

The Mediating Role of Self-Compassion in the Relationship of Mindfulness with Depressive Symptoms

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The Study has been conducted to explore the relationship between mindfulness and depressive symptoms with mediating variable of Self-Compassion. The Objective of this study determines how mindfulness predicts depressive symptoms by taking account of self-compassion. The sample of three hundred and fifty 350 students was taken from Bahudin Zakriya university, Multan (Punjab, Pakistan). The results revealed that mindfulness and self-compassion have significant negative correlation with depressive symptoms. Moreover, self-compassion has strongly predicted depressive symptoms than mindfulness through multiple regression analysis and it has more mediating effect than mindfulness through mediation analysis. t-test and ANOVA shows that statistical difference found on depressive symptoms regarding age and education.

Keywords. Mindfulness, depressive symptoms, Self-Compassion, Students

The basis of Self-Compassion from Buddhist Philosophy like mindfulness. It is relatively new thought in the view of psychology (Neff, in press; Gilbert, 2005; Leary, Tate, Adam, Blatt, Allen, & Hancock, 2007). From Buddhist point of view, Firstly it defines compassion means kindness given to own selves as well as for others in sufferings (Salzberg, 1997).

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Compassion involves the desire to relieve from sufferings and find solutions of problems when experiencing the feelings of pain and trouble (Goetz, Keltner, & Simon-Thomas, 2010). Self Compassion is basically a feeling of considerate to self in spite having affliction, inadequacies as well as failures. It means being kind oneself without suppressing the pain when one's suffering in hardships and difficulty. Self-compassion also means inner compassion the same as love and gentleness ourselves in times of complexity (Neff, 2003a). Self Compassion consists in three interacting positive and negative division: Self consideration (individual has kindness with oneself rather than disapproving i.e. harsh Self judgment), Common humanity (be familiar with painful incidents are part of life instead cut off others by one's own failures i.e. Isolation), and mindfulness (being aware of present moment experience in hurdles rather becoming emotionally uncontrollable harsh i.e. Over identification). The positive end signifies vigorous and self-encouraging outlook while negative aspect indicates self-accusing and self-refusing attitude although occurrence of pain and failures (Neff 2003 a, b).

Self-Compassion in perspective of mindfulness and depressive symptoms

Self-compassionate people having mental potency seeing as pleasure, confidence, hopefulness and productive influence related to mental health (Neff, Rude, & Kirkpatrick, 2007). Moreover, insight, enthusiasm as well as personal accomplishment on the way to goal due to kind, gentle and warmth attitude of individual oneself in negative life experiences (Cetin, Akin, & Gunduz, 2008). The positive approach of self-compassion is a definite precursor of psychological well-being than negative approach of it because self-compassion act as an adaptive strategy to recognize feelings by attenuation of disappointing reactions as well as construct encouraging feeling and tenderness (Neff, Hsieh, & Dejitterat, 2005).

Positive self-compassion operates like a protector against worsening of depressive symptoms with the passage of time and the negative part of self-compassion is maladaptive dimension entails individual's in self-criticism, thought suppression, rumination and depression (Neff, 2003a,b; Neff, Rude, & Kirkpatrick, 2007). High self-criticism causes mental health problems as well as depression (Gilbert & Irons, 2005) because people who suffers in extreme self-criticism are isolated themselves experiencing feelings of unhappiness in time of

depression linked to self condemning reactions or negative self compassion (Gilbert & Procter,2006).These self judging or self condemning responses and distressing thoughts defeat or reduce by compassionate attitude otherwise stressful thoughts direct towards depressive symptoms over time. Leary et al. (2007) recommends self empathetic people might experience less harmful affects not as much depressed and anxious because they ruminate less about negative events. The study presents high self-compassion reduces symptoms of depression and criticism regarding self (Neff & Vonk, 2009).

Self-compassion and mindfulness

Self-compassion and mindfulness are closely related to each other because literature shows both concepts are associated with many aspects of welfare (Keng et al., 2011; Macbeth & Gumley, 2012). The individual's sense of mindfulness involving attention takes place in moment of awareness (Kabat-Zinn, 2003) with an attitude of warm and kindness (Marlatt & Kristeller 1999).

There are also distinctions between mindfulness and self-compassion. Mindfulness detects happy, sad and neutral experiences in a way of nonjudgmental present moment awareness. Moreover, it is a mode concerning inner experience of present moment as it happens while self-compassion is focused on sufferings, painful and negative dealings particularly with affectionate responses and being warm to free from sufferings (Germer, 2009).Self-kindness reduces severity or threats of negative painful thoughts by maintaining of mindfulness.

