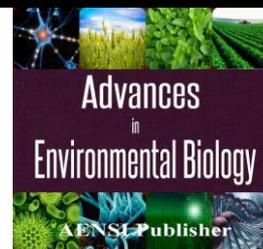




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## Investigating the relationship between social problem solving and emotion-focused coping styles for educational stress in male and female master day students at state Universities of Tehran city

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### ABSTRACT

This study investigates the relationship between social problem solving and emotion-focused coping styles for educational stress in female and male master day students at state universities of Tehran. The statistical population of this study consists of 56748 male and female master day students at state universities of Tehran during the academic year of 2011-2012. The information of statistical population is obtained from the Institute of Research and Planning in Higher Education and then the sample size is obtained through stratified sampling and by Morgan Table. The researcher-made questionnaire according to standard questionnaire (SPSI-R) is utilized to measure the social problem solving. The Coping Inventory for Stressful Situations (CISS) is applied to measure the stress coping style. The Kolmogorov-Smirnov and Pearson correlation coefficient tests are utilized to estimate the results of hypotheses and obtain the necessary values for statistical analysis. According to the correlation coefficients, there is a significant relationship between the emotion-focused coping style for stress and impulsive style of problem solving in both male and female students and this relationship is stronger in female students.

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## INTRODUCTION

Stress is a general experience in all human lives [30]. Therefore, more attention is paid on the sources of stress and its coping styles in recent years and it is shown that the application of effective coping styles plays the important role in reducing the stress [16]. Good problem solving ability, enough experience, availability of appropriate support system, a good sleep and appropriate individual hygiene and a balanced lifestyle are the factors which affect the use of coping styles. [20]

Social problem solving is a process which the individual applied to identify and explore the adaptive coping responses to deal with specific stressful situation in everyday life [9]. The problem solving model was first introduced by D'Zurilla and Goldfried and then completed by D'Zurilla and Nezu and Maydeu-Olivares. Based on the integration of original model for social problem solving and dimensional experimental data obtained from factor analysis of Social Problem Solving Inventory, D'Zurilla *et al* [11] made a five-dimensional modified model of social problem solving. Two dimensions of problem orientation include Positive Problem Orientation (PPO) and Negative Problem orientation (NPO), while three styles of problem solving involves the rational problem solving (RPS) (I.e., the efficient problem-solving skills), Impulsive/Carelessness Style (ICS) and Avoidance Style (AS). Positive problem orientation and rational problem solving are the constructive dimensions which increase the likelihood of positive outcomes, while the negative problem orientation, Impulsive/Carelessness Style and Avoidance Style are the non-functional dimensions which probably prohibit or destroy the successful problem solving and thus it results in negative, personal or social consequences. Positive problem orientation and rational problem solving are the constructive dimensions which increase the likelihood of positive returns, while the negative problem orientation, Impulsive/Carelessness Style and

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avoidance style are the inefficient dimensions which may prohibit or destroy the likelihood of effective problem solving and thus it results in negative individual and social consequences.

For educational stress, it can be argued that some of the students increasingly suffer from mental health problems due to the experience of high levels of educational stress. This is especially true for those students who are commuting from home to university. However, it is also important to note that all students' experienced stress is not negative. Anderson & Pulich [1], Schafer [26] emphasizes that the stress has a positive effect on the individual ability to provide an effective response to an immediate affair. Therefore, since the experience of stress is an integral part of students' academic life and due to being less considered as the research priority in numerous studies on student population's stress, this study investigates the relationship between the students' social problem solving and coping styles for educational stress.

The stress coping styles in Coping Inventory for Stressful Situations (CISS) consist of three main styles and their inventory is introduced by Endler and Parker:

**The avoidance coping style:** The avoidance coping strategies require the cognitive activities and changes with the aim to avoid the stressful situations. The avoidance coping behavior may appear as the engagement in a new activity or involving in the community and communicating with other people.

