was found that the higher the level of spiritual wellbeing, the lower the degree of stress or anxiety about death. This is presumably because when people are spiritually well, they have not only a positive attitude toward their current situation but also better inner healing force.

Taken together, these findings suggest that the higher the self-esteem in South Korean students, the lower their death anxiety and the higher their spiritual wellbeing. People with high self-esteem have a greater sense of their own value, think positively, seek meaning in life, consider their lives meaningful and valuable, and are spiritually healthy. In addition, those who are spiritually healthy can more appropriately manage and overcome circumstances that cause intense stress or bring them into contact with death.

LIMITATIONS

This study was carried out with data from the students of only one university, which makes it difficult to generalize the results to all university students. However, students at this university come from different regions of the country, and care was taken in the study design to maintain a balance among majors and regions.

CONCLUSION

This study confirms that self-esteem, death anxiety, and spiritual wellbeing have significant correlations. Accordingly, in order for university students to lead a healthy life and build a firm base while in the transitional period of attaining physical and psychological maturity and establishing their identity, there is a need for studies to develop, implement, and evaluate the results of consultation and educational programs at the university or regional/community level.

First, it is necessary to develop and implement programs for identifying the true self and promoting self-development to help students contemplate themselves and facilitate inner growth. Second, it is necessary to develop and implement programs for relieving death anxiety through training in having respect for life, the meaning of death, and preparation for death. Third, it is necessary to develop and implement programs for maintaining spiritual wellbeing such as psychological counseling and logotherapy.

REFERENCES

1. Lee Y. The relationship of spiritual well-being and involvement with depression and perceived stress in Korean nursing students. *Global Journal of Health Science*. 2014;6(4):169-76. <http://dx.doi.org/10.5539/gjhs.v6n4p169>
2. Taliaferro LA, Rienzo BA, Pigg RM, Miller MD, Dodd VJ. Spiritual well-being and suicidal ideation among college students. *Journal of American College Health*. 2009;58(1):83-90. <http://dx.doi.org/10.3200/JACH.58.1.83-90>
3. Jo KH, An GJ, Sohn KC. Qualitative content analysis of suicidal ideation in Korean college students. *Collegian*. 2011;18(2):87-92. <http://dx.doi.org/10.1016/j.colegn.2010.11.001>
4. Statistics Korea. 2013 Annual report on the cause of death statistics [Internet]. Seoul: Statistics Korea; 2014. [cited 2015 January 20]. Available from: http://kostat.go.kr/portal/korea/kor_nw/2/6/1/index.board?bmode=read&bSeq=&aSeq=330181&pageNo=1&rowNum=10&navCount=10&currPg=&sTarget=title&sTxt=
5. Birndorf S, Ryan S, Auinger P, Aten M. High self-esteem among adolescents: longitudinal trends, sex differences, and protective factors. *The Journal of Adolescent Health*. 2005;37(3):194-201. <http://dx.doi.org/10.1016/j.jadohealth.2004.08.012>
6. Dubois DL, Flay BR. The healthy pursuit of self-esteem: comment on and alternative to the Crocker and Park (2004) formulation. *Psychological Bulletin*. 2004;130(3):415-20. <http://dx.doi.org/10.1037/0033-2909.130.3.415>
7. Lyke J. Associations among aspects of meaning in life and death anxiety in young adults. *Death Studies*. 2013;37(5):471-82. <http://dx.doi.org/10.1080/07481187.2011.649939>
8. Adams TB, Bezner JR, Drabbs ME, Zambarano RJ, Steinhart MA. Conceptualization and measurement of the spiritual and psychological dimensions of wellness in a college population. *Journal of American College Health*. 2000;48(4):165-73. <http://dx.doi.org/10.1080/07448480009595692>
9. Papazisis G, Nicolaou P, Tsiga E, Christoforou T, Sapountzi-Krepia D. Religious and spiritual beliefs, self-esteem, anxiety, and depression among nursing students. *Nursing & Health Sciences*. 2014;16(2):232-8.

