*Review paper*

**Deterministic Thinking and Mental Health: A Review Article**

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**Abstract**

 One of the most important cognitive distortions is ‘deterministic thinking’. It brings about cognitive rigidity, may be the source of all kinds of distortions, plays a destructive role in family- and society-based interactions, and leads to psychological problems. The purpose of this study was to investigate the effect of deterministic thinking, which was introduced by Younesi and Mirafzal in 2013, on mental health. We identified relevant studies through searching the computerized databases PsycINFO, ProQuest, Scopus, Iranian Scientific Information Database (SID) and Google Scholar. Additional relevant studies were identified through exploring the reference sections of studies found during the initial search. We retrieved a total of 11 studies, 5 of them indicated a positive significant correlation between deterministic thinking and immature defense mechanisms, anxiety, risky behaviors, and depression, and the remaining 6 showed a negative significant correlation between deterministic thinking and mature defense mechanisms, occupational stress, hope, mental health, creativity, emotional creativity and marital satisfaction. Although deterministic thinking plays a destructive role in individual interactions in family and society leading to psychological problems, in some situations or careers such as nursing it leads to the reduction of psychological problems.

**Keywords:** Cognitive Theory (CT), deterministic thinking, mental health.

**INTRODUCTION**

 The major principle of Beck's Cognitive Theory is that the way individuals perceive and process reality will influence the way they feel and behave. Also, people’s feedbacks from themselves and the world play an important role in their vulnerability when encountering psychological complexities ([1](#_ENREF_1)). Cognitive Theory (CT) posits that there are thoughts at the fringe of awareness that occur spontaneously and rapidly, and are an immediate interpretation of any given situation ([2](#_ENREF_2)). These are called *automatic thoughts* and are distinguished from the ordinary flow of thoughts observed in reflective thinking or free association. Most people are not immediately aware of the presence of automatic thoughts, unless they are trained at monitoring and identifying them. In the roots of distorted automatic interpretations are deeper dysfunctional thoughts called *schemas* ([3](#_ENREF_3)). The concept of schemas was initially proposed by Piaget & Warden in 1926 as the underlying structure for organizing perceptions of the world. The role of schemas is to process everyday stimulus situations in order to provide meaning and, depending on the content, engage other systems such as motivational, affective, and physiological systems. Negatively biased schemas, or those schemas that are theorized to have a causal role in the development of mental disorders such as depression and anxiety, develop through a complex biasing process involving the interaction of genetic factors, selective allocation of attentional resources, and storage in memory with adverse environmental life events ([4](#_ENREF_4)). Symptoms of psychopathology (*emotions*, *cognitions*, and *behaviors*) result when pathological *schemas* are activated by *stressful* *events* ([5](#_ENREF_5)). Information processing depends upon two interacting subsystems, the automatic system and the reflective system. Stimulus events are initially processed by protoschemas, which provide an initial evaluation of stimuli through the automatic system. The reflective system, aided by attentional processes, refines or corrects the meaning or the product of the protoschemas ([4](#_ENREF_4)). Thus, the therapeutic goal of CT, since it’s very origins, has been to reframe and correct cognitive distortions, and collaboratively endeavor pragmatic solutions to engender behavioral change and ameliorate emotional disorders ([6](#_ENREF_6)).

 The patterns of faulty or negative thinking that characterize emotional disturbances have been referred to as ‘cognitive distortions’ ([7](#_ENREF_7)). The term ‘cognitive distortion’ was first referred to within the cognitive therapy to describe processing errors or fallacious reasoning with a major role on the development and maintenance of specific psychological disorders, such as depression ([8](#_ENREF_8)). Cognitive distortion refers to unusual beliefs about self, such as self-blame, self-criticism, helplessness and hopelessness ([9](#_ENREF_9)). Cognitive distortions and cognitive errors are often interchangeably used in the cognitive therapy literature for referring to false beliefs and thoughts, including negative appraisals and interpretations of self, others, experiences or the future leading to externalizing or internalizing problems ([10](#_ENREF_10), [11](#_ENREF_11)). The role of cognitive distortions in mood disorders is well-documented in the related literature ([12-17](#_ENREF_12)). These studies provide supporting evidence for cognitive distortions as a vulnerability factor in mood disorders, poor emotional self-regulation, and other psychological problems.

