

Investigating the Coping Relationship of Problem-Oriented and Excitement-Oriented and Cognitive Flexibility with Mental Health

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Abstract

The main objective of this study was to investigate the relationship of coping strategies and mental health with mediation of cognitive flexibility. This study was seeking to find a structural model to investigate which one of coping strategies as predictor variables has relation with mental health as dependent variable with the mediation of cognitive flexibility. For this purpose, a sample of 262 boys and girls students of Got Talent schools of Abadan and Khorramshahr were randomly selected. This study was descriptive - correlational. The results of the correlation matrix among data showed a positive and direct relationship between problem-oriented coping strategy and mental health ($r=0.38$). The correlation between excitement-oriented coping strategy and mental health was negative and significant ($r=-0.29$) and a significant and positive correlation existed between the cognitive flexibility and mental health ($r=0.39$).

Keywords: mental health, coping strategies, cognitive flexibility

Introduction

Mental health, in form of psycho-social phenomenon, requires the correct understanding and interpretation of the relevant issues and it should be considered within the framework of the basic underlying and modulator factors. Mental disorders, like any other behavior is resulted from the biological, environmental, and social components and we rarely can consider one reason for any behavior and each of mental disorders (Gerdi, Minakari, Heydari, 2004).

Regardless of the views and different definitions of mental health, it is recognized that there are several factors which can directly or indirectly, positively or negatively affect it (Babapour and Rasoulzadeh Tabatabaei, Azhrei, Fathi Ashtiani, 2003). Life always changes and we pass different stages through life. Developmental changes, academic issues and problems, the complexity of interpersonal and social relations, employment, matching the demands of career and family, being father or mother, dealing with inevitable losses and separations, and political, economic, cultural and scientific changes are issues that we encounter them in our life. Any change in life, whether pleasant or unpleasant, requires a kind of readjustment because stress is not inherently positive or negative but may have positive or negative effects and when it is deemed healthy which facilitates awareness and helps the personal growth and development or helps person to meet his needs and when it is deemed undesirable and unhealthy that can lead to the helplessness feeling and predisposes person to the disease (Sadeghian, Heydariyan Pour, 2009).

Basically stress is the body's response to any demand or perceived threat or change. Stressful event is a situation or event that stimulates this response (Sadeghian, Heydariyan Pour, 2009) and since stress is the integral part of life from birth to death therefore, it is a variable that influences health, but what is certain is that some people when deal with stress not only keep their mental health but also these conditions provide the basis for their growth and development (Maddi & Khoshaba, 1994; Antonovsky, 1996).

Despite all the problems related to stress and possible dangerous outcomes, it can be said that coping ways with stressful factors are more important than the stressors in life (Shamloo, 2007). Considering that the excitements and physiological excitations caused by stressful situations are very distressing and disturbing. This uncomfortable circumstance raises person to seek a way to reduce it. A process through which one tries to measure the mental pressures is called coping (Sabri Nazarzadeh, 2010).

Ways to deal with life changes and tensions resulting from them in different people and based on different situations are different. As a result, in one of the field of medicine called preventive medicine, a lot of researches are done on how to prevent and eliminate stress on what psychologists called being resistant or coping behavior. These studies show that some groups of society that live healthy with long lives can benefit from coping strategies well (Shamloo, 2007). Coping strategies are a series of cognitive and behavioral attempts which is used to interpret and modify a stressful conditions and reduce discomfort caused by it. Two main coping strategies include excitement-oriented coping strategies which refer to efforts to regulate emotional consequences of stressful event and sentimental and emotional balance which is kept through the control of emotions resulting from stressful situations, and problem- oriented coping strategies which include individual constructive measures in relation to stressful situations and try to remove or change the source of stress (Sabri Nazarzadeh, 2010).

