

The Relationship between integrative Self-knowledge, Mindfulness, Defense Mechanism with the Possibility of Suicide among Students

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ABSTRACT: Background and aim: Suicide has been defined as a deliberate action to end one's life. For years researchers have tried to study the causes of this unpleasant act and have determined different Bio social and cultural factors to explain it. This study was conducted with the aim of determining the relationship between integrative self-knowledge, mindfulness, and defense mechanism with the possibility of suicide among students. This study was a correlation study and the statistical population included all the 700 male and female students at Islamic Azad University, North Tehran branch in the academic year 2014-2015, of which 160 students were randomly selected. To collect the data, questionnaires of integrative self-knowledge, mindfulness, defense mechanism, the possibility of suicide were used respectively with reliabilities as the following (0.59, 0.64, 0.78, 0.87). The data obtained analyzed through the Pearson correlation coefficient and multiple regression and performed at the same time. According to the findings of this research, there was a negative and significant relationship between integrative self-knowledge and the possibility of suicide ($p < 0.01$), there was no significant relationship between mindfulness and possibility of suicide, there was a significant positive relationship between defense mechanism (neurotic and immature) and possibility of suicide, and there was a negative and significant correlation between the defense mechanism (mature) and the possibility of suicide. The results indicate that one of the reasons for variability of suicidal thought is the use of defense mechanisms and awareness of the emerging issues in life.

Keywords: Integrative Self-knowledge, Mindfulness, Defense Mechanism, Possibility of Suicide, Students.

INTRODUCTION

Suicide has been defined as a deliberate attempt to end one's own life. For years, researchers has attempted to find the causative factors of this unpleasant act and have provided different bio-social and cultural factors in order to explain it. Since the psychological variables have significant role the emergence of dangerous-provoking behaviors such as suicide, our attempt is to examine the role of some of the most important variables with regard to this behavior, that is, in this the relationship between integrative self-knowledge, mindfulness, and defense mechanisms regarding the possibility of suicide will be investigated. One of the favorite concepts of psychoanalysts is identity. Identity can be defined as integrated, organized, coordinated, targeted and normal mental management. From another point of view identity is the central dimension of psych of that personality results from it. Also, organizing experiences, feelings, behaviors, tolerance of ideological values, and interpersonal and social relationships were

ascribed to identity. Identity has different positive and negative aspects: The process of awareness regarding one's characteristics is considered self-knowledge, and the process of coordination, organization, and integration of components of identity is known as integrative self-knowledge.

Although self is logically indefinable, in the case of defining it one should take advantage from some of its conceptual derivations. Kohut as the founder of the psychology of self has from a psychoanalytic perspective explained the growth and emergence stages of self. From his point of view, self is a cohesive unit that is integrative in space and continuous in time, and is the axis of human action and recipient of his affections. According to Ghorbani and his colleagues' (2009) conceptualization, self-knowledge is the moment to moment awareness regarding psychological states and the ability of differentiation and analysis of the current experiences and also active cognitive process regarding self and about the past events that its result is bringing about a wide ranging perspective to guide behavior and to form more complex and broader individual scheme. There are concepts in psychological literature that the release of attention is considered the basis of those concepts. Several concepts show this overlap. Some of these concepts can be pointed out such as self-observation, lack of self-work management, independence; interdependence, work-orientees, and consciousness as a creative cognitive process (Singh et al., 2005).

Mindfulness is a creative and constructive cognitive process and emerges when a person has the following three main characteristics which are: a) creating a new categorization, b) acceptance of new information and c) awareness from deeper and more comprehensive points of view (Golpour Chamar & Kuhi Mohammad Amini, 2012). Mindfulness is adamant attention regarding the affairs in the present time that we have until now considered in another way. Examples of these affairs include awareness of breathing, neck pain, negative thoughts and worry about what you will do tomorrow and include repeated focus of the mind in the present time. Every thought, feeling or senses that enter into attention will be accepted and approved as they are. This preventive reaction is for thoughts that make you sad or anxious, and help you to return to equilibrium after the negative experienced emotions (Byron, 2005). Thus, mindfulness or presence of mind means awareness of thoughts, behaviors, emotions and motivations in such a way that we can manage and adjust them in a better way. In other words mindfulness means paying attention in a particular way; that is, the attention or focus that is composed of three elements: a) being in the present time, b) being purposeful, c) without judgment. This kind of attention leads to increase of awareness, clarity and acceptance of the present reality. Thus, we realize that our life has been occurred in the present and will be relieved. If we are not completely present, we cannot determine that what possibilities are exactly there? How can we have access to facilities? And how we bring about change and growth? Correct presence of mind means that an individual focuses his/her awareness of the past and future in the present. When one is in the present, he sees the reality with all of its internal and external dimensions and perceives that mind because of the judgments, interpretations and readings that it does is constantly engaged in an internal rumination and dialogue.