Self-compassion and psychological health

An increasing body of research shows there is relationship between self-compassion trait and mental health (Neff, 2003a). Literature indicates self-compassionate individuals have less self criticism therefore less anxiety as well as depression links self-compassion because excessive self criticism causes depression and anxiety(Blatt,1995).In a study of mock job interview the individuals are asked to write their greatest weakness, high Self-compassion individuals used language in plural pronouns such as “we” than singular pronoun “I” and making social reference with people and less thought-out as compared to low compassionate individuals (Raes,2010). People deals negative life events (Leary et al., 2007) in a

quiet way, experience positive emotions (Hollis-walker & Colosimo, 2011; Neff et al., 2007) having strength to deal negative ones with happy state of mind.

Self-compassion occurs as a strategy to cope difficult emotional experience and early childhood traumas. Whenever people suffer in traumas be capable to deal offensive actions with prolific way(Vettese et al.,2011). Neff & Beretvas (2012) proposed more self-compassionate individuals are emotionally connected to their partners, being supportive with them, less detached and control their verbal and physical aggression because of social support (Crocker & Canevello, 2008) and empathetic feeling for others. Furthermore, self-compassion enables the people to accept negative and positive aspects of traits as compared to self esteem or self worth (just evaluate ourselves positively) (Longe et al.,2009).

Self-compassion considered being good for healthy functioning and more stability in self-worth feelings (Neff & Vonk, 2009). A study suggests self-compassionate people not judge themselves and others, no superior feelings as well as not worrying or annoying. Findings showed low self-rumination, social comparison, public self consciousness, anger, sadness, humiliation and improved emotional stability related to high self-compassion (Leary et al., 2007).

Objectives

- To examine the relationship between mindfulness, depressive symptoms and Self-Compassion.
- To estimate the mediating effect of self-compassion between mindfulness and depressive symptoms.
- To probe into the differences on demographic variables at study variables.

Hypotheses

1. There will be a significant relationship among mindfulness, self-compassion and depressive symptoms.
2. Mindfulness and self-compassion will significantly predict depressive symptoms.
3. Self-Compassion will mediate the relation between mindfulness and depressive symptoms.

Method

Participants

The sample consisted of three hundred and fifty (350) University students with age range of 19-24. All participants were bilingual because they understand English and Urdu language. So participants screened those who don't understand the target language they didn't include in the study. The Selected participants were two hundred and twenty nine (249) females and one hundred and twenty one (121) males. The participants were approached conveniently from different departments of Bahauddin Zakariya University Multan.

Measures

These measures were used specified here.

1. Five Facet Mindfulness Questionnaire
2. Self-Compassion Scale
3. Symptom checklist revised (SCL-90R)

Five Facet Mindfulness Questionnaire A Self-report instrument seeing that mindfulness FFMQ developed by Baer et al. (2006) consisting of 39 items. The items of scale contain five points Likert type scale array (1 shows never true, 5 represents always true). There are five basic forms designed to determine skills of mindfulness such as observing, describing, acting with awareness, non-judging experience and non reactivity to inner experience. The scale revealed excellent construct validity as well as reliable with alpha coefficient is .80 for total scale.

Scoring Information The Scoring keys consist of five subscale items; The item information of subscales are recognized as 1, 6, 11, 15, 20, 26, 31,36 OBSERVING, 2,7,12R, 16R, 22R,27,32 DESCRIBING, 5R, 8R, 13R, 18R, 23R, 28R, 34R, 38R ACT WITH AWARENESS, 3R, 10R, 14R, 17R, 25R, 30R, 35R, 39R furthermore 4, 9, 19, 21, 24, 29, 33 NON REACTING items. All reverse items change an answer of 1-5, 2-4, 3-3, 4-2 and 5 to 1. After appropriate reversal of items, values for remaining items remain the same and then sum all the values for total no. of items. Higher values reflect greater skills of mindfulness.