On the other hand, Young (2010) argues that mental health is the ability to fend off unpleasant situations and adapt to environmental changes and coping with stress and discomfort. In fact, about the relationship between mental health and coping strategies it can be said that mental health is regarded in a two-way interaction by the election results and the use of effective and suitable coping strategies to the change and tension and on the other hand, it oneself provides the background for healthy psychological space that in its light the correct understanding and evaluation of stressful situation to select coping strategy is possible (Ghazanfari and Moghadampour, 2008), so that in psychology and psychiatry, cognition has a special place in the etiology and treatment of emotional disorders (Gerdi, Minakari, Heidari, 2004).

Scientists know thought as the fundamental pillar and converter of available behavior of human. Beck's theory about emotional disorders suggests that the first component in these disorders is the presence of automatic negative thoughts and according to Beck we have vulnerabilities and our reactions in dealing with life's problems, in many cases, is disproportionate (Gerdi, Minakari, Heidari, 2004).

Actually, despite all the problems associated with stress and its dangerous consequences, the ways of coping with stressors are more important than the stressors factors existing in life (Shamloo, 2007) and cognitive psychologists believe that disturbed cognitive processes lead to mental disorders and the relevant disorder can be treated by changing these cognitions (Gerdi, Minakari, Heidari, 2004). But in the meantime, as it is found from previous paragraph, flexibility can be an effective element in this respect. In this regard, researchers found that people who have flexible thinking ability can use alternative explanation in stressful situations and positively rebuild their conceptual framework and accept challenging situations or stressful events and they have more tolerance in relation to the inflexible people (Soltani, Share, Bahrainiyan, Farmani, 2013).

On the other hand, special schools for intelligent and pre-eminent students have certain circumstances to accept the students and these students have different educational environment compared to the normal school students. Such factors may cause differences between mental and cognitive health characteristics of students (Haghshenas, Chamani, Firouz Abadi, 2006). Therefore, the current study is done to investigate the factors related to health and stress in the intelligent.

Statement of problem

Although Rutter believes that the coping mechanism and measures in childhood and adolescence, by avoiding the risk, reducing the negative reactions, self-esteem and self-efficacy and providing new opportunities may mitigate the effects of damage (Nielsen and Hansen, 2007), researches have shown that lack of health and stress problems in adolescence have had more frequently which are derived from the perception of stressful situations and coping sources (ibid).

According to the theory of Lazarus, coping is composed of cognitive and behavioral efforts which manages the special external or internal demands that have been assessed more than one's personal resources. These cognitive and behavioral efforts as evaluative performance are always changing and re-evaluation constantly change the relationship between the environment and person; some of the changes point to the substitution of reason of distress (problem-focused) and some refer to the adjustment of distress (excitement -focused) which are associated with changes of person due to the feedback of results (Sabri Nazarzadeh, 2010). This definition points out to two processes of the cognitive evaluation and coping as central mediators in the interaction between the person and environment (Crown, 2002).

Ellis also believes that health refers to beliefs such as flexibility, consistent with fact and logic that can help a person achieve his goals (Rezaei & Khezri Moghaddam, 2010), so that cognitive flexibility can adapt the thought and behavior of person in response to changes in environmental conditions (Dickstein, Nelson, McClure, Grimley, Knapf, Brotman, Rich, Pine, & Leibenluft, 2006).

Research objectives

The main objective of the study was to investigate the relationship between coping strategies and mental health by mediation of cognitive flexibility. The study tried to find that in the structural model which one of coping strategies as predictor variables is associated with mental health as dependent variable by mediation of cognitive flexibility. The ultimate goal of this study was to identify features to provide mental health by training them.

Research Hypotheses

H1. There is a direct relationship between problem-oriented coping strategies and mental health.

H2. There is a direct relationship between excitement-oriented coping strategies and mental health.

H3. Cognitive flexibility has a direct relationship with mental health.

Mental health

Initial attempts to define mental health focused on the ability of people to join and combine with external factors (Elder et al., 2005). The dictionnaire of psychology of Larousse also defined mental health as the mental capacity for coordinating, pleasant and efficient working, being flexible in difficult situations and recovering its balance as well as being capable (Ganji, 2008).

