



Meta-Cognitive Belief, Cognitive Fusion and Self-Compassion with Positive and Negative Affection in Female Students

Hamid Reza SamadiFard*

MA Student of Psychology, University of Mohaghegh Ardabili, Ardabil, Iran.

A B S T R A C T

This study aimed to investigate the relationship between meta-cognitive belief, cognitive fusion and self-compassion with positive and negative affection in Female students. This method was correlative- descriptive. The study population comprised of all students of Payam Noor University, unit Ardebil and 180 female students were selected through using random cluster sampling method and Morgan table. Wells' meta-cognitive belief scale, Gillanders' cognitive fusion scale, Reis' self-compassion scale and positive and negative affection of Watson et al. Research data was analyzed using Pearson correlation coefficient. The results of above table show that there is a significant negative correlation between meta-cognitive belief and negative affection ($p < 0.05$). Also there is a significant positive relationship between cognitive fusion and negative affection ($p < 0.05$). There are significant negative relationships between self-compassion, human common sense, mindfulness and total self-compassion with negative affection ($p < 0.05$). There are significant positive relationships between self-judgment, isolation and excessive self-imitation with negative affection ($p < 0.05$). Finally, it can be concluded that there is a significant relationship between meta-cognitive belief, cognitive fusion and self-compassion with positive and negative affection in female students.

Keywords: Diabetes, social dysfunction, stress inoculation training.

INTRODUCTION

Affection is essential part of the dynamic system of human's character. Features and changes of affection, the quality of establishment of emotional relationship and understanding and interpreting of the others' affection play an important role in the growth, character organization, moral development, social relations and formation of identity and self-concept (Erikson, 1994; Halverson, Lowenhaupt, Gibbons, & Bass, 2009). Chida and Steptoe (2008) in their study showed that positive affection is very important to enhance the perception of health. Also Kuppens, Realo, and Diener (2008) showed that positive affection is positively and negative affection is negatively correlated with life satisfaction. College life is a series of interactions which leads to social and cultural development. Due to factors such as access to modern research and knowledge and the development of science and technology student's lifestyle is changing, so their quality of life is also undergoing changes (Castells, 1996, 2011).

*. Corresponding Author: hksamadifard@gmail.com

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Meta-cognition is awareness and monitoring of defined thoughts (Iiskala, Vauras, Lehtinen, & Salonen, 2011). In addition, Meta-cognition is thinking about thinking process (Niemeyer, Moritz, & Pietrowsky, 2013). The results of a study conducted by Niemeyer et al. (2013) showed that Meta-cognitive deficit contributes in obsessive-compulsive disorder. The results of the study by Ghorbani, Watson, Omidbeiki, and Chen (2016) showed that low-cognitive belief decreases educational performance. The results of other studies have shown that psychiatric and especially schizophrenic patients experience cognitive and meta-cognitive deficits (Vohs, George, Leonhardt, & Lysaker, 2016). Outcalt et al. (2016) concluded that meta-cognitive defect is associated with borderline personality disorder.

The cognitive fusion phenomenon happens when a person is trapped in his intellectual context (Hayes, Strosahl, & Wilson, 1999). Hayes (2004) believed that emotions extensively combine with resulted thoughts from the real interpretation of experiences and make internal experiences of people undiscernible. The results of Samadifard (2016) study, showed the positive and significant relationship between cognitive fusion and emotional divorce of spouses. In addition, concluded that there is negative and significant relationship between cognitive fusion and students' life quality.

People with high self-compassion have a little more mental health in comparison with people with low self-compassion. Because the inevitable pain and feelings of failure that all people experience them will not continue by self-cruelly blame of an extreme sense of isolation and extreme replication with ideas and passion. Self-Compassion help to satisfy the basic needs for autonomy, competence and compassion to communicate with others and people who have a higher self-compassion, report more emotional coping skills. Also in distinction between popular feelings and emotions, the negative emotional states are more powerful. Research evidence shows that compassion lead to emotional resiliency for the people, so that people who have higher levels of these personality characteristics have less imitation thoughts. Other research findings show that people who have high self-compassion, have more boldness in dealing with negative events (Neff, Kirkpatrick, & Rude, 2007). Hollis-Walker and Colosimo (2011) also concluded that the self-compassion is an important prediction of mental health and have a role in the expression of pleasure. Also Gillanders et al. (2014) concluded that whatever the individuals' deterministic thought is the less there would be more self-compassion for them.

According to the above discussion and since in today's society students constitute a large portion of young people and their optimal performance plays an important role in the development and future of the country; so disruption in students' health status imposes adverse effects on their personal and social performance and will impose irreparable damages on the society. This study aimed to investigate the relationship between meta-cognitive belief, cognitive fusion and self-compassion with positive and negative affection in Female students.

