THE COMPARATIVE EFFECTS DIFFERENT WAYS OF LEARNING COPING WITH STRESS IN IMPROVE COPING SKILLS LADIES NURSES IN 520 ARTESH HOSPITAL KERMANSHAH

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Abstract
The main goal of this research in recognition and comparing the influence of Speech teaching methods, collaborative discussion and programming teaching upon the Strategic confronting of the stressful occupational factors in the nurses. The research method is experimental by using the multigrain pre-test and post-test. The statistical group of this research is the whole 200 nurses of the Kermanshah 520 Military hospital in 2013. Among them about 45 nurses wanted to participate in the retraining periods whom Selected as random Statistical sample and the divided as there groups of 15 participants, The Stress confronting methods test Candler & Parker: 1990) was taken from those three above groups. All the three above groups have been taught based on the Speech, Collaborative discussion and programming method during the 5 Sessions. Again, the every above groups examined based on the Stress confronting test at the end of the period and then all the results analyzed by using the Covariance analysis test. The results showed that these teaching methods results in highly improvement of confronting Styles of the stressful factors. Also, the results showed that the Speech method and Collaborative discussion are very better than the programming teaching upon the Strategic confronting styles of Problem based Stressful factors in nurses. But, Programming teaching method highly influences upon the Confronting Styles of method- based and prohibition- based in the nurses, too. Therefore, it’s better to use various teaching methods for teaching the Confronting Styles of Stress full factors.

Keyword: Specking, Collaborative Discussion, Programming Teaching, Confronting methods, Occupational Stress, Nurses.

Introduction
In today's world, stress, more than any other factor, is caused by pressure of too much work or undertaking heavy responsibilities. Both the home and the workplace can be the scene of arising physical and emotional turmoil’s and stresses that occurs gradually and if they are ignored, they will become serious health hazards (Ariyan, 2001).
In people’s lives, one of the main causes of stress is their job. For each person, his job is the constituent element forming his social identity and relationships and supplying his life needs; as a result, people’s job is considered as a great resource for stress. Actually, there is more stress in
occupations where human, medical, and educational communication is concerned (Keyqobadi, 2002).

If occupational stress is excessive, it can cause physical and psychological effects, endanger the health, and degrade the performance by threatening organizational goals (Kitten and Newstorm, 1999).

According to statistics, stress and its complications cause hundreds of working days to be lost every year; daily, an average of a million people refrain from attending work due to stress-related morbidity disorders and 4% of work time is lost because of job dissatisfaction and stress-related absence (Sutherland and Cooper, 1997).

Studies also show that issues such as permanent dealing with patients, having responsibility for human health, doing clinical processes, dealing with dying patients, the lack of adequate facilities, dealing with emergency and unpredictable situations, loud noises at work, and shifts in circulation are among the professional stressors causing the reduction of patient care quality and employees' ability and commitment, job dissatisfaction, feelings of inadequacy, depression, the reduction of career values, aversion, exhaustion from work, absenteeism, delays, and sick leave absence in the health professions; as a result, the lives of patients and the quality of services are threatened (Decker Frederic, 1997).

Members of the health services, particularly nurses are people who experience high levels of stress in their daily professional life and stress is considered as a recognized component of modern nursing (Ritchie and Murray, 1997).

Due to the sensitivity of nursing job which encompasses communication with patients and taking care of them, it is necessary to identify and cope with the stresses of this job, because neglecting them will cause irreparable consequences. The continuance and exacerbation of stressors can lead to burnout in nurses. On the other hand, considering the heavy responsibility for caring of patients, any nurses' stress will be somehow reflected in the society. To create a comfortable environment and increase the capacity and efficiency of nurses, it is necessary to increase the ability to cope with stressors as well as reduce and remove them. In fact, failing to identify the stressors properly will result in dissatisfaction and burnout, which in turn, it can lead to the reduction of self-esteem, absenteeism, drugs abuse, and so forth (Charnley, 1999).

