

Non-reactivity, Non-judging, Control of Thoughts Beliefs and Acting with Awareness as Predicators of Depression Symptoms among Student Teachers

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Abstract

People with depressive disorder tend to focus their attention on more interesting and unpleasant information, interpret it negatively and create pessimistic beliefs in its light. The present study aimed at identifying (1) the predictability of depression through the mindfulness facets (observing, describing, acting with awareness, non-judging of inner experience, non-reactivity to inner experience), (2) the predictability of depression through obsessional beliefs (overestimation of threat/responsibility, perfectionism/certainty and importance/control of thoughts), and (3) the eight variables that are able to predict depression symptoms. The study tools were administered to 400 students at the Faculty of Education (190 males and 210 females), Assiut University. The study tools included: the five facets of mindfulness questionnaire (FFMQ), the obsessional beliefs scale (OBS), and Beck depression scale (BDI-II). The researcher used the following statistical methods to check the validity of the tools and process data: internal consistency, construct validity, stepwise multiple linear regression and hierarchical regression analysis. The findings of the study concluded that the mindfulness facets (observing, acting with awareness and non-reactivity to inner experience) were best able to predict the symptoms of depression. In addition, the obsessional beliefs (importance/control of thoughts and perfectionism/certainty) were best able to predict the symptoms of depression. The results of the third hypothesis showed the arrangement of the eight variables (non-reactivity, non-judging, observing, acting with awareness, importance/control of thoughts beliefs, overestimation of threat/responsibility, describing and certainty/perfectionism) according to the contribution of each variable to the prediction of depression symptoms.

Keywords

Non-reactivity, non-judging, control of thoughts, perfectionism/certainty, overestimation of threat/responsibility, describing, and observing.

To cite this article: Mohamed. A and Alkholy, A, (2021) Non-reactivity, Non-judging, Control of Thoughts Beliefs and Acting with Awareness as Predicators of Depression Symptoms among Student Teachers. *Review of International Geographical Education (RiGEO)*, 11(7), 1205-1218. doi: 10.48047/rigeo.11.07.112

Submitted: 10-10-2020 • **Revised:** 14-12-2020 • **Accepted:** 18-02-2021

Introduction

The human mind is a rich fabric of thoughts, images, emotions, feelings and impulses. The human mind, in its flow, does not always follow a logical path. Its flow is usually permeated by undesired cognitive activity which goes against our ability to think and perform productively. It is normal that a proportion of these activities/thoughts is just cognitive interferences that impede performance and distract attention while recalling or working (Clark, 2005). Negative thinking dominates the mind of people with mental disorders (A. Wells, 2002). Mental disorder is caused by a pattern of thinking called cognitive attentional syndrome (CAS) which is composed of concern/rumination and attention (Adrian Wells & Carter, 2009). Concern, distractions, attentional biases, memory lapses, mind wandering, day dreaming, self-focus, ruminations and obsessional thought are considered examples of the mental processes that cause such cognitive interferences and cause people to suffer from mental disorders especially depression (Klinger, 1996).

The term 'depression' is used to refer to desperate mood and psychological disorder. Severe depression (clinical depression) is defined as a mood disorder which means that the person's emotional condition is unnaturally low or sad and that he/she can not improve his/her mood independently. The main symptom of severe depression is sad mood that lasts for more than two weeks (Jorm, Allen et al., 2013). Beck and Alford (2009) mentioned that depression was recognized as a clinical syndrome over 2000 years ago. Today, depression ranks second as the main cause of disability in the age group of 15-44 years for both sexes (Ju, Wang et al., 2020). The increasing spread of depression is regarded as an international health epidemic. It has been estimated that depression costs about 1% of gross domestic product in Western countries (Ferrari, Yap et al., 2018) and results in an obvious decrease in interest or entertainment in almost all activities (Bernaras, Jaureguizar et al., 2019). Its symptoms also cause a significant burden on the individual and society (Ferrari, Yap et al., 2018).