**Problem-focused coping style:** It describes the ways based on which the person considers the actions which should do for reducing or eliminating the stress. The problem-focused actions include searching for more information about the problem, changing the cognitive structure of problem, and giving the priority to affairs for dealing with problem.

**Emotion-focused coping style:** It describes the ways based on which the people focus on themselves and all their efforts are on the reduction of unpleasant feelings. [18]

Studies have indicated that the people, who are equipped with a set of coping skills and abilities, are more successful in dealing with the problems because the utilization of effective coping responses helps them to overcome the physical and mental problems, interpersonal and social relationship and conflicts; thus these people have better quality of life and mental health [17].

Several researchers believe that most of the students, who suffer from homesickness, are weak in social interaction particularly communicating and receiving support [3,4]. The social anxiety is one of the most common types of anxiety disorders diagnosed by a prominent and persistent fear of social or functional situations in which a person may be assessed [1].

Shokri [29] examined the moderating effects of cultural and gender groups in the relationship between perceived social support and educational stress among male and female Iranian and Swedish students. In general, the results of this study on predicting the stressful academic experiences in students have emphasized on dissimilar interactional characteristics of social support concept in two cultures and in contrast, the similar perceived social support interactional characteristics in both genders. Abolghasemi investigated the effectiveness of coping with stress on the impaired attitudes and social problem-solving skills in patients with breast cancer. The results of analysis of variance through repeated measures indicate that the ways for coping with stress have a positive effect on improving the impaired attitudes and social problem solving skills in patients with breast cancer. Taghilou examined the relationship between psychological distress and social problem-solving variables through structural equation modeling. The results indicate that the non-adaptive problem solving dimension has a direct and positive effect on the psychological distress, but the adaptive problem solving has no significant effect on psychological distress. Shokri [29] studied the regulatory role of coping styles on academic stress and educational achievement in students. The results of correlation among the variables indicate that there is a negative relationship between the academic stress and educational achievement, a positive relationship between problem-focused coping style and educational achievement, a negative relationship between the avoidance and emotion-focused coping styles with educational achievement, negative relationship between the problem-focused coping style and academic stress, and a positive relationship between academic stress and emotion-focused and avoidance coping styles. Calaguas [6] investigated the parents, teachers and their expectations as the sources of academic stress. The results of research indicate that the academic stress is significantly different between men and women. KATSUNORI [22] examined the relationship between social problem solving and interpersonal competence in Japanese students. The results of implementing the social problem solving skill questionnaire indicate that there is a low correlation among the variables, but high among the subsidiary indexes. Bray *et al* [5] investigated the social problem solving in the borderline personality disorder and normal groups. The results indicate that the borderline personality disorder group has lower score in positive problem orientation and rational problem solving than the clinical control group. Kim and Seidlitz [23] found in a study on the students that the coping mechanisms applied by students include the problem solving, individuals' support, regression and having fun.

#### *Research Methodology:*

This study is correlative-descriptive in terms of objective and has the survey type according to the data collection method. The data is collected through the questionnaire and field survey method and then analyzed by

SPSS software. The statistical population of this study consists of 56748 male and female master day students at state universities in Tehran during the academic year of 2011-12 (approved statistics by the Ministry of Science in 2011-12). A total of 382 questionnaires is distributed among 56748 members of statistical population by Morgan Table and since 57% of population is female students and the others male, thus from a total of 382 questionnaires, 218 questionnaires distributed among the female students and 164 ones among the male students.

#### Collection tool:

The researcher-made questionnaire is applied by considering the standard questionnaire (SPSI-R) and expert professors' guidance in order to measure the social problem solving issue. The Coping Inventory for Stressful Situations (CISS) is introduced by Endler and Parker [14] to assess different types of coping styles in stressful situations and it is also utilized in this study to measure coping styles for students' stress.

#### Results:

In this section, the data obtained from the questionnaire is processed by SPSS and Excel statistical software. The obtained results are summarized and provided along with tables and diagrams, and analysis. The demographic data and subjects' ways of responding to the questionnaires are initially investigated by descriptive statistics, and then the hypothesis test is done in inferential statistical section through the appropriate statistical methods.