The studies on stress and its complications have shown that in response to stress, coping strategies are more important than the nature of stress itself. The more appropriate the methods are used to cope with stress, the less the damage caused by it will be (Lazaruse and Folkman, 1984).

In nursing education courses, it is essential to teach nursing students and practitioners the strategies of coping with stress so that they can acquire the ability to deal effectively with the stresses of their job. In this regard, there are different educational methods which are used by teachers more or less according to the experiences, interests, and working conditions. Among these methods, it can be pointed to lecturing and programmed instruction methods.

Lecturing method is one of the old and basic training methods having a long history in educational systems. In this method, the concepts are verbally presented by teacher and students learn them through listening and taking notes. In fact, in this method, a type of transfer of learning and mental relationship is created between the teacher and students. The most striking characteristics of this method are the role of teacher as the only active speaker and students as passive recipients; in other words, in teaching process, all factors are under the control of teacher (Shabani, 1992).

Programmed instruction method is an individual education system attempting to coordinate learning with students’ needs. Actually, the method has been established based on a set of behavioral objectives and can be considered as an application of learning psychology in teaching. In this method, training materials are split into small units that are called frame or step. Each step contains specific tasks through which the behavioral target of that frame is achieved. The steps are
adjusted based on students’ prior knowledge so that each step adds new information to their previous knowledge (Shabani, 1992).

There are several studies investigating the impact of lecturing and programmed instruction methods on learners’ learning process. Jones (1990) found that lecturing method is not a student-centered approach and does not attract students’ cooperation and compromise. In another study conducted by Fu-Jin Shih et al. (1999), it was found that 92% of people believed in lecture as a helpful way in spiritual care for patients. According to these findings, lecturing is helpful in three sections as: 1- helping to clarify abstract concepts of critically ill patients, 2- helping to learn how to provide spiritual care to patients in intensive care units (ICU), and 3- helping nurses to expose their personal beliefs and values about life goals, nursing, and spiritual needs. The results of a study conducted by Geranvald et al. (2003) showed that applying the programmed method causes users to move forward step by step for testing and building their knowledge of radiology and obtain the necessary information selectively and sequentially. This method is economically affordable and fits the needs of the target group.

Robinson et al. (2010) found that individual programmed instruction has greater impact on nurses’ performance compared to the method of justification meetings before and after surgery. Lancaster et al. (2012) studied the impact of lecturing and blended learning methods on MS nursing students learning. The results of this study showed that the blended method (a combination of traditional and technology-based learning) has greater impact on nurses’ performance in comparison to lecturing method. The results of another study conducted by Lewis et al. (2012) showed that using E-learning and providing simple and clear concepts at the level of average group leads to the success of learners. There is another study done by Shahsavari E. et al. (2004) as “nursing students’ learning of infection control principles: lecturing or programmed instruction” in which the results showed a significant difference between pre-test and post-test scores of the two groups. The students who were in programmed instruction group received higher scores compared to the control group. Fathi (2004) concluded that although there are many factors causing stress in nurses, most of them are modifiable. Also, these results show that teaching the methods of coping with stress to nursing students and nurses as well as holding meetings and having formal and informal conversations with staff are effective in reduction of their stress. In a study done by Ekouchakian et al. (2008), it was found that in the case of increasing the social support from nurses, the use of effective methods for coping with stress will be increased and in contrast, the ineffectific methods will be reduced. Tavangar et al. (2012) found in a research that nurses individually do efforts to reduce the conflict between work and family; although the efforts lead to the reduction of the conflict in some cases, they are mostly ineffective due to discontinuous and inadequate learning regarding the management of conflicts and dealing with them. Pejmankhah and Mirhaji (2012) concluded that learning through workshops and pamphlets had positive effects on the awareness of medical team about bioterrorism; however, the average of awareness in the workshop group was higher than the pamphlet group.