Research results point out that neuroticism, perfectionism, interpersonal sensitivity, dysfunctional beliefs and automatic beliefs increase during the phase of depression symptoms (Mathew, Sudhir et al., 2014). Unipolar depression leads to a significant and noticeable impairment in daily tasks and mainly contributes to the burden of disease worldwide because of the increased rate of its spread. Researchers were concerned with identifying the key psychological processes that are considered the cause behind its occurrence (Mathew, Sudhir et al., 2014). A 10-year longitudinal study showed that depression rates increase by six times during adolescence (Lakdawalla, Hankin et al., 2007). Epidemiological studies indicate that the age group 15-21 (university years) had the highest prevalence rate of mental disorders in the last years with a percentage of 39%. Based on the results of the American Health Association, the rates of the students who were diagnosed with depression increased from 10% in 2000 to 18% in 2008 (Mackenzie, Wiegel et al., 2011). The depressive episode during adolescence causes problems of educational attainment, peer isolation and suicide (Küçük, Gür et al., 2016). These facts are true and inevitable especially among teenagers. This is because; the rates of depression increase during the transition from childhood to adolescence and then settle at high prevalence rates through the phase of adolescence (Lakdawalla, Hankin et al., 2007).

Schut and Boelen (2017) emphasizes that rumination, experiential avoidance and mindfulness are considered important strategies for cognitive emotion regulation in the etiology of depression symptoms. Mindfulness became prominent in the last few years as an important and flexible factor that can help improve the mental health of individuals, especially those who suffer from psychological pressures (Calvete, Gámez-Guadix et al., 2017). Clinicians focused on it as one of the elements of mental health (Ahmadi, Mustaffa et al., 2014). Kudesia (2019) mentions that Mindfulness helps us improve mental flexibility and metacognitive insight which refers to the development of an individual's understanding and his/her awareness of the thinking processes which he/she uses in dealing with his/her thoughts. Mindfulness is the translation of the word 'Palisati' and this term was used in the ancient Buddhists' texts to refer to the awareness that accompanies any thought or action performed by a person (J. M. G. Williams, 2008). Brown and Ryan (2003) suggested that mindfulness consists of attention, awareness of current events and experience (Bostanov, Ohlrogge et al., 2018; J. M. Williams & Kabat-Zinn, 2013). Mindfulness generally involves maintaining one's awareness (attention) of his/her current experience rather than distracting his/her attention by reflecting on past experiences of being concerned about the future (Bishop, Lau et al., 2004; Kabat-Zinn, 2003). Kudesia (2019) mentions that mindfulness is considered a characteristic of awareness which includes an individual's ability to observe his/her thoughts without judging. This ability made many researchers regard it as a cognitive skill. J. M.

G. Williams (2008) adds that awareness emerges as a by-product of acquiring three skills: (1) intentionally caring about events moment-by-moment, (2) observing habitual reactions to these events which are often characterized by hatred and leads to rumination or avoidance and (3) developing the ability to respond to these events and react with some kind of curiosity or empathy. Mindfulness is defined as an individual's awareness due to focusing his/her attention on the present, moment-by-moment, non-judging of his/her inner experiences (Erus & Tekel, 2020). It includes individuals' thoughts, their emotions, their objective observations and focusing their attention on their inner experiences, accepting them without reacting to or judging them (Pratscher, Rose et al., 2018).

Although our emotions help us respond in accordance with the problems and opportunities that we face in our lives, their deviation lead to emotional disturbances (Abdi, Chalabianloo et al., 2015). The pursuit of excellence is considered a great goal and adaptive perfectionism can lead to ambition and unprecedented achievements. Individuals with outstanding results and performances show signs of adaptive perfectionism (Melrose, 2011). Researchers have shown clear causal linkages between non-adaptive perfectionism (e.g. fear of committing mistakes, very high personal expectations and an inner monologue characterized by severe self-criticism) and the prevalence of mental disorders such as anxiety, eating disorders, depression and suicide (Lessin & Pardo, 2017). Ferrari, Yap et al. (2018) support this view as they show that non-adaptive perfectionism which relies on self-criticism, fear of committing mistakes and fear of negative evaluation of others correlate with mental disorders. Melrose (2011) adds that non-adaptive perfectionism (where an individual thinks that anything that he/she achieves is less than perfect, unacceptable and catastrophic) can leave an individual a prey of depression.

The present study aims at revealing the predictability of depression symptoms through mindfulness facets (observing, describing, acting with awareness and non-judging of inner experience, non-reactivity to inner experience) and obsessional beliefs (overestimation of threat/responsibility, certainty/perfectionism and importance/control of thoughts). It also aims at revealing which of these eight variables contribute most to the prediction of depression symptoms.