- http://dx.doi.org/10.1111/nhs.12093
10. Faul F, Erdfelder E, Lang AG, Buchner A. G*Power 3: a flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*. 2007; 39:175-91. <http://dx.doi.org/10.3758/BF03193146>
11. Rosenberg M. *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press; 1965.
12. Lee JY, Nam SK, Lee MK, Lee SM. Rosenberg' self-esteem scale: analysis of item-level validity. *The Korean Journal of Counseling and Psychotherapy*. 2009;21(Suppl. 1):173-89.
13. Seo HK. *An introduction to elderly death*. Seoul: Kyungchunsa; 2009.
14. Lester D, Abdel-Khalek A. The Collett-Lester Fear of Death Scale: a correction. *Death Study*. 2003;27(Suppl. 1): 81-5. <http://dx.doi.org/10.1080/07481180302873>
15. Paloutzian RF, Ellison CW. *Loneliness, spiritual well-being and the quality of life*. New York: John Wiley & Sons; 1982.
16. Cheung SD, Lee JB, Park HB, Kim JS, Bai DS, Lee KH, et al. A study on reliability and validity of the Korean version of spiritual well being scale. *Journal of Korean Neuropsychiatry Association*. 2001;40(2):230-42.
17. Kim KH, Kim KD, Byun HS, Chung BY. Spiritual well-being, self esteem, and attitude to death among nursing students. *Asian Oncology Nursing*. 2010;10(1):1-9.
18. Croghan IT, Bronars C, Patten CA, Schroeder DR, Nirelli LM, Thomas JL, et al. Is smoking related to body image satisfaction, stress, and self-esteem in young adults? *American Journal of Health Behavior*. 2006;30(3):322-33. <http://dx.doi.org/10.5993/AJHB.30.3.10>
19. Lawrence J, Ashford K, Dent P. Gender differences in coping strategies of undergraduate students and their impact on self-esteem and attainment. *Active Learning in Higher Education*. 2006;7(3):273-81. <http://dx.doi.org/10.1177/1469787406069058>
20. Lee YJ, Ko JJ. An effect of college students' stress, coping strategies and self-esteem on suicidal ideation. *Korean Association of Human Ecology Seminar*. 2010;1:154-5.
21. Creemers DHM, Scholte RHJ, Engels RCME, Prinsteinc MJ, Wiersd RW. Implicit and explicit self-esteem as concurrent predictors of suicidal ideation, depressive symptoms, and loneliness. *Journal of Behavior Therapy and Experimental Psychiatry*. 2012;43(1):638-46. <http://dx.doi.org/10.1016/j.jbtep.2011.09.006>
22. Russac RJ, Gatliff C, Reece M, Spottswood D. Death anxiety across the adult years: an examination of age and gender effects. *Death Studies*. 2007;31(6):549-61. <http://dx.doi.org/10.1080/07481180701356936>
23. Mooney DC. Tactical reframing to reduce death anxiety in undergraduate nursing students. *The American Journal of Hospice & Palliative Care*. 2005;22(6):427-32. <http://dx.doi.org/10.1177/104990910502200607>
24. Andrés AR, Halicioglu F. Determinants of suicides in Denmark: evidence from time series data. *Health Policy*. 2010;98 (issues 2-3):263-9. <http://dx.doi.org/10.1016/j.healthpol.2010.06.023>
25. Waite L, Das A. Families, social life, and well-being at older ages. *Demography*. 2010;47(Suppl.):S87-109. <http://dx.doi.org/10.1353/dem.2010.0009>
26. Shear MK, Skritskaya NA. Bereavement and anxiety. *Current Psychiatry Reports*. 2012;14:169-75. <http://dx.doi.org/10.1007/s11920-012-0270-2>
27. Wu YW, Su YJ, Chen CK. Clinical characteristics, precipitating stressors, and correlates of lethality among suicide attempters. *Chang Gung Medical Journal*. 2009;32(5):543-52.
28. Wnuk M, Marcinkowski JT. Do existential variables mediate between religious-spiritual facets of functionality and psychological wellbeing. *Journal of Religion and Health*. 2014;53(1): 56-67. <http://dx.doi.org/10.1007/s10943-012-9597-6>
29. Koenig H. *Faith and mental health: religious resources for healing*. Philadelphia: Templeton Foundation Press; 2005.
30. Routledge C. Failure causes fear: the effect of self-esteem threat on death-anxiety. *The Journal of Social Psychology*. 2012;152 (6):665-9. <http://dx.doi.org/10.1080/00224545.2012.691915>