The results obtained by Sadeqnejad et al. (2012) indicate that before teaching, there was statistically no significant difference between the mean scores of puzzle and lecture groups in the medical emergencies course, but after teaching, a significant difference was observed between the mean scores of puzzle and lecture groups. The students’ feedback about the teaching methods indicated their positive view regarding the impact of puzzle teaching method on the participation of students in class, interest and motivation about class discussions, effective communication with classmaters, and deep learning. Soltani et al. (2012) in a study as “comparing two methods of teaching respiratory physiology course (lecturing and teaching in small groups) to medical students of Hormozgan University of Medical Sciences” found that the students were satisfied with the method of teaching in small groups and their mean scores increased using the method in...
comparison with the traditional method (lecturing). In fact, the results indicate that the retention of learned materials in the modern method is longer than the traditional one.

Masoumi et al. (2012) found that concept mapping method like lecturing method can improve learning and retention of nursing students, but the effect of concept mapping techniques on enhancing learning and retention is higher than the lecturing method. Pishgouyi et al. (2012) in a study as “comparing the impact of three methods including lecturing, problem solving, and self-learning with computer on drug calculation skills of nursing students at intensive care course” found that the three methods affected the students’ learning, but the effect of self-learning with computer was lower than the other two methods. The reason may be the lack of appropriate interaction between the student and the instructor and not allocating sufficient time for learning by the student.

In a study conducted by Mokhtari et al. (2012), the comparison between mean scores of pre-learning and post-learning tests showed the effectiveness of lecturing method. Since the lecturing method is an inexpensive, effective and attractive educational method, it can be widely used in education. On the other hand, this method makes it possible to increase the readiness of nurses in the shortest time and train them how to face with nuclear emergencies. Farshi et al. (2012) in a study as “comparing the impact of two methods of teaching nursing care (lecturing and software package) on levels of learning” found that both methods were effective; although no significant difference was observed between lecture and E-learning groups in the post-test stage, the software method was more effective in the retention stage. Experts believe that stress is one of the factors affecting the physiological and psychological health and the cause of 50-80% of diseases (Long et al., 2003). Nurses and nursing students experience high levels of stress in their workplaces (Shipton, 2002). The stress not only causes educational failure, but also influences the personality development and can cause many undesirable behaviors (Ariner, 1992). In addition, stress can causes students to be overwhelmed with anxiety which can adversely affect their ability and paralyze their effective performance (Edelman, 2005).

Thus, it is necessary to teach nurses the ways of coping with stress. In this regard, it is very important to specify the method used for this purpose, because choosing an appropriate method to cope with stress can significantly reduce the adverse effects of occupational stress in nurses.

The present study investigates the impact of teaching coping strategies in two ways (including lecturing and programmed instruction methods) on improvement of stress coping skills in female nurses of Army Hospital (No. 520) in Kermanshah-Iran. The main purpose of this research is to assess if training the coping skills is effective in increasing the stress coping skills in nurses or not. Also, it is attempted to evaluate the impact of two methods including lecturing and programmed instruction on stress coping skills in female nurses.

**The methodology**

The research population consists of all nurses working in Army Hospital (No. 520) in Kermanshah-Iran; accordingly, the number of population is reported equal to 200 people. The statistical sample consists of 30 people (15 people in lecturing group and 15 people in programmed instruction group). The samples have been randomly selected from nurses being applicant to participate in retraining courses held in Army Hospital (No. 520) in Kermanshah-Iran. The research is an experimental study based on a two-group pretest-posttest design. In this regard, a group was trained by the programmed instruction method and the other group by the lecturing method. Before implementing the design, the coping inventory for stressful situations (CISS) was distributed among the samples (pretest). The test groups were trained by lecturing and programmed instruction methods during five sessions. At the end, both groups were tested by the test related to CISS questionnaire (posttest) and the results were compared.