 Various types of cognitive errors have been delineated, including catastrophizing (i.e., expecting the worst possible outcome of an event or situation, such as ‘‘if it rains there will be a flood’’), overgeneralizing (i.e., believing that a single negative outcome is representative of or will occur in all similar future events, such as ‘‘one bad day at school means school will always be awful’’), personalizing (i.e., attributing control over the outcome of negative events to internal causes, such as ‘‘my team lost the game because of me’’), selective abstraction (i.e., focusing on only the negative aspects of an event, such as ‘‘I ruined the whole recital because of that one mistake’’), all-or-nothing thinking (i.e., viewing situation as having only two possible outcomes, such as “no one wants to go out with me”), fortune-telling (i.e., predicting the future with limited evidence, such as ‘‘I’ll never pass that test”), mind-reading (i.e., predicting or believing you know what other people think), magnification/ minimization (i.e., magnifying negative information; minimizing positive information), misattribution (i.e., making errors in the attribution of cause of various events), emotional reasoning (i.e., arguing that because something feels bad, it must be bad), labeling (i.e., putting a general label on someone or something, rather than describing the behaviors or aspects of the thing), disqualifying the positive (i.e., not attending to, or giving due weight to positive information. Similar to a negative “tunnel vision”), and deterministic thinking (i.e., ignoring any possibility or probability in making a conclusion about events, such as “having a beautiful face means having a successful marriage”) ([18](#_ENREF_18)).

 One of the major cognitive distortions is *deterministic thinking* ([19](#_ENREF_19)). This type of thinking ignores any possibility or probability in coming to a conclusion about the events and it is able to create many cognitive distortions ([20](#_ENREF_20)). The interpretation of events is affected by this distortion, so the events and their consequences may be thought as: 2×2= 4. Equality may be considered in connection with mathematical science just in mind level not in reality. So it is impossible to find two things that are similar or equal absolutely. Some people use the equality in interpreting events, for example the thoughts of a student who cannot pass a university entrance exam, may be directed to the conclusion that passing the entrance exam is equal to happiness and failing equal to misery ([21](#_ENREF_21)). In religious perspective, which is sometimes essential to consider in cognitive therapy of some people ([22](#_ENREF_22)), this distortion is seen as a destructive factor for ruining the balance of fear and hope, because any exception for consequences of bad or good events should be ruled out by deterministic thinking ([18](#_ENREF_18), [23](#_ENREF_23)). Therefore, being too disappointed or too hopeful about events, either positive or negative, is not accepted in this perspective as prediction of events may not be possible. Even prediction of “God’s will” is not promising in Shiite perspective. This view is called “bada” in Shiite ideology which means everything can be initiated from the beginning. There is a phrase in Islamic culture which is often used by Muslims around the world when they are faced with different events and situations: “Insha Allah” which means “If God Wants”. The phrase is in opposition to deterministic thinking, because any consequence of events to come is based on the will of God, and he is the only one who knows and controls everything ([24](#_ENREF_24)). This means that any consequence of events is due to the will of God. Studies show that deterministic thinking in close relation with other psychological variables, such as anxiety ([25](#_ENREF_25)), mental health among substance abusers ([26](#_ENREF_26)), communication skills ([27](#_ENREF_27)), life expectancy ([28](#_ENREF_28)), obsession ([29](#_ENREF_29)), depression ([24](#_ENREF_24)), and forgiveness ([30](#_ENREF_30)).

**METHOD**

 A systematic literature search was undertaken which included ProQuest, Scopus, Iranian Scientific Information Databases (SID), and Google Scholar. In addition, the reference lists of the articles included were scrutinized to identify relevant articles not found in the data bases. In each of the databases, searches were conducted in several categories (clinical studies, clinical trials, systematic reviews, etc.). Also the researchers used keywords for deterministic thinking. These keywords were combined with keywords for mental health, such as “mental health, cognitive therapy, cognitive distortions, deterministic thinking”. The inclusion criteria were: a) studies written in Persian and English; b) studies published in 2000-2015; c) studies containing new data; d) studies on individuals with mental health problems; and e) studies investigated individuals of both sexes.