Methods:

Sample and Procedures

The study sample consisted of 400 volunteer students from the Faculty of Education, Assuit University, who completed the study tools. The data were obtained at the end of March, 2020 and April, 2020 and the tools were electronically administered. The pilot study consisted of 80 male and female students enrolled in the third year at the Faculty of Education, Assuit University with an average age of (20.28) and a standard deviation of (1.16). The main study included 400 male and female students enrolled in the fourth year (190 male students, 210 female students), with an average age of (20.31) and a standard deviation of (1.28). In choosing the main sample, the researcher relied on the systematic stratified sampling method. Stepwise multiple linear regression was conducted to process the first and second hypotheses. To formulate the third hypothesis, the researcher carefully reviewed the results of the predicative studies which examined the variables of the contribution of the Five-Facet Mindfulness and obsessional beliefs to the prediction of depression symptoms during the past 10 years, from 2010 to 2020. The eight variables of the study were then arranged according to their contribution the prediction of depression symptoms as maintained by the results of that study. Hierarchical regression was used in processing that hypothesis.

Scales

The Five Facets of Mindfulness Questionnaire (FFMQ):

The Five Facet-Mindfulness Questionnaire is a multi-dimensional scale that has been prepared, developed and validated on a variety of samples of the English society by Baer, Smith et al. (2006). This scale consists of 39 items that were distributed through the exploratory factor analysis and the confirmatory factor analysis over five factors: (1) observing, (2) describing, (3) acting with awareness, (4) non-judging of inner experience and (5) non-reactivity to inner experience. The creators of this scale have verified its reliability and validity. The findings indicated that all mindfulness facets are positively correlated as the results of the exploratory factor analysis and the confirmatory factor analysis

confirmed the five factor model. This scale was translated into many languages of the world and its validity and applicability in these societies have been established. Meng, Mao et al. (2020) mentioned that this popularity is due to its good practical psychometric properties. The researcher verified the validity and reliability of this scale on the study sample as the reliability values, using the Alpha Cronbach formula, ranged between 0.694 and 0.800 which are acceptable values that reflect its reliability. The correlation between mindfulness and the symptoms of depression was 0.154, which is significant at $p = 0.05$.

Obsessional Beliefs Scale

The Obsessive Compulsive Cognitions Working Group (OCCW, 2005) reduced the six factors of the first version of the Obsessive Beliefs Scale into just three: responsibility/threat estimation (RT) which includes 16 expressions, perfectionism/certainty (PC) which also includes 16 expressions; 12 of which are for perfection and the other 4 are for confidence and importance/control of thoughts (ICT) which includes 12 expressions. Thus, the final image of this scale reached 44 expressions. Steketee and her colleagues verified the reliability of this scale by using the Alpha Cronbach's Formula and it reached 0.9 which is significant at 0.01 and reflects its reliability. The internal consistency method was used to check the scale's internal consistency between total score of the test and the total of the three dimensions and between the dimensions. The correlation coefficients values between the scale and its three dimensions ranged between 0.98 and 0.83 which is high and reflects the correlation between the dimensions and the scale. The correlation coefficients between the dimensions ranged between 0.88 and 0.42. The researchers used many methods to check the validity of the scale besides the factor analysis including the concurrent validity where correlation coefficients between the obsessional beliefs scale and the sub-dimensions of Padua's obsessive-compulsive disorder inventory were found: harm impulses, harm thoughts, checking and contamination. The correlation coefficients between the sum of the sample on the obsessional beliefs scale and the sum of the same sample on the dimensions of Padua inventory were significant at $p = 0.01$. Moreover, the researcher checked the validity of the obsessional beliefs scale by calculating the correlations among the sum of the sample survey on the scale's three dimensions (responsibility/threat estimation, perfectionism/certainty and confidence and importance/control of thoughts) where the correlation coefficients were 0.188, 0.031, 0.161, and 0.136, respectively. The first value was significant at $p = 0.01$ while the third one was significant at 0.05. The reliability values ranged between 0.771 and 0.797 by using the Alpha Cronbach's Formula. However, the reliability values ranged between 0.771 and 0.763 by using the Spearman-Brown Formula of split-half reliability, which are acceptable values and reflect the reliability of the obsessional beliefs scale.