One of the basic variables that determine the orientations of behavior is defense mechanisms that have born and developed from the lap of psychodynamic theories. Freud's psychodynamic view like the past is influential on modern practice of personality therapy and cognition. Freud's psychoanalysis system is a model of personality development and offers a systematic structure for psychotherapy. In the psychodynamic system the emphasis is on three basic components: the unconscious thoughts as the main causes of human behavior, the conflict of the biological instincts with the expectations of society, and the determining experiences of childhood in the formation of personality. Although it is for 100 years that psychoanalysis has been introduced and various theories have been provided in the realm of psychology, but nowadays this theory is developing and expanding in such a way that different theories have emerged from this point of view (such as object relationship) (Halgin and Whitebourn, 2005). As is has been said, the reason of behavior according to psychoanalysts is unaware thoughts. Despite numerous critics regarding this school of thought, various researches in various realms of psychology have confirmed unconscious mental processes. According to what has been said in psychoanalysis, many of the concepts and theories of psychoanalysis are in some way linked to the concept of the unconscious. Among them (ego defense mechanisms) that Freud has defined them unconscious strategy (ego) to control instincts and impulses, and is one of the most important concepts related to the unconscious that were presented in psychoanalysis system in order to explain the defense functions of the psychological system in front of anxiety and mental stress (Afzali et al., 2009).

According to Freud, all of the individuals use defense mechanisms to keep away the potential irritant experiences and when these defense mechanisms are used in a dogmatic and radical way lead to psychological disorder. Freud's point of view regarding defense mechanisms have changed over the past years and fully have expanded in the works of Freud and his classic treatise entitled (ego and defense mechanisms) (Prochaska & Norcross, 2007). In recent decades, new insights are emerging with regard to the defense mechanisms and significant changes in the theoretical foundations in the field of defense and the defense establishment's assessment (Kramer, 2000). Classical theory of psychoanalysis considers defense mechanisms as combative forces with driving

instinctive instruments; but the contemporary and modern psychoanalysis, including psychologists of (self) and theory (object relationship) consider wider role for defense mechanisms, such as maintaining confidence and strengthening self-organization.

Generally, based on the psychoanalytical approach individuals in the face of psychological stresses use certain defense styles that each of them includes special defense mechanisms. These styles regarding the rate of maturity are divided into three groups: the immature or undeveloped, neurotic, adult or mature groups (Besharat et al., 2007). Current views about defense mechanisms based on the theoretical considerations classify the relations between these mechanisms with their general psychological health. The authors of the diagnostic and statistical manual of mental disorders, fourth edition on the basis of this approach provided a classification scheme called scale of defense performance that classifies defenses on a spectrum that has varying degrees of maturity. In the psychoanalytical system every psychological disorder is associated with certain maladaptive defense mechanisms; defenses play an important role in individual's psychological health. Due to changes and conditions of during the period of being a student and its pressures, it requires that these psychological problems should be considered extensively. In this regard, this study was conducted with the aim of determining the relationship between integrative self-knowledge, mindfulness, and defense mechanism with the possibility of suicide among students.

MATERIALS AND METHODS

This study was implemented to determine the relationship between integrative self-knowledge, and defense mechanism mindfulness, with the possibility of suicide. The method of this research was correlational approach and the statistical population included all of the 700 male and female students at Islamic Azad University, North Tehran branch during the academic year 2014-2015, 160 students were randomly selected as the sample in this study. The instruments used in the study were as the following:

The integrative self-knowledge scale (ISK): The integrative self-knowledge scale was developed by Ghorbani et al (2009), it consists 12 items that are answered on a five-point Likert scale. During several studies the validity and reliability of this scale were confirmed (the mean of alpha coefficients of this scale in the mentioned studies has been 0.80). A high score in this scale has been associated with evaluating the behavioral characteristics dependent on self-knowledge in both of the cultures. Self-knowledge in predicting the psychological health with in comparison with the five big personality characteristics has additive validity and more than this personality factors have the ability to explain psychological health. The alpha coefficient of this scale in this study has been 0.83 that represents the higher internal correlation of this scale.