#### Descriptive statistics of samples' demographic data:

According to the following table, 57% of samples are female and 43 percent male.

**Table 1:** Frequency and frequency percentage of samples based on gender

| Gender | Frequency | Percentage |
|--------|-----------|------------|
| Female | 218       | 0.57       |
| Male   | 164       | 0.43       |
| Total  | 382       | 0.100      |

According to the following table, 35.1% of samples are educating in engineering and technical group, 30.1% in basic sciences, 13.6% in language, 11% in Art, and 10.2% in medical group.

**Table 2:** Frequency and frequency percentage of samples based on the educational group

| Group                     | Frequency | Percentage |
|---------------------------|-----------|------------|
| Engineering and technical | 134       | 35.1       |
| Basic sciences            | 115       | 30.1       |
| Art                       | 42        | 11         |
| Language                  | 52        | 13.6       |
| Medicine                  | 39        | 10.2       |
| Total                     | 382       | 100.0      |

#### Descriptive statistics of research variables:

According to the following table, the avoidance problem solving has the highest mean among the variables of questionnaire.

**Table 3:** Frequency and frequency percentage of social problem solving questionnaire variables

| Variable                     | Mean   | Standard deviation | Minimum | Maximum | Total   |
|------------------------------|--------|--------------------|---------|---------|---------|
| Positive Problem Orientation | 3.4271 | 0.64848            | 1.5     | 5.00    | 1309.17 |
| Negative Problem Orientation | 3.5509 | 0.58980            | 2.25    | 5.00    | 1356.45 |
| Rational Problem Solving     | 3.2127 | 0.60499            | 1.81    | 5.00    | 1227.24 |
| Impulsive Style              | 3.2488 | 0.54600            | 1.80    | 4.5     | 1241.05 |
| Avoidance Style              | 3.5673 | 0.60907            | 1.40    | 5.00    | 1362.70 |

**Table 4:** Frequency and frequency percentage of coping style questionnaire variables

| Variable                     | Mean | Standard deviation | Minimum | Maximum | Total |
|------------------------------|------|--------------------|---------|---------|-------|
| Emotion-focused coping style | 3    | 0.205              | 2       | 4       | 1146  |

#### Inferential statistics:

Investigating the relationship between social problem-solving abilities and emotion-focused coping styles in female and male students

Kolmogorov-Smirnov test is utilized to investigate the normality of data. Since the significance level in social problem solving style is less than 0.05 for variables, namely, the positive problem orientation, negative

problem orientation, avoidance style, and impulsive style, the normal distribution of target population is rejected at the confidence level of 95%, but the significance level is higher than 0.05 for rational problem solving, thus the population distribution is normal. The significance level is less than 0.05 in stress coping styles and the normal distribution of target population is rejected at the confidence level of 95%.

In general, since some of the variables are normal in population and the others abnormal, the non-parametric tests are applied to test these variables.

Investigating the relationship between emotion-focused coping and avoidance problem solving styles in female and male students:

**Table 5:** Spearman's correlation coefficient test for investigating the relationship between avoidance problem solving and emotion-focused coping styles in female students

| Avoidance problem solving style in female students | Spearman's correlation coefficient | Significance level |
|--|------------------------------------|--------------------|
| Emotion-focused coping style                       | -0.027                             | 0.692              |

**Table 6:** Spearman's correlation coefficient test for investigating the relationship between avoidance problem solving and emotion-focused coping styles in male students

| Avoidance problem solving style in male students | Spearman's correlation coefficient | Significance level |
|--|------------------------------------|--------------------|
| Emotion-focused coping style                     | 0.008                              | 0.923              |

According to the significant values of test above, the emotion-focused stress coping style has no significant relationship with avoidance problem solving style at the error level of 5% in both male and female students.