Beck Depression Inventory (D-2)

There are two versions of the Beck Depression Inventory (BDI). The first version consists of 21 items that were published (Beck & Alford, 2009; Georgi, Vlckova et al., 2019). This scale has been translated into Arabic and standardized on the Egyptian environment in 1981. It received high correlation coefficients by using various methods including the test-retest method. The reliability value reached 0.77, which is significant at $p = 0.01$. It also received high validity by finding the correlations between the current scale and the depression scale which is one of the Minnesota's Multiphasic Personality Inventory (MMPI). The correlation coefficients between the two tests reached 0.06, which is significant at $p = 0.001$. Beck Depression Inventory covers 21 items. Every item has four alternatives which are controlled verbal responses with scores ranging between zero and three for each item. The total sum of the scale is the total sum of items. The researcher verified the validity and reliability of this study as the reliability value reached 0.726 which is fit and reflects its reliability by using the Alpha Cronbach formula.

Statistical Analysis

The SPSS version 24.0 for Windows (SPSS Inc., Chicago, IL, USA) was used for data processing and analysis. First, descriptive analysis was done, internal consistency (Cronbach's α) and construct validity (with confirmatory factor analysis) were calculated for all instruments applied. Bivariate correlations were analyzed in order to explore the correlations between the variables. Then, a stepwise multiple linear regression analysis was carried out with 'depression' as the dependent variable. The predictor variables

were **the Five-Facet Mindfulness** (Non-reactivity, describing, acting with awareness, non-judging, observing) and **the Obsessional beliefs** (responsibility/threat estimation (RT), perfectionism/certainty (PC), importance/control of thoughts (ICT))

Results:

The First Hypothesis:

It states that depression can be predicted in the study sample through the five-facet mindfulness scale (observing, describing, acting with awareness, non-judging, and non-reactivity). Multiple linear regression analysis was used to verify the validity of this hypothesis, considering that depression is a dependent variable while the five-facet mindfulness as independent variables. Stepwise Multiple Linear Regression analysis was conducted and three regression models were found as shown in [table \(1\)](#) below:

Table 1.

Linear regression analysis by considering mindfulness as an independent variable and depression as a dependent variable

Model	Variables	B Value	std. error	B	F value	T value	R	R ²
1	Constant	-3.60	1.55			-2.33**	0.355	0.126
	Observation	0.52	0.10	0.36	29.23**	5.41**		
2	Constant	8.12	3.66			2.22*	0.435	0.189
	Observation	0.44	0.10	0.30	23.53**	4.58**		
	Acting with awareness	-0.36	0.09	-0.26		-3.96**		
3	Constant	12.16	4.16			2.93**	0.452	0.205
	Observation	0.47	0.10	0.32		4.89**		
	Acting with awareness	-0.31	0.09	-0.22	17.24**	-3.25**		
	Non-reactivity	-0.28	0.14	-0.13		-1.99*		

Significant at (0.05), **significant at (0.01)

On reading the results of table (1): the third three-dimensional model which includes observing, acting with awareness and non-reactivity is accepted as it shows an acceptable improvement in the values of multiple correlation coefficients (R) compared to the second model. The 'F' value of the third regression model was 17.24 which is statistically significant at $p = 0.01$. The multiple correlation coefficient (R) was 0.452 and the squared multiple correlation coefficient (R^2) was 0.205, which means that the independent variables in the third model account for 20.5% of the total variance in the dependent variable (depression symptoms). It could be said that the mindfulness facets that contributed most to the prediction of depression symptoms are: observing, acting with awareness and non-reactivity. The two dimensions (i.e. describing and non-judging) have not contributed to the prediction of depression in the study sample.

The Second Hypothesis:

It states that obsessional beliefs (responsibility/threat overestimation, importance/control of thoughts, and certainty/perfectionism) can predict depression in the study sample. To establish the validity of this hypothesis, multiple linear regression analysis was used, considering depression as a dependent variable and obsessional beliefs as independent variables. The Stepwise Multiple Linear Regression analysis was

conducted and two regression models were reached as shown in [table \(2\)](#):

Table 2.