Self-Compassion Scale The scale of Self-compassion urbanized by Neff (2003) consists of six subscales of 26 items with positive and negative items. Three subscales with positive items contain self-kindness, common humanity and mindfulness. Three subscales with negative items have self-judgment, isolation and over-identification. Responses on Likert five points scale array as (1 almost never to 5 almost always). High positive as well as low negative items of self-compassion means high self-compassion. SCS revealed excellent internal reliability along with chronbach alpha for the total subscale is .70

Scoring Keys Positive items of SCS are 5, 12, 19, 23, 26 contain self-kindness, 1, 8, 11, 16, and 21 include in self-judgment as well as 3, 7, 10, and 15 consist of common humanity. Moreover, isolation (4, 13, 18, and 25), mindfulness (9, 14, 17, 22) plus over-identification (2, 6, 20, and 24) consisting of negative items of SCS. Total score of SCS is calculated by mean on response items. To obtain scores, firstly reverse the values of negative subscale items, for these items change an answer of 1-5, 2-4, 3-3, 4-2 and 5 to 1. On the other hand the values for the remaining items remain the same then add the values for all 26 items and compute a total mean.

Symptom checklist revised (SCL-90R) Self-report checklist SCL-90-R developed by Derogatis, Lipman, & Covi (1973) deals mental complexities consist of 90 items with eight subscales. Subscale depression has 13 items. Each symptom of depression frequently take place all through previous seven days respond on five points Likert type scale sort as 0 to 4 (0 shows not at all as well as 4 specifies very much). It has shown good psychometric properties. In nearby study, reliability of subscale depression is generally high with chronbach's alpha is .89.

Scoring information 5,14,15,20,22,26,29,30,31,32,54,71 and 79 are 13 items of depressive subscale dimension. The items are relatively simple to score by hand; raw scores are calculated by dividing the sum of scores by the numbers of items in the dimension. Overall Global severity index is calculated by summing scores of nine dimensions and dividing by the total no. of response. To obtain the subscale score of depressive symptoms items calculated by mean score on respond items.

Procedure

The Present research has been conducted on University students, the questionnaire executed at the start of the lecture and students have fifteen minutes to complete the questionnaires. The sample consisted on those participants who are bilingual because they filled the form appropriately due to understanding of language. Those students who don't understand the English they didn't include in the study and screened the sample. Then the booklet given to the participants along with informed consent, demographic variables sheet and administered the questionnaires Mindfulness (FFMQ), Self-Compassion (SCS) as well as subscale depression (SCL-90R).The participants informed all information would be kept confidential then informed consent acquired from all the individuals who participated in the study. Afterward SPSS (Statistical package for Social Sciences) edition 22 used for expressive and inferential numerical investigation of the information.

Results

Pearson product correlation was utilized to assess the relationship among mindfulness, depressive symptoms and self-compassion. Multiple linear regression and Andrew macro Process was calculated to examine the mediating role of self-compassion between mindfulness and depressive symptoms.

Table 1

Pearson Product Moment Correlations among Variables of Mindfulness, Rumination, Self-Compassion and Depressive Symptoms. (N=350)

Variables	1	2	3	M	SD
1 Mindfulness (FFMQ)	-	.64**	-.24**	3.00	.47
2 Self-Compassion (SCS)			-.37**	1.7	.26
3 Depression (SCL-90)				3.13	.84

*p<0.05, **p<0.01

Table 1 indicates Pearson's product moment correlations among variables of Mindfulness, Rumination, Self-Compassion and depression used in the study. FFMQ significant negatively correlated with SCL-90 ($p < 0.01$, $r = -.24$) and significant positively correlated with mediator SCS ($p < 0.01$, $r = .64$). The proposed mediator self-compassion also negatively correlated significantly with SCL-90 (SCS $p < 0.01$, $r = -.379$) respectively. Moreover, This table shows significant results among all variables in the study and acceptance of hypothesis.

Table 2

Regression Analysis of Mindfulness and Self-Compassion Predict Depressive symptoms(N=350)

Predictors	B	SE	Beta	t	p
Constant	72.35	6.00		12.04	.001
(FFMQ)	-0.09	0.02	-0.17	-3.58	.001
(SCS)	-0.52	0.74	-0.34	-6.98	.001

Note. $R^2 = .175$, Adjusted $R^2 = .170$, $F(2,347) = 36.712$, * p -value < 0.05 , *** p -value < 0.001

Table 2 represents the regression analysis in which depressive symptoms act as a dependent variable that depends on mindfulness and self-compassion. Table 2 shows coefficient of multiple determination R^2 (.175) and adjusted R^2 (.170) which indicate the mindfulness and self-compassion accounted for almost 17.5% of variance in depressive symptoms at $F(2,347) = 36.712$, $p < 0.05$. Moreover, table represents a significant result that shows high mindfulness and greater self-compassion predicts less depressive symptoms. It means mindfulness and self-compassion both are inversely related to depressive symptoms. The statistical significant with self-compassion having higher Beta value ($\beta = -.347$, $p < 0.05$) than mindfulness ($\beta = -.17$).