On the other hand, stress that is one of the health intervention variables, can be defined as any process or event that requires too much compliance of organism in response to some stressors (Cohen et al., 1995, cited in Thome and Espelag, 2004). The concept of hyper-compliance indicates that stress is not only the ordinary and automatic adjustment that occurs daily but also a process that occurs in response to events or situations where people need to find and use other methods of adaption. Therefore, stressors can vary in type, severity and duration (acute vs. chronic) (Cohen, 1994, cited in Thome and Espelag, 2004). The diversity and difference in the type, severity and

length of the stress is not possible except by the flexibility of person which is derived from flexible mind and cognition.

The concept of coping with stress

According to Lazarus coping is a process that we use it every day and when we feel that we are under pressure or we want to manage difficult situations, we involve with coping. The coping process includes two components, evaluation and coping. Evaluation is the act of understanding stressors and analysis of ability of oneself to cope with it. Evaluation can take place in three different positions: when we experience stressor, when we expect it and when we have opportunity to dominate it. When we evaluate stressful situation, we should decide how to cope with stressful situation or respond to it and choose each of the cases of mastering, reducing or tolerating it. Finally, our coping style is determined according to our opinion as to whether we have the necessary resources to meet the stressor or not (Lazarus, 1966, cited in Berkel, 2009).

In other words, according to Lazarus and Folkman coping refers to the constant change of cognitive and behavioral efforts to manage external or internal demands that are evaluated more than person's resources. In this definition, there are three key features: First, it is process-oriented which means that a person thinks about what she or he does in stressful encounter and focuses on how these changes is detected as a confrontation. Second, coping depends on the background which means that coping is affected by person's assessment from his actual needs and resources to manage them and changes of the position and person form the coping efforts together. Third, there is not any previous hypotheses about the formation of a good or bad coping; coping is defined as individual efforts to manage the successful and unsuccessful demands (Folkman et al., 1986).

Coping functions

Roskies and Lazarus (1980, Cited in Morasha et al., 2008) showed that in professional literature of stress, the term of stress is used to the resources, strategies and coping styles. The purpose of coping resources is a wide range of physical, social and psychological resources, such as emotional support of family or colleagues. Coping strategies are techniques to deal with stressful situations such as keeping written records of problematic events or trying to avoid people and situations that are regarded negative and coping styles are the patterns and the tendency of individuals to use certain types of coping strategies.

Problem-oriented coping

In problem-oriented coping, people try to manage or amend stressful situation and this kind of coping is useful when people are confronted with a controllable stressor (Memrbashi Avaal, 2011) and whereby people exactly pay attention to the stressful event and try to do effective actions (Kalat, 2007). People who engage in problem-oriented pay attention to collecting the required resources (e.g., skills, tools and knowledge) to cope with stressor that includes a number of strategies such as data collection, conflict resolution, decision making and planning (Sabri Nazarzadeh, 2010).

In this strategy, the problem or issue should first be defined. Then, various solutions can be found and the costs and benefits of each of them can be measured compared to others. Finally, one should be selected among them and then it might be implemented. Problem-oriented strategies can also be turned towards the inside and instead of changing environment, the person should change something within oneself like changing the goals, finding other sources for satisfaction and learning new skills such as strategies directed towards the inside. The skill of person in applying these strategies depends on his experience and restraint capacity (Smith et al, 2007).

Excitement-oriented coping

In excitement- oriented coping, people try to control their emotional reaction to situation. For example, an anxious person may try to distract his senses by listening to music, walking calmly or seeking the support from others. Excitement- oriented coping is the best option to handle the reaction to stressors that people cannot control them (Sabri Nazarzadeh, 2010). According to this strategy, people try to undermine their emotional response. These guidelines do not try to solve the underlying problems but help individuals to control their reactions to them (Kalat, 2007). In fact, the excitement-oriented skill refers to the emotions that are related to the position, not the control of position. For example, people may use the defense mechanisms to defend their unpleasant feelings towards that situation such as denial or displacement (Curtis, 2006).