Investigating the relationship between emotion-focused coping and rational problem solving styles in male and female students:

**Table 7:** Spearman's correlation coefficient test for investigating the relationship between rational problem solving and emotion-focused coping styles in female students

| Rational problem solving style in female students | Spearman's correlation coefficient | Significance level |
|---|------------------------------------|--------------------|
| Emotion-focused coping style                      | 0.018                              | 0.796              |

**Table 8:** Spearman's correlation coefficient test for investigating the relationship between rational problem solving and emotion-focused coping styles in male students

| Rational problem solving style in male students | Spearman's correlation coefficient | Significance level |
|---|------------------------------------|--------------------|
| Emotion-focused coping style                    | 0.119                              | 0.128              |

According to the significant values of test above, the emotion-focused stress coping style has no significant relationship with rational problem solving style at the error level of 5% in both male and female students.

Investigating the relationship between emotion-focused coping and impulsive problem solving styles in male and female students:

**Table 9:** Spearman's correlation coefficient test for investigating the relationship between impulsive problem solving and emotion-focused coping styles in female students

| Impulsive problem solving style | Spearman's correlation coefficient | Significance level |
|---------------------------------|------------------------------------|--------------------|
| Emotion-focused coping style    | 0.959                              | 0                  |

**Table 10:** Spearman's correlation coefficient test for investigating the relationship between impulsive problem solving and emotion-focused coping styles in male students

| Impulsive problem solving style | Spearman's correlation coefficient | Significance level |
|---------------------------------|------------------------------------|--------------------|
| Emotion-focused coping style    | 0.943                              | 0                  |

According to the significant values of test above, the emotion-focused stress coping style has a significant relationship with impulsive problem solving style at the error level of 5% in both male and female students. Furthermore, according to the correlation coefficients, there is a stronger relationship between the emotion-focused stress coping style and impulsive problem solving style in female students.

Investigating the relationship between emotion-focused coping and positive problem-solving orientation styles in male and female students:

**Table 11:** Spearman's correlation coefficient test for investigating the relationship between positive problem-solving orientation and emotion-focused coping styles in female students

| Positive problem-solving orientation in female student | Spearman's correlation coefficient | Significance level |
|--|------------------------------------|--------------------|
| Emotion-focused coping style                           | 0.027                              | 0.695              |

**Table 12:** Spearman's correlation coefficient test for investigating the relationship between positive problem-solving orientation and emotion-focused coping styles in male students

| Positive problem-solving orientation in male student | Spearman's correlation coefficient | Significance level |
|--|------------------------------------|--------------------|
| Emotion-focused coping style                         | 0.151                              | 0.053              |

According to the significant values of test above, the emotion-focused stress coping style has no significant relationship with positive problem-solving orientation at the error level of 5% in both male and female students.

Investigating the relationship between emotion-focused coping and negative problem-solving orientation styles in male and female students:

**Table 13:** Spearman's correlation coefficient test for investigating the relationship between negative problem-solving orientation and emotion-focused coping styles in female students

| Negative problem-solving orientation in female student | Spearman's correlation coefficient | Significance level |
|--|------------------------------------|--------------------|
| Emotion-focused coping style                           | -0.38                              | 0.574              |

**Table 14:** Spearman's correlation coefficient test for investigating the relationship between negative problem-solving orientation and emotion-focused coping styles in male students

| Negative problem-solving orientation in male student | Spearman's correlation coefficient | Significance level |
|--|------------------------------------|--------------------|
| Emotion-focused coping style                         | 0.007                              | 0.931              |

According to the significant values of test above, the emotion-focused stress coping style has no significant relationship with negative problem-solving orientation at the error level of 5% in both male and female students.

### Conclusion:

Different types of experimental evidence indicate that the education life experience is determined through exposure to a variety of stressors for most of the school and university students. [29,24]

However, most of the researchers, interested in the subject of academic stress studies, have found a difference in the effectiveness of individuals' preferred models of response to stressors in academic situations affects the description, prediction and control of students' stressful experiences. [21] In other words, the results of some studies indicate that it is essential to pay attention to the role of personal differences with an emphasis on some psychological qualities such as resilience (Wilks & Spivey) tenacity (Hystad, Eid, Laberg, Johnsen & Bartone) and educational stress coping styles (Sarid, Anson, Yaari, & Margalith) in order to explain the variability of stressful educational experience levels.