**Table 1**

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| Results | Methods | Participants | Searcher |
| The results showed that there is a positive and significant relationship between deterministic thinking and the lack of mental health which had the closest relation to deterministic thinking among the factors of mental health, such as anxiety and depression. | Deterministic Thinking questionnaire (DTQ) (Younesi & Mirafzal, 2007) and General Health Questionnaire (GHQ) (Goldberg and Hillier, 1979). | 110 individuals who were addicted to drugs (stimulants and Methamphetamine). | Younesi J & colleagues(2015)  |
| Significant negative correlation between absolute deterministic thinking and prediction of future, deterministic thinking with mature defense mechanisms and significant positive correlation with immature defense mechanisms were found. There are not relationship between other components of deterministic thinking and mature, neurotic and immature defense mechanisms | DTQ and Defense Style Questionnaire (Andrews, 1993). | 124 students from technical, economy and management collages at the University of Tehran. | Younesi J & colleagues(2014)  |
| Significant correlation between DTQ and GHQ in anxiety subscales and also between DTQ and ZAS. | DTQ, GHQ and Zung Self-Rating Anxiety Scale (SAS) (Zung, 1971). | 85 female and 73 male students from Kerman Bahonar University. | Younesi J & colleagues(2014)  |
| Significant positive correlation between deterministic thinking and risky behavior. Deterministic view in interaction with others (as one of DT factors) has the highest correlation with risky behavior. | DTQ and Risky Behaviors questionnaires (National College Health Risk Behavior Survey, 2007). | 200 male and female students (70 students from Technical College, 70 students from the Faculty of Science and 60 students were from Management College) | Golzarpour M & colleagues(2014) |
| Results showed a negative significant relationship between total score and subscales of deterministic thinking and score of Steinmetz Occupational Stress Inventory. The higher deterministic thinking level in nurses, the lesser stress they feel. | DTQ and Occupational Stress Inventory (OSI) (steinmetz,1977) | 100 male and female nursing personnel working in Imam Khomeimi Hospital. | Ghasemian D & colleagues(2013) |
| Challenging Deterministic Thinking lead to the reduction of depression and anxiety and the increase of hope in cancer patients. | Interview transcriptions (ASL) and researcher observations | The patient was a 53 year old engineer who suffered from prostate cancer. | Younesi J & colleagues(2012) |
| Negative significant relationship between creativity and emotional creativity and Deterministic Thinking. | DTQ, Emotional Creativity Inventory (Averill, 1999), Creativity Questionnaire ( Abedi, 1984). | 170 students of the University of Tehran.  | Koohpayeiha M & colleagues(2012) |
| The results indicated that cognitive behavior training decreased deterministic thinking among mothers of autistic children. |  | 24 mothers of autistic children who were referred toCounseling centers of Tehran. | Esbati Mehrnoush (2011) |
| The results indicated that the couple therapy based on attachment has impact on raising marital satisfaction and reducing Deterministic Thinking. | The short Persian version of Enrich Marital Satisfaction Inventory (MSI) (Asgari and Bahmani, 2006) and DTQ. | Twenty couples who were not satisfied with their marital relationships and had family problems. control group = 10;experimental group =10 | Honarian M & colleagues(2010) |
| The results showed that training how to cope with Deterministic Thinking was effective in improving the marital relationships. | Dyadic Adjustment Scale (Spanier, 1976). | 51 women working in an engineering company processing structures. control group (n =30); experimental group (n =21) | Navbi nezhad Sh and malek E (2010) |
| The results revealed a negative correlation between deterministic thinking and marital satisfaction. | DTQ and the short Persian version of Marital Satisfaction Inventory. | 300 couples in Tehran who averaged 36 years of age and had been married for 11 years. | Younesi j, & Fazel Bahrami(2009) |

 Younesi and colleagues ([26](#_ENREF_26)) conducted a research aimed to investigate the relation between deterministic thinking and mental health among drug abusers. It was found that definitiveness in predicting tragic events and then in future anticipation (the two factors of deterministic thinking) are the most vigorous variables that predict lack of mental health.It seems that drug abusers suffering deterministic thinking, when they confront with difficult situations, would be more influenced by depression and anxiety. This way of thinking may play a major role by impelling or restraining drug addiction.

 Younesi and his colleagues ([21](#_ENREF_21)) recruited Younesi & Mirafzal Deterministic Thinking Questionnaire (DTQ) and Defense Style Questionnaire (DSQ) to investigate the relationship between deterministic thinking and defense mechanisms among 144 students of management and economics colleges at the University of Tehran, Iran The results revealed a negative significant correlation between DT components and mature defense style. There was also a positive significant correlation between DT components and immature defense style. Furthermore, the results showed no significant difference between male and female students in the scales of ‘Total Determinism’ and ‘Determinism in Predicting the Future’. Accordingly, multiplicity in the use of defense mechanisms, especially neurotic and immature mechanisms, is accompanied with mental abnormalities and can be pathological. Our mental health and pathological conditions are related to our perception and interpretation of the reality. Cognitive distortions, especially deterministic thinking (DT), have the highest impact in this area; therefore, such a relationship is expected between deterministic thinking and defense mechanisms.