Questionnaire of defense styles: The mature defense style includes mechanisms of sublimation, humor, anticipation and suppression. The mechanisms related to the neurotic defense style are as the following: Undoing, pseud-altruism, idealization, opposite reaction. The immature defense mechanism is also composed of twelve mechanisms as the following: Projection, passive aggression, acting-out, isolation, devaluation, autistic fantasy, denial, displacement, dissociation, splitting, rationalization, and somatization. The Cronbach alpha coefficient for questions of each defense style has been satisfactory. The psychometric characteristics of the Persian version of the defense styles questionnaire in several researches that have been conducted during the period from 1998 to 2006 in ill samples (n= 423) and normal (n= 1397), were investigated and confirmed. In these researches, the Cronbach alpha coefficients for each of the sub-scales of the defense styles questionnaire for the mature style obtained from, 0.83 to 0.94, for immature style from 0.81 to 0.92 and for neurotic style from 0.79 to 0.91. These questionnaire that all are significant at the level of $P < 0.001$, confirmed the retest validity of the defense style questionnaire.

Mindfulness questionnaire: in order to evaluate the variable of mindfulness Fryberg's mindfulness questionnaire was used. This questionnaire was constructed by Hild et al. the Cronbach alpha coefficient has been reported 0.97. Its short form has 15 items that answer to questions is on a Likert scale: never, sometimes, usually and always. Hopelessness Scale of Beck: In the scientific and research community the scale of hopelessness is used to measure possibility and tendencies towards suicide. This scale consists of 20 questions (true - false) in which the participants will be answer the true or false statements about themselves. The internal consistency coefficient of this test on the basis Kuder-Richardson Formula 20 between those who had suicidal thoughts and those who had committed suicide was 0.92 and 0.93, respectively. Also, the reliability of this scale in Iranian society is reported 0.71.

RESULTS

Table 1. Correlational matrix between self-knowledge and possibility of suicide (n=151).

	Self-knowledge	Possibility of suicide
Self-knowledge	1	r = - 0.294 p = 0.01
Possibility of suicide	r = - 0.294 p = 0.01	1

The above table shows that the relationship between the two variables is significant at 0.01 (p = 0.01, r = -0.294). Therefore, we can reject the null hypothesis at the level of 0.01 in favor of the research hypothesis and with 99% confidence it can be concluded that there is a negative and significant relationship between "self-knowledge" and "possibility of suicide". In other words, by increase of the subjects' "self-knowledge", the "possibility of suicide" will be reduced.

Table 2. Correlation matrix between mindfulness and possibility of suicide (n= 151).

	Mindfulness	Possibility of suicide
Mindfulness	1	r= - 0.153 p= 0.061
Possibility of suicide	r= - 0.153 p= 0.061	1

Based on Table 2, the significance level of the relationship between the two variables is larger than 0.05 (p= 0.061, r= - 0.153). Therefore, there is not enough evidence to reject the null hypothesis at the significance level of 1 percent, thus it can be said that there is no significant relationship between mindfulness and possibility of suicide.

Table 3. Correlation matrix between defense mechanisms and the possibility of suicide (n = 151).

Variables	1	2	3	4
Mature defense mechanism	1	-	-	-
Immature defense mechanisms	- 0.167*	1	-	-
Neurotic defense mechanism	- 0.03	0.074	1	-
Possibility of suicide	- 0.183*	0.432**	0.168*	1

Based on Table 3, there is a negative and significant relationship "possibility of suicide" and "mature defense mechanism" at the level of 0.05, while there is a positive relationship between " possibilities of suicide" and "neurotic and immature defense mechanisms".

Table 4. Summary of the regression test to examine the relationship between self-knowledge, mindfulness and defense mechanisms with the possibility of suicide.

Model	Predictive variables entered in the model	Correlation coefficient	Square of correlation coefficient	Adjusted correlation	Significance level
1	Self-knowledge Mindfulness Mature defense mechanism Immature defense mechanisms Neurotic defense mechanism	0.515	0.265	0.240	0.01

Criterion variable: Possibility of suicide

Based on Table 4, the correlation between the "5 predictor variables" and "possibility of suicide" equal 0.515. In other words, the variable of "self-knowledge", "mindfulness" and "mature, immature and neurotic defense mechanisms" together approximately explained 26.5 percent of the variations regarding the subjects' "possibility of suicide" ($R^2=0.265$). Also the statistic calculations related to F showed that the square of the multi-level correlation is significant at level of 0.01 ($p=0.01$; 145 and $df=5$, $F=10.5$). The next output of computer shows analysis of the regression coefficients of the model.