Linear regression analysis by considering obsessional beliefs as an independent variable and depression as dependent variable

Model	Variables	B		β	F value	T value	R	R ²
		Value	std. error					
1	Constant	4.34	1.46			2.98**		
	Importance/control of thoughts (ICT)	0.17	0.06	0.19	7.5**	2.73**	0.188	0.035
2	Constant	6.58	2.67			2.47*		
	Importance/control of thoughts (ICT)	0.30	0.09	0.33	5.9**	3.42**	0.236	0.055
	Perfectionism/Certainty (PC)	-0.16	0.08	-		-2.07*		

Significant at (0.05), significant at (0.01)

On reading the results of [table \(2\)](#) above, the following can be concluded:

The second two-dimensional model which includes importance/control of thoughts and certainty/perfectionism is accepted as it shows acceptable improvement in the values of multiple correlation coefficients (R) compared to the first model. The 'F' value of the second regression model was 5.9, which is statistically significant at $p = 0.01$. The multiple correlation coefficient (R) was 0.236 and the squared multiple correlation coefficient (R²) was 0.055, which means that the independent variables in the second model account for 5.5% of the total variance in the dependent variable (depression symptoms). It could be said that importance/control of thoughts and certainty/perfectionism contributed to the prediction of depression symptoms. In addition, the results of the second hypothesis showed that responsibility/threat overestimation have not contributed to the prediction of depression in the study sample.

The Third Hypothesis:

It states that the following eight variables (non-judging of inner experience, non-reactivity to inner experience, importance/control of thoughts, acting with awareness, perfectionism and certainty, observing, describing and responsibility, threat overestimation) can predict the symptoms of depression in the study sample. After a careful reading of the findings of previous studies that examined the contribution of Mindfulness facets and obsessional beliefs to the prediction of depression symptoms during the past 10 years, these eight variables were arranged according to the unanimity of previous studies on the contribution of each variable in predicting depression symptoms. [Table \(3\)](#) illustrates the correlation between the predictive variables and the dependent variables:

Table 3. Zero – order correlation between predictor and dependent variables

	1	2	3	4	5	6	7	8
1. Non-reactivity								
2. Describing	0.302**							
3. Acting with awareness	0.255**	0.271**						
4. Non-Judging	0.331**	-0.229**	0.297**					
5. Observation	-0.291**	0.316**	-0.222**	-0.570**				
6. Responsibility/threat estimation (RT)	0.029	0.211**	-0.129	-0.223**	0.314**			
7. Perfectionism/Certainty (PC)	0.160	0.331**	0.022	-0.057	0.258**	0.699**		
8. Importance/control of thoughts (ICT)	0.083	0.174	-0.072	-0.167	0.261**	0.721**	0.595**	
9. BDI-II scale	-0.252**	0.079	-0.324**	-0.323**	0.355**	0.188**	0.331**	0.461**

The following steps were followed to check the validity of this hypothesis:

For Step 1, we entered non-reactivity into the equation. In Step 2, we entered non-judging into the hierarchical regression equation. Studies (Constantine & Ladany, 2000) have revealed a significant relationship between empathy and MCC. Additionally, previous studies (Fulton, 2016; Greason & Cashwell, 2009) have indicated a relationship between empathy and mindfulness. In Step 3, we entered Importance/control of thoughts (ICT), into the hierarchical regression equation. In Step 2, we entered non-judging into the hierarchical regression equation. In Step 4, we entered acting with awareness into the hierarchical regression equation. In Step 5, we entered perfectionism/certainty (PC) into the hierarchical regression equation. In Step 6, we entered observation into the hierarchical regression equation. In Step 7, we entered describing into the hierarchical regression equation. Finally, in Step 8, we entered responsibility/threat estimation (RT) into the hierarchical regression equation. For each hierarchical regression, the assumptions of multicollinearity, normally distributed errors and uncorrelated errors were checked and met. Table 4 provides a summary of the hierarchical regression results for variables predicting depression:

Table 4.

Hierarchical regression analysis for variables predicting depression

	Predictor Variable	B	SE B	β	R ²	ΔR^2
Step 1	Constant	18.07	3.31		0.023	
	Non-reactivity	-0.33	0.15	-0.15*		
Step 2	Constant	30.34	3.97		0.131	0.108
	Non-reactivity	-0.35	0.14	-0.16*		
Step 3	Constant	26.53	4.44		0.146	0.015
	Non-reactivity	-0.37	0.14	-0.17**		
	Non-Judging	-0.47	0.10	-0.31**		
	Importance/control of thoughts (ICT)	of 0.14	0.07	0.12		
Step 4	Constant	28.91	4.42		0.184	0.038
	Non-reactivity	-0.25	0.14	-0.12		
	Non-Judging	-0.37	0.10	-0.24**		
	Importance/control of thoughts (ICT)	of 0.12	0.07	0.12		
Step 5	Acting with awareness	-0.30	0.10	-0.21**	0.185	0.001
	Constant	29.44	4.53			
	Non-reactivity	-0.24	0.15	-0.11		

