

Self-Criticism, Attribution Style, Hope, and Depressive Symptoms in Adolescents

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Abstract

Background. Mental health problems are most commonly underreported or kept undiagnosed in the developing countries. Manifestation of such issues during adolescence could result in long-term adverse consequences. Thus, present study attempted to explore predictive role of self-criticism, attribution style, and hope in depressive symptoms in adolescents.

Method. A sample of 290 students (145 male & 145 female; aged 11-23 years) was recruited from different schools and colleges by using convenient sampling technique. The Forms of Self-Criticizing/ Self-reassuring Scale (FSCRS) (Gilbert et al., 2004), The Measure of Attributional Style (Kwon & Whisman, 1992), Psychological Capital Questionnaire (Luthans et al., 2007), and Depression, Anxiety, Stress Scale (Lovibond & Lovibond, 1995) were used to measure self-criticism, attribution style, hope, and depressive symptoms.

Findings. Results revealed a significant positive relationship between self-criticism and depression while significant negative association was found between depression and hope. Furthermore, self-criticism and hope significantly predicted depressive symptoms in adolescents. Comparison of family systems showed significant differences on hated-self, attribution style, hope, and depressive symptoms. Results revealed that individuals belonging to joint family system experience more hated-self, depressive symptoms, and attribute to internal causes while individuals belonging to nuclear family system experience more hope and attribute to external causes.

Conclusion. The study findings highlight the role of self-criticism, attribution style, hope, and depressive symptoms in adolescents. Thus, present study may also help in evaluating and eliminating risks associated with depressive symptoms. Teachers/parents and caregivers working with adolescents may also benefit from the findings of the research. Implications of the findings are discussed.

Keywords. *Self-criticism, attribution style, hope, depressive symptoms, Pakistan.*



Introduction

Mental health is a key aspect of health. Specifically depressive symptoms are serious concerns in mental illness in teenagers (Reynolds, 1994). In teenage, individuals come across thousands of events that may affect them and their evaluation of themselves and others. These events may be pleasant or undesirable/unpleasant. Particularly unpleasant events experienced by teenagers may lead them to avoidance in daily activities, hindrance in enjoying life and develop low moods and in extreme cases, depression. There are a number of risk factors that may socially and individually pressurize an adolescent such as hormonal changes, genetics, and environment (Thapar et al., 2012). Hence, teenager undergoes a number of factors which may give rise to challenges in developing mental health problems. Additionally mere prone to socialization through technologies and fake id's teenagers may not develop skills to solve their problems adequately and may have less adaptive problem-solving behavior. This may and does sometimes result in a disproportionately self-critical personality and hopelessness in an individual. During the age of teenage, individuals blame themselves for disappointments and devalue themselves. This may develop the tendency for being self-critical (Panayotova, 2016). Thus negative views about self, negative views about others, and hopelessness may directly influence an individual's mental health.

The severity of depressive symptoms is usually judged by the criteria given in DSM V; it characterizes depression by lack of problem-solving and motivation in daily activities, feelings of worthlessness, hopelessness, isolation, difficulty in retaining information, loss of energy, and lack of interest in all activities of life (Ranttila & Shrestha, 2011); therefore any individual who may indicate difficulties in these areas of life for minimum two weeks warrants a diagnosis of depression (Bennett, 2011). Depression is a mental disorder that is commonly diagnosed in adolescents (WHO, 2018); the reason being the different developmental milestones that the adolescents have to deal with. Most overcome their depressive tendencies, but others may not recover well. For these individuals, depression in adolescence leads to serious mental disabilities in adulthood. Individuals who may develop depression in adolescence may have varying levels of depression.

They may have low levels of depression or they may have major depressive tendencies which sometimes lead to suicidal attempts (Reynolds, 1994). There is also a greater tendency in mental health professionals to miss the symptoms of depression in adolescents and children (Son & Kirchner, 2000). Previous research has called for research that indicates symptoms that may help in the identification of depressive symptoms in adolescents.

A systematic review conducted by Khan et al. (2021) revealed that pooled prevalence rate of depressive symptoms was 42.66% among university students in Pakistan. A meta-analysis conducted in China reported 24.3% pooled prevalence of depressive symptoms (Wartberg et al., 2018) while study conducted in US suggested 18% of depressive symptoms among 9863 screened adolescents (Saluja et al., 2004). In addition, literature suggests that substance use, family history of depression (Khan et al., 2006), academic failure, poor peer relationships (Muhil, 2015) and female gender (Thirunavukarasu, 2015) are major risk factors for depressive symptoms during adolescence. On the basis of levels of depression, Naveeda and Aftab (2021) illustrated that boys with lower depressive symptoms scored higher on hated-self and internal attribution while girls scored higher on hope and generality however, non-significant results were reported for adolescents with more depressive symptoms.