Excitement- oriented coping can involve a wide range of forms such as seeking social support, deny or escape, emotional evacuation and so on (Carver et al., 1989, cited in Berkel, 2009). The purpose of emotional evacuation refers to the behavioral expression of unpleasant excitement to reduce tension such as exercise, smoking, eating and drinking (Moos and Billings, 1982, 1984, cited in Leung et al., 2006). Seeking support also includes person talking with the other person to draw moral support, sympathy or understanding (Newton and Canon, 1985; Carver et al., 1989, cited in Leung et al., 2006) and denying or escaping also occurs when person separates himself from the stress by ignoring or escaping from it (ibid).

Background of Study

Sabri Nazarzadeh, Abdkhodaei and Tabibi (2012) by examining the causal relationship of the sense of coherence, psychological hardiness, stress coping strategies and mental health found that problem-oriented and excitement-oriented coping strategies mediate some of the possible effects of personality characteristics on mental health. The personality traits provide a basis for individual's perception so that, the individual when confronts with stressful situations by using the available information can interpret the existing conditions in mind in a way that can assess his abilities and the value of the deal with that situation. Such evaluations arouse emotions or activate cognitive processes and change the conditions in a way that the person experiences the least negative emotion and internal resources of person rather than moderating negative emotions should be lead to the use of the available opportunities.

Najati (2013) by conducting a research on the brain's executive functions by using the Wisconsin test and go / nogo for preservation and flexibility of an individual in response to environment did not found any relation between high-risk decision that is based on the excitement and types of attention (optional, transfer, etc.) that are based on the logic but fluctuation and emotional changes affect risky decisions because cognitive functions are divided into two parts of hot and cold cognition that the cold part is associated with the knowledge and cognitive duties and the hot part to the excitement and motivation.

According to the study of Memarbashi Aval (2011) who examined the relationship between social support and coping strategies and job function and mental health among nurses of physical and mental hospitals. He found a significant positive relationship between problem-oriented coping strategies and job function and but he did not found any significant negative relationship between excitement-oriented coping strategies and job function. Memarbashi Aval believes that problem-oriented coping strategies trace and solve the stressful sources but excitement-oriented coping strategies are good option for handling the response to stressors that cannot be controlled or avoided.

Zedan and Bitar (2013) by examining the stress and coping strategies concluded that using problem-solving techniques can lead stress in both personal and professional level efficiently and also using passive strategies such as avoidance, lack of dealing with stressor and highlighting

external factors can lead to the reduction of effective use of strategies to cope with stress and maintain the stressful situations. Also, using excitement-oriented strategies such as seeking emotional support, have the least efficiency to deal with stress.

Stone and Iguchi (2013) by conducting a study on stress and mental flexibility in autistic disorders found that poverty of cognitive flexibility is the main characteristic of autism people and this defect grow through intermediaries such as stress in these patients. They believe that since cognitive flexibility is affected in the short and long term. Therefore, stress by peripheral and central neuronal mechanisms can adjust the levels of arousal and stimulation for adapted responses. Stress by activating arousal hormones and other mechanisms facilitates cognitive functions which including the severity and inhibition of highlighted and important information. Hypothalamic-pituitary-adrenal cortex is the primary mediator system of stress responses and releases Glucocortisol that crosses the blood-brain barrier and leads to more activity in brain system.

Smith, Strachan, and Buchwald (2009) examined the relationship between coping styles with self-efficacy and stress and functional damage in patients with widespread pain (CWP) and chronic fatigue with the possibility of mediation role of psychiatric diagnosis. Results showed that the excitement-oriented coping strategy predicts the increasing damage relating to the pain performance and reversely affect the functional damage of aging and problem-oriented coping had no role in any of these models.