Table 3

Regression Analysis by Process Macro showing Self-compassion as a mediator between mindfulness and depressive symptoms (N=350)

Paths		Coefficient	SE	t	p
Path a (IV-MV)	Constant	67.75	2.35	28.78	.001
	FFMQ	0.06	0.01	3.49	.001
Path b (MV-DV)	Constant	72.35	6	12.04	.001
	SCS	-0.51	0.07	-6.98	.001
Path c'(IV-DV)	FFMQ	-0.98	0.02	-3.58	.004
Path c(IV-DV)	Constant	37.14	3.48	10.66	.001
	FFMQ	-0.13	0.02	-4.65	.001
Indirect effect of x on y	Effect		SE	CI LL	CI UL
	SCS	-0.03	0.03	-0.12	-0.001
Normal theory tests for indirect effect					
	Effect		SE	z	p
	-0.03		0.01	-3.10	.001

Note: *p-value<0.05, FFMQ= Mindfulness; SCS= Self-Compassion

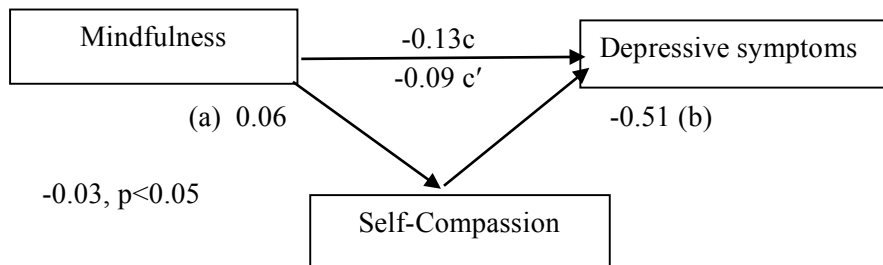


Figure 1

Table 3 shows the mediation analysis of PROCESS macro for SPSS in which path a is significant with positive relation and path b and is also significant with inverse relation and more effect on dependent variable than independent variable on path c and c'. The indirect mediating effect of self-compassion is stronger than independent variable on dependent variable.

Table 4

Mean, Standard Deviation and t value of Mindfulness, Rumination, Self-Compassion and Depressive Symptoms among Males and Females (N=350)

Variables	Group	N	M	SD	t	p	Cohen's d
FFMQ	Male	121	118.8	10.54	-.23	.78	0.02
	Female	229	119.3	21.75			
SCS	Male	121	75.9	8.05	.04	.96	0.01
	Female	229	75.8	6.22			
DS	Male	121	22.1	9.61	1.3	.20	0.14
	Female	229	20.6	10.70			

*Note: df= 348, *p-value<0.05, FFMQ= Mindfulness; SCS= Self-Compassion; DS= Depressive Symptoms*

Table 4 displays no significant differences on two groups of gender (male and female). It means that both groups are equal scores in mean difference at all variables in the study

Table 5

Mean Standard Deviation and t value of Mindfulness, Rumination, Self-compassion and Depressive Symptoms in Educational Group of Demographic Variables (N=350)

Variables	Group	N	M	SD	t	p	Cohen's d
FFMQ	PG	217	118.94	22.56	-.31	.71	0.03
	M.Phil	133	119.58	9.25			
SCS	PG	217	75.9	7.51	.04	.96	0.01
	M.Phil	133	75.8	5.80			
DS	PG	217	22.5	9.63	3.41	.001	0.36
	M.Phil	133	18.76	11.04			

*Note: df= 348 , *p-value<0.05, FFMQ= Mindfulness; SCS= Self-Compassion; DS= Depressive Symptoms*

Table 5 displays no significant differences on two groups of education (BS and M.SC) in mindfulness and self-compassion variables except statistical difference in depressive symptoms and rumination at both educational level of BS / M.sc and M. phil.

Table 6

One-way ANOVA in Age Groups on Study Variables of Mindfulness, Rumination, self-Compassion and Depressive Symptoms (N=350)

Variables	Source of variation	SS	D f	MS	F	p
FFMQ	Between group	.06	2	.03	.13	.87
	Within group	80.29	347	231		
	Total	80.35	349			
SCS	Between group	.04	2	.02	.31	.72
	Within group	25.19	347	.07		
	Total	25.24	349			
DS	Between group	9.42	2	4.71	6.78	.001
	Within group	240.73	347	.69		
	Total	250.15	349			

*Note. df=347, * p<0.05; FFMQ= Mindfulness; SCS= Self-Compassion; DS= Depressive Symptoms*

Table 6 shows no statistical difference among three age groups at mindfulness, rumination and self compassion variables except in depressive symptoms i.e. statistically difference in three age groups.