Step 6	Non-Judging	-0.37	0.10	-0.24**		
	Importance/control thoughts (ICT)	of 0.15	0.09	0.14		
	Acting with awareness	-0.30	0.10	-0.21**		
	Perfectionism/Certainty (PC)	-0.04	0.06	-0.05		
	Constant	17.25	5.85			
Step 7	Non-reactivity	-0.28	0.14	-0.13*		
	Non-Judging	-0.17	0.12	-0.11		
	Importance/control thoughts (ICT)	of 0.14	0.09	0.13	0.225	0.040
	Acting with awareness	-0.27	0.10	-0.19*		
	Perfectionism/Certainty (PC)	-0.07	0.06	-0.09		
	Observation	0.37	0.12	0.26**		
	Constant	16.16	6.03			
	Non-reactivity	-0.31	0.15	-0.14*		
	Non-Judging	-0.15	0.12	-0.10		
	Importance/control thoughts (ICT)	of 0.15	0.09	0.13	0.227	0.002
Step 8	Acting with awareness	-0.28	0.10	-0.20*		
	Perfectionism/Certainty (PC)	-0.09	0.07	-0.11		
	Observation	0.36	0.12	0.25*		
	Describing	0.09	0.12	0.06		
	Constant	14.62	6.23			
	Non-reactivity	-0.29	0.15	-0.14*		
	Non-Judging	-0.14	0.12	-0.09		
	Importance/control thoughts (ICT)	of 0.09	0.10	0.09		
	Acting with awareness	-0.27	0.10	-0.19*	0.231	0.004
	Perfectionism/Certainty (PC)	-0.12	0.08	-0.16		
Step 9	Observation	0.35	0.12	0.24**		
	Describing	0.09	0.12	0.06		
	Responsibility/threat estimation (RT)	0.10	0.10	0.11		

* $p < 0.05$, ** $p < 0.01$

For Step 1, results indicated a significant association between **non-reactivity** and depression, $F(1, 203) = 4.83, p = 0.029, R^2 = 0.023$ (adjusted $R^2 = 0.018$). **In Step 2**, **non-reactivity** and **non-judging** correlated with depression, $F(2, 202) = 15.23, p = 0.000, R^2 = 0.131$ (adjusted $R^2 = 0.122$). **Non-judging** increased the variance explained in depression by 10.8%. **In Step 3**, the combination of non-reactivity, non-judging and importance/control of thoughts (ICT) correlated with depression, $F(3, 201) = 11.45, p = 0.00, R^2 = 0.146$ (adjusted $R^2 = 0.133$). Importance/control of thoughts (ICT) increased the variance explained in depression by 1.5%. **In Step 4**, the combination of non-reactivity, non-judging, importance/control of thoughts (ICT) and **acting with awareness** explained a statistically significant portion of the variance in depression, $F(4, 200) = 11.29, p = .000, R^2 = 0.184$ (adjusted $R^2 = 0.168$), with the addition, **acting with awareness** increased the variance explained in depression by 3.8%. **In Step 5**, the combination of non-reactivity, non-judging, importance/control of thoughts (ICT), **acting with awareness and perfectionism/certainty (PC)** correlated with depression, $F(5, 199) = 9.06, p = 0.00, R^2 = 0.185$ (adjusted $R^2 = 0.165$). **Perfectionism/certainty (PC)** increased the variance explained in depression by 0.1%. **In Step 6**, the combination of non-reactivity, non-judging, importance/control of thoughts (ICT), **Acting with awareness, perfectionism/certainty (PC) and observation** correlated with depression, $F(6, 198) = 9.59, p = 0.00, R^2 = 0.225$ (adjusted $R^2 = 0.202$). **Observation** increased the variance explained in depression by 4.0%. **In Step 7**, the combination of non-reactivity, non-judging, importance/control of thoughts (ICT), **acting with awareness, perfectionism/certainty (PC), observation and describing** correlated with

depression, $F(7, 197) = 8.29, p = 0.00, R^2 = 0.227$ (adjusted $R^2 = 0.200$). **Describing** increased the variance explained in depression by 0.2%. **In Step 8**, the combination of non-reactivity, non-judging, importance/control of thoughts (ICT), **acting with awareness, perfectionism/certainty (PC), observation, describing** and **responsibility/threat estimation (RT)** correlated with depression, $F(8, 196) = 7.37, p = 0.00, R^2 = 0.231$ (adjusted $R^2 = 0.200$). **Responsibility/threat estimation (RT)** increased the variance explained in depression by 0.4%.