The research findings indicate that 57% of students are female and 43% male. Furthermore, 35.1 percent of students are educating in technical group, 30.1% in basic sciences, 11% in the art, 13.6% in English, and 10.2% in medical group. Among the variables of social problem solving, the avoidance problem solving variable has the highest rate and among the variables of stress coping style, the emotion-focused coping style has the highest score. Spearman's correlation coefficient test is applied to examine the relationship between social problem-solving ability with emotion-focused coping styles in female and male students. Given the correlation coefficients, there is a significant relationship between the emotion-focused stress coping and impulsive problem solving styles in both male and female students and this relationship is stronger in female students. According to the research results, under which the students utilize the emotion-oriented styles, it is suggested conducting the interventional studies about the effect of educational-consultative programs on increasing the students' knowledge about the factors affecting the mental health and better and further use of effective coping styles. Given that this research is conducted on male and female students at day state universities of Tehran, it is suggested expanding the research domain. Given that the teachers play the important roles in education, it is recommended investigating the variables and factors such as individual differences, environmental and organizational factors and various personality variables with subjective well-being rate.

### REFERENCES

- [1] Anderson, P., and M. Pulich, 2001. Managing workplace stress in a dynamic environment. *The Healthcare Manager*, 19(3): 1-10.
- [2] Andrews, G., S. Henderson and W. Hall, 2001. Prevalence, comorbidity, disability and service utilization. Overview of the Australian National Mental Health Survey. *British Journal of Psychiatry*, 178: 145-153.
- [3] Azais, F., B. Granger, Q. Debray, C.X. Ducroxi, 1991. Cognitive and emotional approach to assertiveness. *L'encephale*., 25(4): 353-357.
- [4] Benn, L., J.E. Harvey, P. Gilbert, C. Irons, 2005. Social rank, interpersonal trust and recall of parental rearing in relation to homesickness. *Personality and individual differences*., 8(38): 1813-1822.
- [5] Bray, S., C. Barrowclough and Lobban, 2007. The Social Problem-Solving Abilities of People with Borderline Personality Disorder, *Behavior Research and Therapy*, 45(6): 1409-1417.
- [6] Calaguas, Glenn M., 2013. Parents/teachers and self-expectations as sources of academic stress, *International Journal of Research Studies in Psychology* January, 2(1): 43-52.
- [7] D'Zurilla, T.J., 1986. Problem-solving therapy: A social competence approach to clinical intervention. New York: Springer.
- [8] D'Zurilla, T.J., and M.R. Goldfried, 1971. Problem solving and behavior modification. *Journal of Abnormal Psychology*, 78: 107-126.