METHODOLOGY

This method was correlative-descriptive. Research data was analyzed using Pearson correlation coefficient. The study population comprised of all Female students of Payam Noor University, unit Ardebil and 180 female students were selected through using random cluster sampling method and Morgan table. Wells' meta-cognitive belief scale, Gillanders' cognitive fusion scale, Reis' self-compassion scale and positive and negative affection of Watson et al.

were applied to collect data. Data collection tools are described below:

Wells' meta-cognitive belief scale: The initial version of Wells' meta-cognitive beliefs questionnaire which contained 65 articles was made by Cartwright-Hatton and Wells (1997). Due to the large number of articles, in 2004 Cartwright Hatton and Wells presented a new version of this questionnaire which contained 30 articles. The short form is known as Wales' meta-cognitive beliefs 30. This scale has five subscales as the main form and subscale's scores are added to obtain the total score. This questionnaire is scaled in a four-degree range from I don't agree to I completely agree. In the original version of this questionnaire the internal consistency is 0.93 for the total scale, 0.91 for the subscales of uncontrollability and danger, 0.92 for positive beliefs on anxiety, 0.92 for cognitive self-consciousness or cognitive self-awareness, 0.93 for confidence in memory or cognitive confidence and 0.72 for the need to control thoughts. Also retest reliability of the questionnaire -within four weeks- was 0.75 and 0.59 to 0.87 for the subscales respectively (Wells & Cartwright-Hatton, 2004). Finally, it should be noted that in the Iranian version of the questionnaire, Cronbach's alpha has been used to determine the internal consistency of the questionnaire and Cronbach's alpha was 0.91 for the whole questionnaire, 0.59 for the subscales of uncontrollability and danger, 0.83 for positive beliefs on anxiety, 0.81 for cognitive self-consciousness or cognitive self-awareness, 0.64 for confidence in memory or cognitive confidence and 0.65 for the need to control thoughts. Also in this research, Cronbach's alpha was used to determine the reliability of the questionnaire and it was 0.66 for the subscales of uncontrollability and danger, 0.77 for positive belief on anxiety, 0.74 for cognitive self-consciousness, 0.79 for cognitive confidence and 0.73 for the need to control thoughts and 0.9 for the whole questionnaire respectively. It should be noted that in this study data were analyzed through using total score of meta-cognitive belief.

Cognitive fusion scale: The Gillanders et al. cognitive fusion inventory (2014) was used (Gillanders et al., 2014). This instrument is in seven-point Likert spectrum from "never is true" to "always true". The Cronbach's alpha coefficient of cognitive fusion, diffusion, and overall inventory were reported 0.91, 0.71, and 0.88, respectively. In addition, in Iran Zareh study obtained this coefficient for cognitive fusion as 0.76. In this research, the inventory reliability was obtained 0.83 by Cronbach's alpha coefficient for all participants.

Scale of short form self-compassion: scale of 12-point short form self-pity was built by (Raes, Pommier, Neff, & Van Gucht, 2011) that is including 6 of kindly planar with the judge about himself, a sense of common humanity in contrary to isolation and awareness of mind against the heightened replication. The long form of this scale includes 26 points. Respondents should have responded to 5 degree Likert spectrum. Reese et al (2011) in their study reported internal consistency of the scale as 86%. In study of, Ghorbani, Watson, Chen, and Norballa (2012) internal consistency of the scale reported as 84%. In this research, the inventory reliability was obtained 0.82 by Cronbach's alpha coefficient for all participants.

Positive and negative affection of Watson et al: This scale by was presented by Watson, Clark, and Tellegen (1988) to evaluate the positive and negative moods and affection. In this scale, 20 categories which represent 20 feelings (10 positive and 10 negative feelings) are expressed in words and the opinion of the person who completes the form on these feelings will be assessed in a five-degree Likert scale, from "not at all = 1" to "very much = 5". YILMAZ and

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ARSLAN (2013) reported the reliability of this scale for positive affect and negative affect 0.54 and 0.45, respectively. Also to verify its validity they used Beck Depression Inventory and Beck Anxiety Inventory and the correlation coefficients ranged from 0.22 to 0.48 for positive affection and from 0.47 to 0.5 for negative affection. In a research by Golparvar and Karami (2010) Cronbach's alpha for positive affect and negative affect were 0.86 and 0.76, respectively.

RESULTS

Table 1 presents information about the means and standard deviations of meta-cognitive belief, cognitive fusion, self-compassion and positive and negative affection. The results of table 2 show that there is a significant positive relationship between meta-cognitive belief and positive affection.