Methodology

This study was descriptive – correlational which means that data was collected without intervention in the current situation of participants and the purpose of it was functional.

Population

The study population was gifted students of middle and high schools in the city of Abadan and Khorramshahr in 2013. The total number of students were 614 (311 girls and 303 boys).

Sampling method

The sampling method of the study was simple random sampling. According to Morgan table the minimum sample size for this population was 242 people. For sampling, at first, the list of students was prepared from educational centers of Farzanegan and Shahid Beheshti and 350 subjects were selected randomly because of the possibility of the incompleteness of questionnaires. Then the questionnaires were distributed and after explaining the purpose of the study and mentioning that the information of questionnaire will be kept confidential, they were asked to complete the questionnaires of General Health (GHQ), coping strategies of Moos and Billings and cognitive flexibility of Dennis and Venderval. 280 questionnaires were fully completed by students that were used in the study. The number of questionnaires were excluded during statistical calculations and finally, 262 samples were used in the study.

Data collection tools

Mental health scale of Goldberg (1979): This 28-item questionnaire with four subscales investigates the physical harm, anxiety, depression and social dysfunction and it is prepared and designed for screening the non-psychotic psychological disorders in medical centers and other communities and each scale has 7 questions (Haddadi Kouhsar et al., 2007). Each question has four options and Likert method is used for scoring and scores 1 to 3 belong to options A to D respectively (Kafei and Mousavi, 2007). In the study of Ghazanfari (2008) reliability coefficient of the test is obtained 0.88 and in Cheng 's study (1995, cited in Kafei, 2007) the correlation between life events in students was reported 67% for physical symptoms scale, 71% for anxiety and 75% for depression that this correlation was significant.

Scale of stress coping strategies of Moos and Billings (1981): The questionnaire is a combination of questionnaires of Moos and Billings (2002) with 32 questions which including problem-oriented coping strategy and excitement-oriented coping strategy (Pazhekhzadeh, 2001). The reliability by Cronbach's alpha and validity for the first questionnaire are 0.88 and 0.78 respectively and for the second questionnaire are 0.89 and 0.80 respectively (Pazhekhzadeh, 2001).

Cognitive flexibility questionnaire of Dennis and Venderval (2010): This is a short self-reporting questionnaire with 20-question that is used to measure a sort of cognitive flexibility which is necessary for the success of individual for challenging and replacing inefficient thoughts with more efficient thoughts that is scored based on the Likert scale of 7 degrees and measures three aspects of cognitive flexibility including a. the desire to understand the difficult situations as controllable opportunities b. the ability to understand several alternative justification for life events and human behavior c. the ability to create several alternative solutions for difficult situations. Concurrent validity of the questionnaire with the Beck Depression (BDI-II) was equal to -0.39 and its convergent validity with the cognitive flexibility scale of Martin and Robin was 0.75. These researchers obtained the reliability by Cronbach's alpha method for the total scale, perception of controllability and perception of different options as 0.91, 0.91, and 0.84 respectively and by retest method obtained 0.81, 0.75 and 0.77 respectively (Dennis and Van der Wal, 2010).

Results

H1. There is a direct relationship between problem-oriented coping strategy and mental health.

H2. There is a direct relationship between excitement-oriented coping strategy and mental health.

H3. Cognitive flexibility has a direct relationship with mental health.

Table 1: Correlation coefficients for problem-oriented and excitement-oriented coping strategy and cognitive flexibility with mental health in students

Criterion variable	Predictor variables	Pearson correlation coefficient	Number	Significance level
Mental health	Problem oriented coping strategy	0.8	262	0.01
	Excitement-oriented coping strategy	-0.29	262	0.01
	cognitive flexibility	0.39	262	0.01

As shown in Table 1, there was a significant relationship between problem-oriented coping strategy and mental health at a significance level of 0.01.