In this study, the coping inventory for stressful situations (CISS) was used as the main tool for collecting data. The questionnaire developed by Parker and Endler (1990) has been translated into
Persian by Akbarzadeh (1997). The questionnaire includes 48 items whose answers are scored based on the 5-point Likert scale (from never (1) to always (5)). The CISS questionnaire includes three main coping strategies: 1) problem-focused coping or actively dealing with the problem to manage and solve it; 2) emotion-focused coping or focusing on emotional responses to the question; 3) avoidant coping or escaping from the problem. The range of scores gained by a person in each of these three coping strategies is 16 to 80. Actually, the higher score obtained from any of these strategies specifies the way by which the person copes with problems.

To obtain the reliability of the questionnaire “coping with stress”, Cronbach’s alpha has been calculated in students’ group. Regarding the problem-focused coping strategy, the values of 0.92 and 0.85 were obtained for males and females, respectively; in emotion-focused coping strategy, the values of 0.82 and 0.85 were obtained for males and females, respectively; and in avoidant coping strategy, the values of 0.85 and 0.82 were obtained for males and females, respectively (Fotovat Ahmadi, 2001). According to the results of the study conducted by Ghoreishi, the reliability of the questionnaire was obtained at a high rate (0.8133) through Cronbach's alpha.

The validity of this questionnaire has been confirmed by the various studies previously conducted in Iran. The Pearson’s correlation coefficient was used to calculate the correlation between the factors of the questionnaire and accordingly the values of 0.58, 0.55, and 0.93 were obtained as the coefficients of problem-focused, emotion-focused, and avoidant coping strategies, respectively.

To analyze the data, the indices of mean and standard deviation from inferential statistics test of covariance analysis was used in addition to descriptive statistics such as the frequency distribution tables and percentages.

Findings

To compare the impact of methods of teaching coping strategies on stress coping skills in female nurses, the required data were collected using an experimental method along with a two-group pretest-posttest design. Fifteen people participated in pretest and posttest of each group. Table 1 shows the pretest and posttest scores of stress coping skills of groups.

Table 1: the description of pretest and posttest scores of stress coping skills of groups

<table>
<thead>
<tr>
<th>Skills</th>
<th>The group</th>
<th>Pretest</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>X</td>
<td>S</td>
</tr>
<tr>
<td>problem-focused</td>
<td>Programmed instruction</td>
<td>43.33</td>
<td>11.25</td>
</tr>
<tr>
<td></td>
<td>Lecturing</td>
<td>46.40</td>
<td>14.23</td>
</tr>
<tr>
<td>emotion-focused</td>
<td>Programmed instruction</td>
<td>23.67</td>
<td>10.09</td>
</tr>
<tr>
<td></td>
<td>Lecturing</td>
<td>16.80</td>
<td>11</td>
</tr>
<tr>
<td>avoidant</td>
<td>Programmed instruction</td>
<td>20.87</td>
<td>7.63</td>
</tr>
<tr>
<td></td>
<td>Lecturing</td>
<td>22.40</td>
<td>6.67</td>
</tr>
</tbody>
</table>

According to table 1, the mean scores of problem-focused skill for programmed instruction group in pre and post tests are 43.33 and 46.53, respectively, but regarding the lecturing group, the mean scores of problem-focused skill in pre and post tests are 46.40 and 52.93, respectively. Also, the mean scores of emotion-focused skill for programmed instruction group in pre and post tests are 23.67 and 24.40, respectively and for lecturing group in pre and post tests are 16.80 and 14.27, respectively. Accordingly, the mean scores of avoidant skill for programmed instruction group in pre and post tests are 20.87 and 24.73, respectively, and for lecturing group in pre and post tests are 20.40 and 17.87, respectively.