Table 5. Coefficients of the predictor variables in predicting possibility of suicide.

Variables included in the model	Model	B	SE	Standardized coefficients of the variables	t	Significance level
	Width from source					
	Variable coefficient					
Self-Knowledge	Variable coefficient	4.3	3.6	-	1.2	0.23
Mindfulness	Variable coefficient	- 0.107	0.04	- 0.195	-2.7	0.01
Immature defense mechanisms	Variable coefficient	- 0.036	0.026	0.099	- 1.4	0.17
Mature defense mechanism	Variable coefficient	0.223	0.046	0.359	4.9	0.01
neurotic defense mechanism	Variable coefficient	- 0.048	0.032	0.110	- 1.5	0.13
	Variable coefficient	0.045	0.031	0.106	1.5	0.15
	Variable coefficient					
	Variable coefficient					
	Variable coefficient					

As can be seen in Table 5, the significant level of coefficients is significant only about the variables of "self-knowledge" and "immature defense mechanisms" at the level of 0.01. In other words, only the variables of "self-knowledge" and "immature defense mechanisms" are significant predictors of "possibility of suicide". While the variables of "mindfulness" and "mature and neurotic defense mechanisms" have lost their role in predicting "possibility of suicide". Therefore, according to the provided data in the table, the regression equation can be written as the following: Predicted possibility of suicide (Y) = 0.359 (immature defense mechanisms) -0.195 (Self-knowledge). Based on the above-mentioned regression model, it can be said that an increase of one standard deviation in "immature defense mechanism" to 0.359, the standard deviation increases "possibility of suicide" and by adding one standard deviation in subjects' "self-knowledge" about 0.195 of the standard deviation of their "possibility of suicide" will be reduced.

DISCUSSION AND CONCLUSION

The results of this study have shown that there is a negative relationship between integrative self-knowledge and possibility of suicide. There is a positive and significant relationship between possibility of suicide and defense mechanism (neurotic and immature) and there is a significant negative relationship between possibility of suicide and (mature defense mechanism). There is no significant relationship between mindfulness and possibility of suicide. In explaining the results obtained with regard to the relationship between integrative self-knowledge and possibility of suicide it can be said that hopeless individuals and those who are likely to commit suicide have lower integrative self-knowledge and higher interpersonal sensitivity and self-injury. And in terms of mindfulness, self-control, interpersonal ambivalence and self-damage have differences with those who commit suicide. There is a balance between the coordination of psychological system and immune system. In other words, integrative self-knowledge that plays a coordinating role at interpersonal level and with processing an individual's information bring about integrity at the level of different systems related to psychology itself.

On the other hand, mindfulness and self-control variables as variables of self-recognition play a coordinating role in our psychological system. Sensitivity in interpersonal relations, aggression and self-harm are processes that clearly and directly measure the inconsistency with ego (self). Thus, both of the findings related to integrative self-knowledge and findings related to suicidal variables and interpersonal sensitivity confirm coordination of physiological and safety systems. In a way that minute by minute, the psychological system, through a hoop, controls actions of our physical system. Therefore, when an individual's level of defense system and self-knowledge comes down, the possibility of suicide and self-harm in individual increases.

Human being in order to be in peace and put away his/her own concerns and anxieties, it is necessary for him/her to create a deep and realistic relationship with the continuous and moment by moment flow of live. The functional representation of this concept has been recommended with exercises along with concentration and paying attention to the five senses in deep understanding and with relaxing moments and pleasures. Creation of positive spirit and hope is not only and solely for the sake giving hope, but also is the basis for correct and constructive thinking. Several studies have shown that there is a strong bilateral relation between the constructive thoughts and positive emotions. Positive and constructive thinking requires correct and detailed attention to the surrounding facts, lack of orientation and thinking despairs, correct definition of problem and suitable analysis that are not possible without the positive emotions. This component emphasizes on taking a non-evaluative standpoint regarding private experiences (such as cognitive biases, beliefs and assumptions in suicide) (Kabat-Zinn, 2003), and helps an individual to experience emotions without reappraising them, for good or bad, as they happen. Lack of reaction to internal experience also refers to the fact that an individual gives permission of entrance and exit to thoughts and feelings without getting involved with them.