Discussion And Recommendations:

Following the findings of the first hypothesis, the cognitive models that explain depression confirmed that negative thinking is not only accompanied by the symptoms of depression but it is also an earlier cause of depression. Regarding the ability of observing to predict depression, the study of [Mor and Winquist \(2002\)](#) emphasized that self-focused attention can be non-adaptive and this is what the results of the present study confirmed. The result of the observing dimension is related to that of non-reactivity which also predicted depression and this is supported by the study of [Rude, Wenzlaff et al. \(2002\)](#) which confirmed that people with depressive disorder tend to focus their attention on interesting and unpleasant information, interpret it negatively and build pessimistic beliefs upon it. Turning to the third dimension, i.e. acting with awareness, which predicted depression, it suggests that an individual focuses his/her complete attention on the task that he/she is performing at the moment without straying or having his/her mind wander in the future or the past. This result is consistent with what [Jamshidifar, Mohammadzadeh et al. \(2014\)](#) mentioned, as they assumed that the decrease in metacognitive awareness is related to depression and that the accessibility of metacognitive tendencies predicts depression relapses. This is consistent with the findings of [Raphiphatthana, Jose et al. \(2016\)](#), which showed that acting with awareness was the only mindfulness facet that predicted low levels of psychological symptoms, and it is also consistent with the findings of [Calvete, Gámez-Guadix et al. \(2017\)](#) which concluded that the dimension of acting with awareness predicted a decrease in non-suicidal self-injury. This result is consistent with the findings of [Soysa and Wilcomb \(2015\)](#) study which revealed the ability of acting with awareness and non-reactivity dimensions to predict the symptoms of depression. Regarding the second result of the second hypothesis which showed that the dimensions of describing and non-judging did not contribute to the prediction of depression, this result disagreed with most of the results reached by relevant studies. The findings of the study of [Alsadat Hosseini Ramaghani, Sadeghi et al. \(2017\)](#) pointed out that acting with awareness and non-judging have a joint role in social anxiety disorder and generalized anxiety disorder. The results of the second hypothesis also disagree with those of [Cash and Whittingham \(2010\)](#) which showed that high scores on the dimensions of acting with awareness and non-judging predicted depression. The findings of the current study are consistent with what most previous studies ([Brown & Ryan, 2003](#); [Duncan, 2007](#); [Kudesia, 2019](#); [Masuda & Tully, 2012](#); [Pratscher, Rose et al., 2018](#); [Pratscher, Wood et al., 2019](#); [Rupperecht, Paulus et al., 2017](#)) have confirmed about mindfulness and its role in improving cognitive flexibility (meta-cognitive insight) and enhancing mental health and mental well-being. They are also consistent with the results of the study conducted by [Bostanov, Ohlrogge et al. \(2018\)](#) which pointed out that mindfulness predicted well-being and with the study of [Baer, Smith et al. \(2004\)](#) which showed a positive correlation between mindfulness and adaptive properties such as openness to experience and emotional intelligence and negative correlation with non-adaptive variables such as thought suppression and experiential avoidance. The findings are also consistent with those of [Thompson and Waltz \(2007\)](#) which showed that mindfulness correlated positively with agreeableness and conscientiousness and negatively with neuroticism. Moreover, the findings of the present study are consistent with those of [Yeung \(2013\)](#) which showed an inverse correlation between mindfulness and anxiety and the symptoms of depression and a positive correlation with life satisfaction. Regarding the results of the second hypothesis of the present study which assumed that obsessional beliefs can predict depression, [Ju, Wang et al. \(2020\)](#) mentions that Beck's cognitive model confirms that depression is caused by distorted thinking rather than emotion. According to this model, the persistence and severity of depression is attributed to depressive schemas and automatic and maladaptive negative beliefs. Research results indicate the increase of neurocicism, non-adaptive perfectionism, personal sensitivity, functionally disturbed beliefs and automatic thoughts during the phase of depression ([Mathew, Sudhir et al., 2014](#)). The findings of the present study are consistent with those of [Teller \(2017\)](#) which indicate that obsessional beliefs is