Self-criticism refers to an individual's ability to see one's own perceived flaws (Panayotova, 2016). The symptoms of self-criticism include feelings of shame, worthlessness, dishonor, shrink, self-devaluing, and self-blaming (Tangney et al., 2007). According to Starrs et al. (2015) the ability of pessimistic thoughts about self mainly causes mood, anxiety, eating, and other disorders. Children are most prone to develop a sense of self-criticism due to parenting styles such as restrictive environment, less warmth, and unnecessary rules (Sachs-Erricson et al., 2006). In psychiatric patients, it is observed that exposure to stress and negative life experiences leads to self-blame and inferiority (Kannan & Levitt, 2013). Additionally self-critical psychiatric patients also experience psychological problems such as anxiety, substance abuse, personality disorders, and suicide (Kannan & Levitt, 2013).

Therefore, it is vivid that self-critical individuals experiencing highly stressful events are more likely to develop post-traumatic stress disorder (Harman & Lee, 2010).

Previous studies explored the significant positive relationship between self-criticism and depression (Luyten et al., 2007; Mongrain & Leather, 2006; Petrocchi et al., 2018). Likewise, Kopala-Sibley et al. (2015) investigated the function of events related to an individual's self-definition and relatedness in the formation of personality traits (self-criticism & dependency) and also its association in further development of depressive and anxiety symptoms. Findings revealed significant relation between self-definitional events and self-criticism that directly predicted an increase in depressive symptoms. However, results show a significant relationship between relatedness events and dependency but there was non-significant relation between dependency and depressive symptoms. Another research concluded that the association between childhood abuse from parents verbally and depression is mediated by self-criticism in late adolescence (Campos et al., 2010). It is clear from past content that depression and self-criticism play a direct relationship, self-silencing on the other side has also proved to be an important role in depression and self-criticism that causes harm to the self-esteem and identity of an individual (Rajabi et al., 2015).

Heider (1958) was the founder of attributional theory and his coworkers defined attribution as "the way of individual to describe everyday event" (Myers, 2010 p.104). Attribution is a study of how the social perceiver utilizes information to explain the events. It involves a type of information being gathered and the way it is combined to shape a causal judgment (Fiske & Taylor, 1991). Moreover, negative or depressive attributional style is defined as an individual's ability to attribute negative events to internal causes. However, attributing positive events to external causes such as fortune is known as positive attribution (Abramson et al., 1978). Studies have proved that negative attribution has a significant relation with depressive symptoms (Alloy et al., 2004; Alloy, 2000; Joiner, 2000). Additionally, Seligman and his co-workers found that negative attribution of events (depressogenic attributional style) to internal, stable, and global factors is directly related to depression in adults (Seligman et al., 1979) and children (Seligman et al., 1984).

According to study individuals possessing negative attributing styles had high levels of depression which was inversely related to the quality of their friendship. In adolescents increased level of loneliness with attributing styles was due to the extent of their friends' level of betrayal. Findings of the study indicate that high intensity of negative affect is associated with a lack of social relationships (Grove et al., 2016; Holmes et al., 2012; Whitehouse et al., 2009).

Hope is defined as a combination of cognition, agency, and pathways. Cognitions include conscious thinking about future aims; agency means the level of motivation to achieve those goals and pathways involve ways to achieve future goals (Synder et al., 1991). Hope is a sum of mental plans and determination of an individual which assists in attaining purposes (Synder, 1994). It is a personality trait and a changeable state of mind. However, any setback and major loss can descend an individual into hopelessness (Allen, 2008). Synder (1994) suggested that hope is not an emotion but it involves cognition, a motivational and dynamic process. In the literature of positive psychology, hope has an influential role (Peterson & Seligman, 1984). It is known as character strength (Cotton et al., 2009). Hope plays an essential role in a successful transition from adolescence to satisfying adulthood (Shorey et al., 2003). In youth, the key to psychological strength is hope (Valle et al., 2004). Moreover, studies suggested that hope is negatively associated with the level of depression (Du et al., 2016; Kwon, 2000; Schrank et al., 2014) and self-stigma (Schrank et al., 2014). In cancer patients, hope and optimism significantly predict depression and anxiety (Rajandram et al., 2011). It is found that individuals having low hope (but not optimism) were more likely to report different health issues including occurrence and severity of illness (Scioli et al., 1997). Moreover, it is vivid that hope influences the quality of life (Rustoen et al., 2010; Stevens et al., 2018). Past researches reported that hope is related with significantly associated with academics, physical and psychological health (Ciarrochi et al., 2007; Snyder & Shorey, 2002).

The etiology and maintenance of depression have been extensively provided by cognitive theories including Beck's theory of depression (Beck, 1987) and hopelessness theory of depression (Abramson et al., 1989).

These cognitive theories provide the understanding of distinctive cognitive vulnerabilities in the maintenance of depression. According to Beck's cognitive theory of depression, maladaptive schemas such as feelings of inadequacy, failure, worthlessness account for cognitive vulnerability.