In explaining the results of investigating the relationship of defense mechanism (neuroticism) it can be said that neurotic defense mechanisms are dysfunctional and maladaptive competitive approaches that in people with problems of depression and anxiety are seen more, anxiety plays the role of a sign and represents that an imminent danger that is in fact a threat to self must be avoided or foiled. The self should decrease the conflict between the longings of innate self and society's severities or superego. We usually defend ourselves by using some a number of mechanisms at the same time in front of anxiety and in order to get free from anxiety resulting from lack of provision of character's need, that whose fulfillment brings about punishment on the part of conscience and society and we resort to a series of defense mechanisms. The procedure of self-defense style, that is, the frequency of using defense mechanisms in comparison with others is major variable for personality recognition, pathology and the rate of adjustment. Some researchers have found significant relationship between immature mechanisms with behavior of self-harm; these mechanisms are often applied unconsciously and are usually associated with distortion, denial and transformation of reality and leads to self-deception. Neurotic mechanism is common in all people. The defenses have been helpful in the short term but in the long run lead to problems in relationships, career and success in life. Such as: Rationalization, rejection, inverse reaction, displacement and separation. Those who use mechanisms of rationalization, rejection and displacement to deal with problems do not solve the ability to confront with problems and the power of solving conflicts. Therefore, these people are easily frustrated and the possibility of being affected by depression and suicide in this individuals is high (Vaillant, 1999).

The results of the relationship between defense mechanisms (immature) with the possibility of suicide among students "have shown that there is a positive and significant correlation between defense mechanism (immature) and possibility of suicide. In explaining this result it can be said: Depressed patients in comparison with non-depressed patients have differences regarding defense styles and personality traits. Defense mechanisms are automated regulatory processes are used to reduce cognitive dissonance and to minimize sudden changes in the internal and external reality through influencing the way of perceiving threatening events (Vaillant, 1999).

This finding emphasize on the importance of development of the fundamental mechanisms such as defense styles resulting from treatment. This finding is consistent with the prevailing view about the correlation of the growth rate of defense mechanisms and psychopathology. In fact, the defense mechanisms distort reality and the rate of distortion in immature and neurotic defenses is more than mature defenses. The more the degree of cognitive distortions of a defense to be, the rate of sober awareness will be decreased and as a result less effort will be done to deal with cognitive distortions. Therefore, defense mechanisms of our conscious recognition that change our understanding of ego (self), decrease our understanding of our conflicts, influence our conflicting emotions with our beliefs. Therefore, defense mechanisms particularly immature mechanisms became barriers to a person's perception of reality and remove the possibility of a rational and effective defense from him and decrease his intellectual and self-exploration capacity.

The relationship between defense mechanisms (mature) with the possibility of suicide among students has shown that there is a negative and significant correlation between the defense mechanisms (mature) and the possibility of suicide. In explaining the results obtained it can be said that: One of the mechanisms is called "mature

and adulthood defense mechanisms" and an individual will attain them at the later stages of ego growth. These defenses are acceptable are committed by healthy adults. And these defenses play a decisive and positive in individuals' mental health. One of these mature defense mechanisms is use of "humor" (third example). In this situation, the individual in order to cope with his/her own problems and conflicts, rather than using projection for example and getting angry or showing aggressive behavior, makes use of humor; and by being humorous about the excruciating issues that he/she is faced with them, reduces their bitterness and comfortably come along with them. "Altruism" is also one of the mature defense mechanisms in which one thinks and cares about satisfaction and benefit of others' life (fourth example). Defense mechanism of "sublimation" is one of these mature defenses. In sublimation an individual instead of explicitly manifesting the unconscious instinctive impulses (that are in conflict often with both real-life situations, and also with the individual's moral and ethical standards), changes their form and moderate them and states them in a form that is socially acceptable. For example, one's aggressive instinctive impulses can be used in artistic creation (writing stories or making films with this kind of content) or can be used in competitive and combative sports. That is, an instinct that its performance is faced with social ban or conflict with one's own conscience. Simaee (2010), in his study found that if individual have more supportive resources in front of additional pressures, they will be hopeful in front of those threatening conditions and will be able to use effective, efficient and developed combative styles. Since the developed defensive style includes three subcategories of sublimation, humor and anticipation, therefore, it reduces the level of frustration in individuals. And it seems that individuals who are not depressed are more likely to use mature defenses. Therefore, there is reverse relationship between use of mature defense mechanisms and the possibility of suicide.

Conflict of interest

The authors declare no conflict of interest

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