 Younesi and his colleagues([25](#_ENREF_25)) investigated the relationship between deterministic thinking and general health with a focus on cultural matters. They used DTQ, General Health Questionnaire (GHQ) and Zung Self-Rating Anxiety Scale (SAS). Participants were 158 undergraduate students from Shahid Bahonar University of Kerman, Iran. The results indicated that individuals who tend to see things and events in certain conditions without any degree of probability, always experience more anxiety because they sabotage the balance between hope and fear. Based on Islamic perspective, this is rooted in the nature of the world, in which all events cannot be exactly predicted without any error, because the creation is not finished yet ([31](#_ENREF_31)). So it is not possible to predict exactly the end or outcome of unfinished jobs. In other words, individuals who seek either more hope than fear with optimism in predication or seek more fear than hope with pessimism in foreseeing events, experience anxiety and depression.

 Golzarpour and his colleagues ([32](#_ENREF_32)) studiedthe effect of deterministic thinking on engagement in risky behaviors among students. The target population was undergraduate and postgraduate students of Shahid Beheshti University in Tehran, Iran. The subjects participated voluntarily. They were asked to complete DTQ and a Risk Behavior Survey. It was determined that deterministic thinking was related with high levels of risky behaviors, so that high levels of deterministic thinking among university students would generate greater engagement in risky behaviors. Furthermore, among various DT components, ‘Determinism in Interaction with Others’ has the greatest impact on the engagement in risky behaviors. There are two majorexplanations supporting the relationship between deterministic thinking and risky behaviors: (1) Mental health and pathological conditions are related to perception and interpretation of reality; cognitive distortions, especially deterministic thinking, have the highest impact on this area; (2) Studies examining the developmental unfolding of the relationship between psychological problems (depressive or anxious symptoms, poor communicational skills, etc.) and risky behaviors suggests a gradual progression from sub-threshold depressive/anxious symptoms and infrequent/mild forms of misbehaviors to clinically significant depressive/anxious symptoms and more chronic and severe risky behaviors.

 Ghasemian and colleagues ([33](#_ENREF_33)) conducted a research with the aim of investigating the relationship between deterministic thinking and occupational stress among nurses. According to the results, the feedback of individuals from themselves or their surrounding environment plays an important role in their vulnerability of psychological stress. Cognitive perspectives believe that the closer the perception of individuals from their surrounding environment and its intellectual reflect, the closer the relationship between people and their environment and more logical respond to events would be. By changing cognitive attributions, individuals can have better feeling toward others; quality of these relationships depends on their cognitive triangles (overall-permanent-internal) ([22](#_ENREF_22)). Considering high levels of occupational stress among nursing personnel, it is necessary to prevent long-term effects of occupational stress on nurses. Clinical studies indicate that decreased deterministic thinking along with cognitive techniques is followed by increased satisfaction, mental health and decreased conflicts among people.

 Younesi and his colleagues ([20](#_ENREF_20)) proposed a new approach to confront the depression and anxiety of cancer patients. The patient was a 53-year-old engineer who suffered from prostate cancer. The approach consists of a new method in challenging negative automatic thoughts and cognitive distortions of cancer patients which lead to a relief of their symptoms. Results showed that Challenging Deterministic Thinking can create hope in cancer patients. The research showed a negative correlation between hope in life and deterministic thinking. Therefore, it can be said that the more deterministic you think, the more hopeless you are. Moreover, challenging DT can lead to an anxiety reduction in cancer patients. For the first time, in this study, it was proposed that how this method can be used in the treatment of psychological disorders in cancer patients. It simply means the more determinism in thought, the more anxiety in life. People who tend to see things and events in certain conditions without any degree of probability, always experience more anxiety because they sabotage the balance between hope and fear. The prediction of negative events can be merged in “fear networks” which serves to activate fear. This is achieved through cognitive information encoded into memory in the form of “fear networks” and the development, maintenance, and activation of these “fear networks” is attained through biased attention, encoding, and retrieval of threat-related information. Other cognitive etiological models have suggested that biased processing of information leads to the development and maintenance of psychological disorders. Therefore, it is not possible to predict the end of unfinished jobs. In other words, individuals who seek more hope than fear with optimism in prediction or seek more fear than hope with pessimism in foreseeing the events experience both anxiety and depression.