Discussion

The Current research carried out to investigate relationship among mindfulness, depressive symptoms, and self-compassion. The present research was conducted to see the mediating role of self-compassion in relationship of mindfulness with depressive symptoms among University students.

The first aim in this research was to utilize mindfulness; self-compassion and depressive symptoms examine their association in the sample of University students. It was hypothesized that there would be

significant relationship among mindfulness, depressive symptoms and self-compassion. The results through statistical analysis of Pearson Product moment correlation show significant relationship among all variables of the study in table1. It revealed that mindfulness is significantly negative correlation with depressive symptoms and it is significant positively correlated with self-compassion. The proposed self-compassion is significant negatively correlated with depressive symptoms. There are many researches that fully support this thought and reported in previous study demonstrates that mindfulness boost self-compassion, optimistic warmth and well-being etc. as well as reduces the feelings of anger, pessimism, rumination and depression (Breslin et al., 2002; Shapiro et al., 2008).

It was hypothesized mindfulness and self-compassion predicted depressive symptoms. Findings of the hypothesis revealed the significant result in table 2 in which high mindfulness and high self-compassion predicted less depressive symptoms. It means both mindfulness and self-compassion predicted inversely correlated to depressive symptoms. Self-compassion and mindfulness are closely related to each other because literature shows that these both concepts are associated with many aspects of healthy psychological functioning and well being (Keng et al., 2011.) It accepts the hypothesis.

The objective and hypothesis of present study supposed that self-compassion will mediate relationship between mindfulness and depressive symptoms. The findings show the significant results that are consistent with research hypothesis and show that mediation occurred. So, the hypothesis is proved by the mediation analysis that self-compassion indicated significant mediating effects in relationship of mindfulness with depressive symptoms. Although Self-compassion is one of the other key part to reduce depressive symptoms (Kreiger et al., 2013; kyuken & Raes et al., 2010). There are many evidences indicate that mindfulness and Self-Compassion decreases psychological distress such as depression, rumination and anxiety etc. and positively correlated with psychological adjustment and healthy relations with others with the help of emotion regulation strategies that alter distressing thoughts and behaviors due to mindfulness (recognizing of one's experience develop insight into the understanding of emotion) and freeing of oneself from distracting ideas (Ekman, Davidson, Richman, & Wallac, 2005) and further study suggest self compassion is linked to optimistic psychological outcomes with less depression. (Raes, 2011).

There is a mediating role of self compassion in the mechanism of mindfulness as an enabling the individuals to respond with kindness or compassion towards oneself rather than feeling hurt, blaming and self criticizing reactions by allowing of non judgmental awareness or increasing mindfulness (Hollis-Walker& Colosimo, 2011). Self compassion has positive relationship with mindfulness (Hollis-walker& Colosimo,2011; Van Dam et al., 2011) and negative relation with depressive symptoms (Neff,Rude,&Kirkpatrick,2007; Raes,2011;Van Dam et al.,2011;MacBeth&Gumley,2012).

With regard to the hypothesis explored regarding the differences on mindfulness, self-compassion and depressive symptoms in relation to demographic variables through t-test and ANOVA. t-test in table 4 displays no statistically significant differences on two groups of gender (male and female) in study variables of mindfulness, self-compassion and depressive symptoms. It means that both groups are equal scores in mean difference at all variables in the study. The individual's differences in trait mindfulness due to predisposition and environmental circumstances (Davidson, 2010) and also differences in genetic and environmental influences on mindfulness between male and female but in this study generally no difference found on gender on these variables.

It was further investigated no statistically significant difference on two groups of education on mindfulness and self-compassion variables except statistical difference found in depressive symptoms at both educational level of BS / M.Sc and M.Phil through t-test in table 12. One way analysis (ANOVA) and in table 6 shows that there is no statistically differences at three groups of age on variables of mindfulness and self compassion except variable of depressive symptoms showed statistically difference in three age groups and proved hypothesis of study is accepted by mean difference of multiple comparison on this variable than others.

Conclusion

In the present study, here is a substantial relationship among mindfulness, self-compassion as well as depressive symptoms. Moreover the present study explored mediating role of self-compassion in relationship of mindfulness with depressive symptoms. The result findings clearly explain the full mediation among the study variables.

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