To analyze the research hypothesis, the univariate and multivariate covariance analysis test was used after assessing the assumptions. Kolmogorov-Smirnov test was used to evaluate the
distribution normality of groups’ coping skills in pre- and post- tests. The results showed that the
distribution of coping skills scores is normal for groups’ pre- and post- tests (P>0.05).
To evaluate the linearity between the data of groups’ coping skills in pre- and post- tests, the
scattering matrix of data was plotted. The results showed that there is a linear relationship
between the pre- and post- test data of groups’ coping skills. As a result, the assumption
indicating that there is a linear relationship between scores of dependent and covariance variables
in groups is confirmed.
The Pearson’s correlation coefficient was used to evaluate the absence of multicollinearity
between pre and post-test data of groups’ coping skills. The results showed that all correlation
coefficients calculated between each pair of dependent variables of groups are not more than 0.90;
hence, it is concluded that there is no multicollinearity between dependent variables of groups.
Multivariate analysis of covariance was used to evaluate the homogeneity of regression slopes
of pre-and post-test scores of groups’ coping skills. The results showed that the regression slopes of
pre-and post-test scores of groups’ coping skills are homogenous (P>0.05).
The Box test was used to evaluate the homogeneity of variance-covariance matrix of scores for
groups’ coping skills. The results showed that the variance-covariance matrix of scores for
groups’ coping skills is homogenous ($F_{(6, 5680.302)} = 0.818, P = 0.556$).
The Levene test was used to evaluate the homogeneity of scores variances of groups’ coping
skills. The results showed that there was no significant difference between the scores variances of
emotion-focused and avoidant coping skills of groups (P>0.05). Thus, it can be concluded that the
variances are homogenous’ however, a significant difference was observed between the scores
variances of problem-focused coping skills of groups (P<0.05). Since the numbers of people in
both groups are equal, the analysis of covariance can be used regardless of this assumption
(Shiulson, 2003).

Table 2: the summary of results obtained from the multivariate covariance analysis test of
“teaching impact on groups’ coping skills”

<table>
<thead>
<tr>
<th>Effect</th>
<th>Value</th>
<th>F</th>
<th>df of hypothesis</th>
<th>Wrong df</th>
<th>P</th>
<th>Partial η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wilk’s lambda</td>
<td>0.382</td>
<td>12.391</td>
<td>3</td>
<td>23</td>
<td>0.0001</td>
<td>0.618</td>
</tr>
</tbody>
</table>

Regarding the first hypothesis of the research, the results obtained from the multivariate
covariance analysis test showed that teaching coping strategies significantly affect the stress
coping skills in female nurses and its effect is as much as 62% ($F_{(3, 23)} = 12.391, P < 0.01$; Wilk’s Lambda = 0.382; Partial η² = 0.618). Therefore, the first hypothesis of the
research is confirmed; hence, in the following, the impact of teaching on coping skills of groups
was separately evaluated by simple covariance test using the Bonferroni’s adjusted alpha. Table 3
shows the results of the evaluation.

Table 3: the summary of results obtained from the covariance analysis test “the impact of
different teaching methods on groups’ coping skills”

<table>
<thead>
<tr>
<th>The source of changes</th>
<th>Skills</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>P</th>
<th>Partial η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problem-focused</td>
<td></td>
<td>164.944</td>
<td>1</td>
<td>164.944</td>
<td>5.158</td>
<td>0.171</td>
<td></td>
</tr>
<tr>
<td>Emotion-focused</td>
<td></td>
<td>193.112</td>
<td>1</td>
<td>193.112</td>
<td>14.474</td>
<td>0.367</td>
<td></td>
</tr>
</tbody>
</table>
The results obtained from simple covariance showed that teaching significantly affects the problem-focused \((F_{1.25} = 5.158, P < 0.05)\), emotion-focused \((F_{1.25} = 14.474, P < 0.01)\), and avoidant \((F_{1.25} = 23.296, P < 0.01)\) coping skills. Hence, the Bonferroni’s pairwise comparison test was used to compare the impact of each teaching method on coping skills. Table 4 shows the results of this comparison.