Table 1. Mean and standard deviation of research variables

Variable		M	SD	N
Metacognitive Belief		9.32	4.15	180
Cognitive Fusion		9.39	4.21	180
Self-Compassion	Kindness of Own	7.18	3.16	180
	Judge about Own	7.10	3.01	180
	Human Common Sense	7.06	2.98	180
	Isolation	7.91	3.86	180
	Increasing Replication	8.13	3.95	180
	Awareness of Mind	7.02	2.92	180
	Total Self-Compassion	39.28	12.41	180
Affect	Positive Affect	10.04	4.55	180
	Negative Affect	9.02	4.02	180

Table 2. The correlation coefficients of meta-cognitive belief, cognitive fusion and self-compassion with positive and negative affection of students

variables		statistic	Positive Affect	Negative Affect
Metacognitive Belief		Pearson coefficient	0/523	-0/512
Cognitive Fusion		Pearson coefficient	-0/513	0/603
Self-Compassion	Kindness of own	Pearson coefficient	0/638	-0/423
	Judge about own	Pearson coefficient	-0/448	0/483
	Human Common Sense	Pearson coefficient	0/423	-0/453
	Isolation	Pearson coefficient	-0/554	0/633
	Increasing Replication	Pearson coefficient	-0/574	0/630
	Awareness of Mind	Pearson coefficient	0/611	-0/463
	Total Self-Compassion	Pearson coefficient	0/549	-0/493

Also there is a significant negative correlation between meta-cognitive belief and negative affection ($p < 0.05$). Also there is a significant negative relationship between cognitive fusion and positive affection and there is a significant positive relationship between cognitive fusion and negative affection ($p < 0.05$). Also there are significant positive relationships between self-

compassion, human common sense, mindfulness and total self-compassion with positive affection and there are significant negative relationships between self-compassion, human common sense, mindfulness and total self-compassion with negative affection ($p < 0.05$). There are also significant negative relationships between self-judgment, isolation and excessive self-imitation with positive affection and there are significant positive relationships between self-judgment, isolation and excessive self-imitation with negative affection ($p < 0.05$).

CONCLUSION

The present study was conducted to investigate the relationship between meta-cognitive belief, cognitive fusion and self-compassion with positive and negative affection in female students. The first part of results showed that there is a significant positive relationship between meta-cognitive belief and positive affection. Also, there is a significant negative relationship between meta-cognitive belief and negative affection. Since a similar study was not found to investigate the relationship between meta-cognitive belief, cognitive fusion and self-compassion with positive and negative affection in female students, so we couldn't evaluate its consistency or inconsistency with other studies. But in explaining obtained results we must say that Watson et al. (1988) have divided affection into two basic categories. Negative affection which indicates that to what extent the person feels unpleasant and unsatisfied? Negative affection is a general aspect of inner despair and not performing an enjoyable activity which is followed by negative mood states such as anger, sadness, disgust, and humiliation, feelings of guilt, fear and anger. On the other hand, positive affection is described as active energy, high concentration and performing an enjoyable activity. Positive affection includes a wide range of positive mood states including happiness, a sense of empowerment, enthusiasm, desire, passion and self-confidence. Different studies have shown that prosperity and success factors result from positive feelings and affection that people create in themselves. On the contrary, unsuccessful people are those who foster their negative feelings and affection. Positive affection represents enjoyable interaction of a person with the environment which consequently he feels very happy and enthusiastic. According to the findings of this study, with increasing meta-cognitive belief in female students, positive affection increases and negative affection decreases and the less meta-cognitive belief are the less positive affection and the more negative affection will be.

Another part of the results showed that there is a significant negative relationship between cognitive fusion and positive affection and there is a significant positive relationship between cognitive fusion and negative affection. This means that the more the cognitive fusion is the less the positive affection and the less the negative affection will be and vice versa.

The last part of the results showed that there are significant positive relationships between self-compassion, human common sense, mindfulness and total self-compassion with positive affection and there are significant negative relationships between self-compassion, human common sense, mindfulness and total self-compassion with negative affection. There are also significant negative relationships between self-judgment, isolation and excessive self-imitation with positive affection. This means that the more self-compassion, human common

sense, mindfulness and total self-compassion are in students, the more students' positive affection and the less their negative affection will be and the less these elements are the less their positive affection and the more their negative affection will be. Also the more self-judgment, isolation and excessive self-imitation are in students, the less their positive affection and the more their negative affection will be.

Finally, it can be concluded that there is a significant relationship between meta-cognitive belief, cognitive fusion and self-compassion with positive and negative affection in female students. One of the limitations of the study was that studied students were limited to the Payam Noor University, unit Ardebil. Therefore it is recommended to conduct other studies in other cities and universities as well to generalize the results with more reliability. On the other hand, this study is a correlational study and causal interpretation of the data is not possible; so it is recommended to conduct pilot studies to evaluate the causation of variables.

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