considered one of the causes of the severity and persistence of depression. It also agrees with the findings of the study of [Puşuroğlu, Bahçeci et al. \(2017\)](#) which suggest that there is a higher level of obsessional beliefs in people with depressive disorder. Moreover, the findings are consistent with those of [Smith, Saklofske et al. \(2017\)](#) which concluded that non-adaptive perfectionism (worrying too much about mistakes and doubting actions) predicted depression and anxiety. The findings also agree with those of [McEvoy and Mahoney \(2011\)](#) which confirmed the increase in evidence that view the intolerance of uncertainty as an important factor in diagnosing the causes of anxiety disorder and its persistence. The findings of the present study showed that responsibility/threat overestimation beliefs have not contributed to the prediction of depression and this result disagrees with the findings of [Pozza and Dèttore \(2014\)](#) study which indicates that responsibility predicted depression symptoms. The researcher believes that there is a unanimity between the findings of the studies and the interpretations of the cognitive models that non-adaptive perfectionism predicts depression. Moreover, the findings of the studies unanimously agree that the beliefs of responsibility predict obsessive-compulsive disorder as well as threat overestimation and threat. The result of the second hypothesis agrees with that of [Flett, Coulter et al. \(2011\)](#); [Masuda and Tully \(2012\)](#); [O'Connor, Rasmussen et al. \(2010\)](#); [Smith, Saklofske et al. \(2017\)](#); [Solimanifar, Rezaei et al. \(2015\)](#); [Wang and Zhang \(2017\)](#); [Yoon and Lau \(2008\)](#) which showed that non-adaptive perfectionism (responsibility, threat overestimation/threat and perfectionism/certainty) correlated with mental disorders and predicted depression. Therapists usually seek to change the form of non-adaptive perfectionism thoughts because such thoughts predict future depression ([Ferrari, Yap et al., 2018](#)).

The results of the third hypothesis displayed an arrangement of the eight variables according to their contribution to the prediction of depression symptoms as follows: non-reactivity, non-judging, self-focused observing, acting with awareness, control of thoughts/importance, threat overestimation/responsibility, describing and perfectionism/certainty. The researcher notes that, in the outcome of this hypothesis, the processes by which the individual deals with his/her thoughts are issued ahead of cognitive and metacognitive variables which predict the symptoms of depression such as (non-reactivity to inner experience, non-judging of inner experience, observing and acting with awareness). These variables are the four mindfulness facets which clinical psychologists and educational advisors rely on as a reliable and successful mechanism in preventing many mental disorders, especially depressive disorder.

The researcher sees that, throughout history, numerous theories have emerged to explain the causes of depressive disorder and its increasing prevalence, particularly among adolescents. Psychological theories tried to explain the causes of depression depending on the self, behavioral models and cognitive models such as the self-control model, psychoanalysis, stressful life events, the interpersonal theory and sociocultural models ([Bernaras, Jaureguizar et al., 2019](#)). Researchers assumed that cognitive theories are one way to understand development differences and the causes of depression and its persistence ([Lakdawalla, Hankin et al., 2007](#)). These cognitive models shed light on the fact that depression is caused by distorted thinking. According to Beck's model, the persistence and severity of depression is due to depressive self-schemas and maladaptive beliefs/assumptions ([Ju, Wang et al., 2020](#)). Most of the studies that aimed at revealing the causes of depression focused on three basic cognitive theories; namely, Beck Depression Scale (BDI-II), Hopelessness Theory and Response Styles Theory. These theories revealed the cognitive vulnerability factors, dysfunctional attitudes, negative cognitive styles and ruminative response style which contribute to the emergence and persistence of depression. These cognitive theories share the general premise which states that the ways in which individuals deal with, interpret and remember negative life events contribute to their suffering from depression ([Lakdawalla, Hankin et al., 2007](#)).

The current study recommends that many researchers and providers of counseling and treatment services for adolescents with mental disorders, especially depressive disorder, keep up with the results of recent studies in this regard and abandon many traditional models and strategies that were proved by studies to lead to opposite results, worsen the disorder and contribute to its continuity such as the strategy of disruption, stopping thoughts and the so-called dialectical or Socratic behavioral therapy. The study recommends adopting the mindfulness facets in their planning and preventive and curative interventions.

Acknowledgements

The researcher thanks the Scientific Research Deanship at the University of Prince Sattam bin Abdulaziz for continuously encouraging researchers to publish their research in international journals and for providing training courses with major international publishing companies in order to convey these experiences. The researcher also thanks the Administration of Assuit University for encouraging researchers to publish their research in international journals and rewarding them with incentives.

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