 Koohpayeiha and his colleagues ([34](#_ENREF_34)) studied the relationship between deterministic thinking and creativity and emotional creativity among 170 students in Universities of Tehran, Iran. The results showed a negative significant relationship between creativity and emotional creativity, and DT. Deterministic Thinking (DT) consists of five factors: ‘General Determinism’; ‘Determinism in Interaction with Others’, ‘Philosophical Determinism’; ‘Determinism in Future Prediction’; and ‘Determinism in Thinking of Negative Events’. However, Significant correlation were not reported the between two components of deterministic thinking (DT in interaction others and DT in forecasting the future) and creativity. According to scholars the reason why the correlation between these two variables is not significant; can be that person may in addition negatively predict the future, Also in predicting the future to Positively is affected deterministic thinking.

 Esbati ([35](#_ENREF_35)) used DTQ toinvestigate the effectiveness of cognitive behavior training on the reduction of deterministic thinking in mothers of children with autism spectrum disorders. Participants were 24 mothers of autistic children who were referred to counseling centers of Tehran and their children’s disorder had been diagnosed at least by a psychiatrist and a counselor. The results indicated that cognitive behavior training decreased deterministic thinking among mothers of autistic children, it decreased four sub-scales of deterministic thinking: interaction with others, absolute thinking, prediction of future, and thinking of negative events. Accordingly, cognitive revisions caused reduction of annoyance and anger, increased attention to positive aspects of child behaviors, decreased cognitive distortions such as mind reading, foretelling, negative labeling, and deterministic thinking. To decrease deterministic thinking, Reality Testing technique was educated and it helped mothers to percept their lives’ realities, and thus absoluteness and equalities in their mind were decreased. Also the cognitive restructuring module was helpful in 6 changing negative expectations and attributions related to child behavior that may influence parenting as a treatment response.

 Honarian and his colleagues ([36](#_ENREF_36)) studied the effectiveness of couple therapy based on attachment in relation to decreasing deterministic thinking and increasing marital satisfaction among couples. The research population consisted of couples who were not satisfied with their marital relationships and had family problems. Researchers used a short Persian version of Enrich Marital Satisfaction Scale and DTQ. The results indicated that couple therapy based on attachmenthad strong positive effect on the decrease of deterministic thinking. Another important point discovered was that couple therapy based on attachment as well as having a general efficiency, due to some reasons, is a convenient method particularly in resolving marital problems and increasing marital satisfaction among Iranian couples. Most couples’ disagreements and therefore marital dissatisfaction are caused by couples’ stubbornness, insistence on personal view and inattention to the opinions of spouse. Certainly, these factors could be strongly under the influence of a high rate of deterministic thinking. Hence, it could be noted that there exists a relationship between cognitive distortions, including deterministic thinking, and marital satisfaction. Thus, the more couple therapy based on attachment increased marital satisfaction, it had more effect on the decrease of deterministic thinking.

 Navabi-Nejad and Malek ([37](#_ENREF_37))investigatedthe effectiveness of coping with Deterministic Thinking on the improvement of marital relationship. The population consisted of women working in a construction engineering company. Researchers applied DTQ and Dyadic Adjustment Scale (DAS). The intervention was provided over the course of eight weeks (a session each week and each session lasted 1.5 hours). The results showed that training methods of coping with Deterministic Thinking was effective in improving the marital relationship, increased duo marital agreement and the exchanging aspect of marital relations. It was concluded that the relatively free exchange of information among spouses helped reduce uncertainty and prevent disorder or irregularities. This issue led to the production of a meaning and concept in life.

 Younesi and Bahrami ([38](#_ENREF_38)) conducted a study aimed to predict marital satisfaction through deterministic thinking. The populations were 300 couples in Tehran who were selected by multistage sampling method, averaged 36 years of age and married for 11 years. Research instruments in this study included: DTQ and a short Persian version of Marital Satisfaction Inventory (MSI). The results revealed a negative correlation between deterministic thinking and marital satisfaction. The correlation coefficient between aspects of deterministic thinking and marital satisfaction scores indicated that a there were negative correlation between marital satisfaction with the sub-scales of Deterministic Thinking Questionnaire (interaction with others, absolute thinking, prediction of future, and thinking of negative events). There was no correlation between the factors of General Deterministic Thinking with marital satisfaction. The results can be useful implications for couple therapy based on reducing deterministic thinking and pre-marital counseling.