Table 2: Fitness indicators of causal model of coping strategy and cognitive flexibility with mental health

Indicators	Value	Fitness criterion	Result
Chi square of significance level	$\chi^2 = 3.01$, $P = 0.27$	P more than 0.05	Has fitness (is desirable)
Degrees of freedom	2	-	-
The ratio of chi square on degree of freedom	1.50	2 and less	Has fitness (is desirable)
RMSEA	0.06	0.05 and less	Has fitness (is desirable)
CFI	0.97	0.9 and more	Has fitness (is desirable)
NFI	0.96	0.9 and more	Has fitness (is desirable)
GFI	0.98	0.9 and more	Has fitness (is desirable)
AGFI	0.97	0.9 and more	Has fitness (is desirable)

Therefore, the first hypothesis was confirmed. There was a significant relationship between excitement-oriented coping strategy and mental health at a significance level of 0.01. Thus, the second hypothesis was confirmed. Also, a significant relationship existed between cognitive flexibility and mental health at a significance level 0.01. Accordingly, the third hypothesis was confirmed.

According to Table 2, fitness indicators of causal model of coping strategy with mental health are approved with mediation of cognitive flexibility of the fitness of model. The fitness of proposed model was evaluated by fitness measures that were previously mentioned. The values of fitness indicators of proposed model are shown in Table 2. In order to test the proposed model, an examination of the relationship between coping strategies and mental health with mediation of cognitive flexibility, the path analysis method was used. The overall indicators of goodness of fit test in path analysis model indicate the fitness of proposed model.

Table 3: Critical ratios and standardized regression weight relevant to the routes between study variables

Route of statistical indicators	Path coefficient	t
Problem-oriented strategy and mental health	0.25	3.97
Excitement-oriented strategy and mental health	-0.22	-3.78
Cognitive flexibility and mental health	0.25	4.11

By looking at Table 3, the standardized regression weight between scores of problem-oriented coping strategy and mental health was $\beta = 0.25$ that due to the observed critical rate (CR=C.R.), the path between problem-oriented coping strategy and mental health was significant and the first hypothesis was confirmed.

The standardized regression weight between scores of excitement-oriented coping strategy and mental health was $\beta = -0.22$ that due to the observed critical rate (CR=-3.78), the path between excitement-oriented coping strategy and mental health was meaningful and the second hypothesis was confirmed. The standardized regression weight between scores of cognitive flexibility and mental health was $\beta = 0.25$ that due to the observed critical rate (CR=3.78), the path between cognitive flexibility and mental health was meaningful and the third hypothesis was verified.

Discussion

In investigating the relationship between coping strategies and cognitive flexibility and mental health in a sample of 242 students who had completed the relevant questionnaires, the data analysis results showed that in the first hypothesis: there is a direct relationship between the problem-oriented coping strategy and mental health. In the investigation of the first hypothesis given in Table 1, the obtained r is equal to 0.38 ($r = 0.38$) that there was a significant relationship in the 0.01 level which means that there is a significant and direct relationship between problem-oriented coping strategy and mental health.

In studying the second hypothesis, a direct relationship can be found between excitement-oriented coping strategy and mental health. According to Table 1, obtained r is equal to -0.29/0 ($r = -0.29$) that is, there is a negative and significant relationship at the level of 0.001.

These results are consistent with the findings of Kamaliye Iqli and Hassani (2013), Sabrizadeh, Abdkhodaei and Teybi (2012), Memarbashi Aval (2011), Mousavi Nasab and Taghavi (2007) and Ben-Zour (2002) and confirm their research findings. The model of Lazarus and Folkman should be pointed in explaining the obtained results that in coping process, person by problem-oriented coping strategy utilizes the cognitive skills to solve the problem namely, the solutions to deal with the problem are checked and actually, by finding the right solution to the