Table 4: the summary of results obtained from Bonferroni’s test for comparing the impact of teaching methods on groups’ coping skills

<table>
<thead>
<tr>
<th>Skills</th>
<th>Teaching method</th>
<th>Mean difference</th>
<th>Standard deviation</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem-focused</td>
<td>Programmed</td>
<td>-5.003</td>
<td>2.203</td>
<td><strong>0.032</strong></td>
</tr>
<tr>
<td></td>
<td>Lecturing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotion-focused</td>
<td>Programmed</td>
<td>5.414</td>
<td>1.426</td>
<td><strong>0.001</strong>)</td>
</tr>
<tr>
<td></td>
<td>Lecturing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avoidant</td>
<td>Programmed</td>
<td>7.406</td>
<td>1.534</td>
<td><strong>0.0001</strong>)</td>
</tr>
<tr>
<td></td>
<td>Lecturing</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**P < 0.01, *P < 0.05**

Regarding the second hypothesis of the research, the results of Bonferroni’s post hoc test show that the programmed instruction and lecturing methods significantly affect problem-focused (at the level of P<0.05), emotion-focused (at the level of P<0.01), and avoidant (at the level of P<0.01) coping skills. Thus, the second hypothesis is confirmed and it is concluded that different teaching methods have different effects on stress coping skills in female nurses. Table 5 shows the results.

Table 5: comparing the mean effect of teaching methods on coping skills

<table>
<thead>
<tr>
<th>Coping skills</th>
<th>The teaching method</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem-focused</td>
<td>Programmed instruction</td>
<td>47.232</td>
</tr>
<tr>
<td></td>
<td>Lecturing</td>
<td>52.235</td>
</tr>
<tr>
<td>Emotion-focused</td>
<td>Programmed instruction</td>
<td>22.040</td>
</tr>
<tr>
<td></td>
<td>Lecturing</td>
<td>16.627</td>
</tr>
<tr>
<td>Avoidant</td>
<td>Programmed instruction</td>
<td>25.003</td>
</tr>
<tr>
<td></td>
<td>Lecturing</td>
<td>17.597</td>
</tr>
</tbody>
</table>
Discussion and conclusions

Considering the findings of the first hypothesis, teaching coping strategies significantly affect stress coping skills in female nurses. The results are consistent with the findings of studies conducted by Fathi (2004), Nazari et al. (2006), Mohsenpoor and Jafari G. (2011), Tavangar et al. (2012), and Pishgouyi et al. (2012).

Fathi (2004) found that although there are many factors causing stress in nurses, most of them are modifiable. Also, these results show that teaching the methods of coping with stress to nursing students and nurses as well as holding meetings and having formal and informal conversations with staff are effective in reduction of their stress. The results of Nazary et al. (2006) indicate that it is necessary to moderate the stressor situations in clinical educational environments and teach the nursing students the methods of coping with stress to facilitate their learning and achieve learning goals in this course. The findings of Mohsenpoor and Jafari G. (2011) showed that teaching the coping strategies to nursing managers is essential and a key issue that can improve the quality of nursing cares.

Tavangar et al. (2012) found that nurses individually do efforts to reduce the conflict between work and family; although the efforts lead to the reduction of the conflict in some cases, they are mostly ineffective due to discontinuous and inadequate learning regarding the management of conflicts and dealing with them. Hence, it is recommended that nurses scientifically learn methods of facing and coping with conflicts in addition to becoming familiar with the various forms of work-family conflicts to minimize the occurrence of negative consequences of the conflicts. In explaining these results, it can be said that individuals’ thinking and interpretation of environmental events plays an essential role in their selection of coping styles. The followers of cognitive approaches assume human as an autonomous individual who uses his assessment about the consequences to select from the specific outcomes being in his path. The evaluation of coping strategies affects the stressors to which individuals are exposed, the threats and challenges that are associated with these stressors, and the way of long- and short-term compromise. In fact, the evaluation of coping strategies provides a framework which helps individuals to give shape to consequences of stressors in their life instead of just being influenced by them (Moos and Schaefer, 1993).