- [9] D'Zurilla, T.J., and A. Nezu, 1980. A study of the generation-of-alternatives process in social problem solving. *Cognitive Therapy and Research*, 4: 67-72.
- [10] D'Zurilla, T.J., and A.M. Nezu, 1999. *Problem-solving therapy: A social competence approach to clinical intervention* (2nd ed.). New York: Springer.
- [11] D'Zurilla, T.J., A.M. Nezu and A. Maydeu-Olivares, 2002. *Manual for the social problem solving inventory-revised* (pp.211-244). North Tonawanda, NY: Multi- Health Systems.
- [12] D'Zurilla, T.J., A.M. Nezu and A. Maydeu-Olivares, 2002. *The social problem solving inventory-revised (SPSI-R): technical manual*. North Tonawanda, NY: Multi-Health Systems, Inc.
- [13] D'Zurilla, T.J., A. Maydeu-Olivares, D. Gallardo-Pujol, 2011. Predicting social problem solving using personality traits. *Personality and Individual Differences.*, 50: 142-147.
- [14] Endler, N.S. and J.D.A. Parker, 1990. "State and trait anxiety, depression and coping styles", *Australian Journal of Psychology*, 42(2): 207-220.
- [15] Endler, N.D., and J.D.A. Parker, 1990. Multidimensional assessment of coping: A critical evaluation. *Journal of personality and social psychology*, 58(5): 844-854.
- [16] Foruzandeh, N., M. Delaram, 2003. [Effects of cognitive behavioral therapy on the coping strategies of non-medical students of Shahrekord University of Medical Sciences]. *Journal of Shahrekord University of Medical Sciences*; 5(3): 26-34. (Persian)
- [17] Garnefski, N.S., V. Kraaij, 1997. Relationships between cognitive strategies of adolescents and depressive symptomatology across different types of life events. *J Youth Adolescent*, 10(32): 401-8.
- [18] Halamandaris, K.F., K.G. Power, 1999. Individual differences, social support and coping with the examination stress: A study of the psychosocial and academic adjustment of first year home students. *Personal Individ Differences*, 26(4): 665-85.
- [19] Hystad, S.W., J. Eid, J.C. Laberg, B.H. Johnsen and P.T. Bartone, 2009. Academic stress and health: Exploring the moderating role of personality hardiness. *Scandinavian Journal of Educational Research*, 53(5): 421-429.
- [20] Inal, J.M., U. Fairbrother, S. Heugh, 2013. Microvesiculation and disease. *Biochem Soc Trans*, 41: 237-240.
- [21] Karatzias, A., K.G. Power, J. Fleming, F. Lennan and V. Swanson, 2002. The role of demographics, personality variables and school stress on predicting school satisfaction/dissatisfaction: Review of the literature and research findings. *Educational Psychology*, 22(1): 33-50.
- [22] Katsunori Sumi, 2011. Relations of Social Problem Solving With Interpersonal Competence in Japanese Students. *Psychological Reports.*, 109: 976-982. Michele Dauber, *Annotated Bibliography Regarding Social-Emotional Learning and Academic Stress*, October 2011.
- [23] Kim, Y., and L. Seidlitz, 2002. Spirituality moderates the effect of stress. *Personality and Individual Differences*, 32: 1377-1390.
- [24] Saklofske, D.H., E.J. Austin, S.M. Mastoras, L. Beaton and S.E. Osborne, 2012. Relationships of personality, affect, emotional intelligence and coping with student stress and academic success: Different patterns of association for stress and success. *Learning and Individual Differences*, 22: 251-257.
- [25] Sarid, O., O. Anson, A. Yaari and M. Margalith, 2004. Coping styles and changes in humoural reaction during academic stress. *Psychology, Health and Medicine*, 9(1): 85-98.
- [26] Schaffer, H.R., 1996. *Social Development*. Oxford: Blackwell (translated into 6 languages).
- [27] Seif, Ali-Akbar, 2013. translation, social problem solving.
- [28] Shikai, N., M. Uji, Z. Chen, H. Hiramura, N. Tanaka, M. Shono, 2007. The role of coping styles and self-efficacy in the development of dysphoric mood among nursing students. *Journal of Psychopathology and Behavioral Assessment.*, 29(4): 241-248.
- [29] Shokri, A., Z. Daneshvarpour, M. Molaei, Z. Naghsh, R. Torkhan and F. Kehtari, 2008. Factor structure of stress Index resulted from the academic expectations, *Iranian Quarterly Journal of Psychology*, 16: 376-367.
- [30] Varcarolis, E.M., 2002. *Foundation of psychiatric mental health nursing: A clinical approach*. 4th ed. Philadelphia: W. B. Saunders; pp: 266.
- [31] Wang, H.F., M.C. Yeh Stress, 2005. coping, and psychological health of vocational high school nursing.
- [32] Wilks, S.E., and C.A. Spivey, 2009. Resilience in undergraduate social work students: Social support and adjustment to academic stress. *Social Work Education: The International Journal*, 14: 1227-1470.