**DISCUSSION**

 Reviewing studies in the present research showed a positive and significant correlation between deterministic thinking and immature defense mechanisms, anxiety, risky behaviors, and depression, and also a negative significant correlation with mature defense mechanisms, occupational stress, hope, mental health, creativity, emotional creativity and marital satisfaction.

 The discussion on the results of this study will be presented in two parts. The first part includes explanation and justification of direct correlation between deterministic thinking and mental problems such as anxiety, risky behaviors, and depression. The second part includes explanation and justification of inverse correlation between deterministic thinking and mental problems such as occupational stress.

 **First:** Owing to the fact that the relations between deterministic thinking and some of the mental problems have been detected, it can be asserted that determinism plays a major role in mental problems and disorders. Explanation and justification of the role of deterministic thinking in mental problems can be done from two perspectives: 1. People who tend to see things and events in certain conditions without any degree of probability always experience more anxiety, because they sabotage the balance between hope and fear from an Islamic perspective ([39](#_ENREF_39), [40](#_ENREF_40)). This refers to the nature of the world, in which all events cannot be precisely predicted without error, because creation is not finished ([31](#_ENREF_31)). Thus it is not possible to exactly predict the end of an unfinished job. In other words, both individuals who have either more hope than fear in predicting with optimism, or those who have more fear than hope in foreseeing events with pessimism, can experience anxiety and depression. 2. The distortion brings about cognitive rigidity and may be the source of all distortions (19). Cognitive rigidity is a main reason for depression, anxiety and other psychosocial maladjustments ([41](#_ENREF_41)). Cognitive rigidity may play a key role in psychopathology. It has been closely linked to the inability of suicidal individuals to consider alternatives that may be accessible to another person ([41](#_ENREF_41)), as well as to rumination, a major risk factor of depression ([42](#_ENREF_42)). Similar forms of cognitive rigidity were also indicated in obsessions ([43](#_ENREF_43), [44](#_ENREF_44)), alcohol dependence ([45](#_ENREF_45)), eating disorders ([46](#_ENREF_46)), and Attention Deficit Disorder ([47-49](#_ENREF_47)).

 Cognitive rigidity is the tendency to think in a dichotomous manner or “in polar extremes instead of shades of gray”. Indeed, cognitive rigidity occurs when individuals are unable to consider alternatives to the current situation, alternative viewpoints, or innovative solutions to a problem. Individuals with rigid thinking tend to view things in “either-or” terms (e.g., things are right or wrong, good or bad). They want concrete, black and white answers. The “gray areas” of life are very uncomfortable (e.g., they often has an exact way of doing things with no variations) ([50](#_ENREF_50)).

 **Second:** One of the notable findings in this study was the inverse correlation between deterministic thinking and occupational stress. The results showed that an increased or decreased level of deterministic thinking decreases or increases the level of occupational stress among nurses. Regarding the negative nature of occupational stress, it was expected that with the increase of deterministic thinking, nurses’ occupational stress would increase too. Occupational stress has become an increasingly public concern in the past three decades due to its significant impact on health and economic loss ([51](#_ENREF_51)). People who experience a lot of stress, pay less attention to their work; and in general, occupational stress lowers efficiency and productivity of employees ([33](#_ENREF_33)). In order to explain and justify inverse correlation between deterministic thinking and occupational stress, it can be said that from a cognitive point of view, a closer perception of people of the surrounding environment and its intellectual occupational stress, will result in a closer relationship between people and their environments as well as more logical respond to the events. Some environmental factors, including education, experience, hospital sizes, ward, working hours, support from co-workers and opportunities to consult in the workplace impact the level of understanding and experienced stress among nurses([33](#_ENREF_33)). In other words, on the one hand, the more the nurses have education and experience, diagnostic power, and do their tasks more confidently as a result, the less they experience stress. On the other hand, the nature of nursing jobs require that nurses take their decision with the highest level of certainty because any wrong decision can threaten the life of a man. So it can be said that deterministic thinking in nurses who have less stress is higher.

**CONCLUSION**

 Although deterministic thinking plays a destructive role in the interactions of individuals in family and society circumstances and leads to psychological problems, in some situations, such as nursing, it leads to the decrease of psychological problems. Addressing DT in cognitive therapy can help clients reduce their psychological problems.

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