problem the psychological satisfaction and reduced stress are achieved for individuals (Lazarus and Folkman, 1984) that in the personal field, satisfaction and life quality enhancement can be the product of this coping process and the use of effective coping strategy reduces the stresses in people. Reducing stress level lead to the appropriate use of cognitive skills and increases mental relaxation in dealing with problems and consequently, provides more satisfaction for the individual. Finally, utilizing the problem-oriented coping strategy will increase the mental health (Pirline, 1978). In fact, the utilization of problem-oriented coping strategies help people to overcome many physical and psychological problems and personal conflicts and maintain their mental health. In fact, those who use problem-oriented strategy have more emotional self-awareness as well as greater ability to tolerate stress and control their impulses. In addition, by analyzing the situation they find the best solution in dealing with the issues and overcome the crisis and problems better and they are less susceptible to despair. Therefore, these people by applying appropriate coping strategies overcome the many personal conflicts, physical and psychological problems and have better cognitive and mental function (Kamali Igli and Hasani, 2013). Those who use problem-oriented strategy in high-pressure situations, during and after stressful situations are less depressed (Sabri Nazarzadeh, 2010). The passivity is the characteristics of people who use ineffective excitement-oriented coping strategy (Pirline, 1978) namely, the resignation and avoidance of stressful situation leads to the lack of effort to solve the problem and the problem still remains which consequently, leads to dissatisfaction. Therefore, the rate of mental health will decrease with increasing utilization of excitement-oriented coping strategy (Lazarus & Folkman, 1984). This coping strategy by ignoring the reality can prevent using a positive step to solve the problem (Mei Zhao and Yamaguchi, 2008). The use of excitement-oriented coping strategy leads to the inability in using potential capabilities and initiative and consequently, reduces confidence and increases dissatisfaction and ultimately, reduces the mental health (Memarbashi Aval, 2012).

Third hypothesis: there is a direct relationship between cognitive flexibility and mental health. According to Table 2, r is equal to 0.39 ($r=0.39$) which is meaningful in 0.001 level that is consistent with study results of Smith, Strachan and Buchwald (2009). Cognitive flexibility refers to the ability of human in changing cognitive processing strategies to deal with the new and unexpected conditions in environment (Canas, Quesada, Anatoli, Fajardo, 2003). This definition reflects three important features for cognitive flexibility. First, cognitive flexibility is a process that points to the learning and can be acquired through practice. Second, the concept includes the change and adaptation of cognitive processing strategies appropriate to the intended topic. Third, adapt to new environmental and unexpected changes (Payne, Bettman, and Johnson, 1993). Those who have high cognitive flexibility easily adapts to environmental demands and can struggle with difficult situations and create alternative ideas and thoughts and apply problem-solving skills (Gunduz, 2013). Thus, internal conflicts of individuals are solved and they understand their needs, problems and goals. Such people can control themselves well and are able to establish balance between himself and the around world or in other words, the mental health will increases (Al Volvo et al. 2006). Although, flexibility is the ability to adapt to new events (Payne et al., 1993), this adaptation does not always occur (Canas, Fajardo, Salemon, 2008). If the person fails to be flexible in situations that should reconsider his behavior to face with the created changes, cognitive inflexibility occurs (Noferesti, 2009). Such people suffer the internal conflict and are not able to coordinate their needs and goals with environmental requirements (Al Volvo et al., 2006). Researchers believe that the negative perception of stressful events can lead people to depression because such individuals know coping strategies ineffective and grow their negative emotions. It seems that their negative attitude towards the ineffectiveness of coping strategies, flexibility, and motivation unable them in selecting effective strategies (Zong et al., 2010).

Pedagogical recommendations

- According to the results obtained from research, problem-oriented coping strategy has direct and positive relationship with mental health. Training problem solving skills and problem-oriented strategies can have a positive impact on mental health and the life quality of adolescents.

- Cognitive flexibility directly and as a mediator for coping strategies affects mental health. Training how to improve cognitive flexibility, having a positive cognitive assessment, monitoring negative cognitive evaluations and controlling negative emotions to students increase the utilization of problem-oriented strategy and mental health.

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