In explaining the results, it can be said that conceptual patterns and processing information influence individuals’ learning and adaptation and give shape to it. Using different educational methods to describe occupational problems and the ways of coping with them helps nurses in selecting appropriate coping strategies. A major part of occupational problems of nurses in facing with work problems is related to their low knowledge about the proper techniques to reduce problems and deal with psychological stress of their job. When individuals participate in retraining courses, in addition to acquiring effective training in the field of coping with stress, they benefit the experiences of their colleagues in this regard.

According to the second hypothesis of this research, the lecturing method has higher effect on the problem-focused coping skill compared to the programmed instruction method (P<0.05), but the programmed instruction method has higher effect on the emotion-focused skill in comparison to the lecturing method. These findings are consistent with the results of studies conducted by Pejmankhah et al. (2012), Pishgouyi et al. (2012), Mokhtari N. et al. (2012), Fu-Jin Shih et al. (1999), Geranvald et al. (2003), and Lewis et al. (2012).

Pejmankhah et al. (2012) concluded that learning through workshops and pamphlets had positive effects on the awareness of medical team about bioterrorism; however, the average of awareness in the workshop group was higher than the pamphlet group. Pishgouyi et al. (2012) in a study as “comparing the impact of three methods including lecturing, problem solving, and self-learning with computer on drug calculation skills of nursing students at intensive care course” found that
the three methods affected the students’ learning, but the effect of self-learning with computer was lower than the other two methods. The reason may be the lack of appropriate interaction between the student and the instructor and not allocating sufficient time for learning by the student. In a study conducted by Mokhtari et al. (2012), the comparison between mean scores of pre-learning and post-learning tests showed the effectiveness of lecturing method. Since the lecturing method is an inexpensive, effective and attractive educational method, it can be widely used in education. On the other hand, this method makes it possible to increase the readiness of nurses in the shortest time and train them how to face with nuclear emergencies. The results of study conducted by Fu-Jin Shih et al. (1999) showed that 92% of people believed in lecture as a helpful way in spiritual care for patients. According to these findings, lecturing is helpful in three sections as: 1- helping to clarify abstract concepts of critically ill patients, 2- helping to learn how to provide spiritual care to patients in the intensive care unit (ICU), and 3- helping nurses to expose their personal beliefs and values about life goals, nursing, and spiritual needs. The results of a study conducted by Geranvald et al. (2003) showed that applying the programmed method causes users to move forward step by step for testing and building their knowledge of radiology and obtain the necessary information selectively and sequentially. This method is economically affordable and fits the needs of the target group. The results of another study conducted by Lewis et al. (2012) showed that using E-learning and providing simple and clear concepts at the level of average group leads to the success of learners. These results are not highly consistent with the findings of Shahsavari E. et al. (2004), Masoumi et al. (2012), Sadeqnejad et al. (2012), Farshi et al. (2012), Jones (1990), and Lankester et al. (2012).

Shahsavari E. et al. (2004) found that there is a significant difference between pre-test and post-test scores of experimental and control groups. The students who were in programmed instruction group received higher scores compared to the control group. The mean time required by self-learning group to study was 35.6 minutes less than the lecturing group and 85.4% of students were satisfied with the programmed instruction method. Masoumi et al. (2012) found that concept mapping method like lecturing method can improve learning and retention of nursing students, but the effect of concept mapping techniques on enhancing learning and retention is higher than the lecturing method. The results obtained by Sadeqnejad et al. (2012) indicate that before teaching, there was statistically no significant difference between the mean scores of puzzle and lecture groups in the medical emergencies course, but after teaching, a significant difference was observed between the mean scores of puzzle and lecture groups. The students’ feedback about the teaching methods indicated their positive view regarding the impact of puzzle teaching method on the participation of students in class, interest and motivation about class discussions, effective communication with classmates, and deep learning.

Farshi et al. (2012) found although no significant difference was observed between lecture and E-learning groups in the post-test stage, the software method was more effective in the retention stage. Therefore, it is recommended to apply the multimedia software method during in-service training for nurses. Jones (1990) found that lecturing method is not a student-centered approach and does not attract students’ cooperation and compromise. Robinson et al. (2010) found that individual programmed instruction has greater impact on nurses’ performance compared to the method of justification meetings before and after surgery. Lancaster et al. (2012) studied the impact of lecturing and blended learning methods on MS nursing students learning. The results of this study showed that the blended method (a combination of traditional and technology-based learning) has greater impact on nurses’ performance in comparison to lecturing method. In explaining the inconsistency of findings with some previous studies, it can be said: Lazaruse and Folkman (1984) have specified two general types of stress coping strategies: the problem-focused and emotion-focused coping strategies. The problem-based strategy can be inside- or outside- oriented. The goal of outside-oriented strategies is to change the situation or
behavior of others while the inside-oriented strategies include efforts carried out to review one’s attitudes and needs and acquire new skills and responses. The main purpose of emotion-focused coping strategies is to control emotional discomfort and distress. Emotion-focused coping strategies include physical exercises, meditation, expressing feelings, and seeking social support. The problem-focused strategies are mostly used when individuals feel that they can do something about the problem or situation, but when they evaluate that the problem or difficulty is beyond their abilities, they are likely to apply the emotion-focused strategies (Lazaruse and Folkman, 1980; Vitaliano, DeWolfe, MauroRusso, and Katon, 1990).

The coping style selected by individuals depends on situations. Actually, the factors influencing the selection of coping styles are as evolution, efficacy, optimism, sense of integrity (including three components: comprehensibility, inhibition ability, and being targeted), and recognition. Each coping strategy has specific features. Individuals using the problem-focused strategies are seeking the social support; they are responsive, wisely solve the problem, and positively re-evaluate it, but on the contrary, the individuals using the emotion-focused strategies apply confrontation, temperance (self-control), escape, and avoidance.

In lecturing method, a type of transfer of learning and mental relationship is created between the teacher and students. In fact, teacher verbally presents the principles, facts, and concepts of lessons. However, it should be noted that the concept of “presentation” is much broader than mere “verbal expression”. Actually, “presentation” is a kind of verbal expression using images, maps, tables, and any educational materials and supplies (Seif, 2003). In lecturing method, teacher takes over the main activity of the classroom and teaches various subjects through different ways of presentation and display. Hence, the method is also called display or presentation method. Considering the circumstances of time and place, the lecturing method is very flexible. The lecturing situation may socially strengthen aesthetic taste, interest, and confidence and reduce feelings of being alone. Therefore, it can provide better identification of occupational problems and more consultation in this field as well as teach nurses the appropriate methods for coping with them.

There are many studies showing that the programmed instruction teaching is boring for learners, even it has been observed in some cases that learners were searching a way to get rid of the training. Also, in such a teaching method, learners mostly feel a lack of social and intergroup rewards regarding the teacher and their classmates, and despite the fact that some of them have successfully completed the programmed instructions, have not shown great ability in the exam of programs. This indicates that the programmed instruction method is not so successful despite what is claimed by its proponents (Erfani, 2012).

Considering what has been discussed, nurses who individually learn coping strategies using the programmed instruction are deprived of their colleagues’ experiences and achieving a common sense of group; also, their coping styles are mostly emotion focused and avoidant rather than problem-focused.

Among the limitations of this study, it can be pointed to nurses' participation and their continued presence in the training sessions. However, the problem was solved and the design was well performed through constant communication with the nurses and explaining them the importance of these training methods in their job satisfaction. Finally, it is suggested to use appropriate methods such as lecturing to teach stress coping strategies to nurses in retraining courses.

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