It is suggested that negative schemas about self, others, and the future result in depressive symptoms. Furthermore, Beck suggests that depressogenic self-schemata remain inactive in the absence of stressful events while in the presence of a stressful event, depressogenic schemata influence cognitive processing (Lakdawalla et al., 2007). In addition, the hopelessness theory of depression posits the role of three types of negative inferences i.e., causal inferences (why an event occurred including stable and global attribution), inferred consequences (inferences about the consequence of event), and inferences about self (inferences regarding oneself in accordance to the event) in the development of hopelessness. Such inferences increase the likelihood of hopelessness which in turn results in depression (Lakdawalla et al., 2007).

In Pakistan, there is a lacking of large mental health surveys on adolescents' mental health (Khalid et al., 2018). However, small scales studies have been conducted to explore the prevalence and factors associated with depressive symptoms among adolescents (Khalid et al., 2018; Khan et al., 2021; Mehmood et al., 2014; Naveeda & Aftab, 2021; Prasle, 2012; Sarwat et al., 2009). Besides, there is a dire need for the exploration of the role of self-criticism, attribution style, and hope in depressive symptoms among Pakistani adolescents. Thus, the present research aimed at identifying the relationship between selected psychological constructs that pertain to the mental health of individuals and see if they are related to the presence or absence of depressive symptoms in adolescents. In the light of previous literature, study hypotheses include the following:

H1: There will be a significant positive correlation between self-criticism and depressive symptoms.

H2: Hope and generality attribution will be negatively associated with depressive symptoms among adolescents.

H3: Adolescents living in joint family system will score higher on depressive symptoms in comparison to adolescents living in nuclear family system.

H4: Self-criticism, attribution style, and hope will significantly predict depressive symptoms.

Method

Sample

A sample consisted of 290 adolescent students. The age of participants ranged from 11-24 years ($M = 17.28$, $SD = 2.86$). The sample was recruited from different colleges and universities in Rawalpindi and Islamabad. The institutions were both government and private. A convenient sampling technique was used for sample selection in the current study.

Instruments

The following scales (English versions) were used to assess the constructs of the study.

The Forms of Self-Criticizing/Attacking and Self-Reassuring Scale (FSCRS). FSCRS (Gilbert et al., 2004) was used to measure the tendency of self-criticism in adolescents. Two subscales i.e. inadequate-self and hated-self were used in the present study. Items are scored on a 5-point Likert scale. Response options range from 0 (*not at all like me*) to 4 (*extremely like me*) where a higher score shows more self-criticism. Cronbach alpha of the total items used was .67. Likewise, the analysis of the subscales revealed values of .54 for inadequate-self and .58 for hated-self.

The Measure of Attributing Styles (MAS). MAS (Kwon & Whisman, 1992) was used to assess the attributional style of adolescents. For the present research only ten scenarios related to academic settings were selected; attribution styles were classified as *Internality* and *generality* (Kwon & Whisman, 1992). Internality relates to the tendency of attributing causes to self and generality refers to the tendency of the sample to attribute causes to general causes. A score is generated for each participant for each of these dimensions; this is done by calculating the product of the count for each attribution style with the impact score for the scenarios. The test re-test reliability has been reported to be .82 (Kwon & Whisman, 1992).

Psychological Capital Questionnaire (PCQ). It is used for the assessment of psychological capital (Luthans et al., 2007). The scale comprised of 24 items using a 6-point Likert ranged from 1 (*strongly disagree*) to 6 (*strongly agree*).

PCQ measures four dimensions including hope, optimism, resilience, and self-efficacy. In the present study, the hope subscale is used to measure the level of hope in respondents. An alpha coefficient of .66 for hope was reported for the sample of the present study.

Depression, Anxiety and Stress Scale (DASS-21). DASS-21 was used to access the emotional states of an individual which includes depression, anxiety, and stress (Lovibond & Lovibond, 1995). The scale comprised of 21 items (7 items in each subscale) using a 4-point Likert type scale (0 = *did not apply to me at all*, 3 = *applied to me very much or most of the time*). In the present study depression subscale is used to assess depression in respondents. Cronbach's alpha for the depression subscale was .65 for the present study.

Procedure

The consent to participate in the study was taken from every participant. Rights of confidentiality were explained to the participants and made assured that the information gathered will be kept confidential and it would be used for research purpose only. Furthermore, study participants were informed that they have right to quit the study at any time. Individuals who were willing to participate in the research were provided with a booklet of questionnaires. The booklet consisted of instructions and items related to the constructs of the study. These instructions were read to the participants and they were encouraged to ask questions. Approximately 20 minutes were required to complete the entire questionnaire.

Results

The relationship between self-criticism, attribution style, hope, and depressive symptoms was determined by using Pearson Product Moment Correlation. Additionally, in the present study Linear Regression analysis was used to find the predictors of depressive symptoms.

Table 1

Pearson Correlation of Forms of Self-criticizing/Re-assuring Scale, Psychological Capital, Depression, Anxiety, Stress Scale (N = 290)

	1	2	3	4	5	6	7
1. Self-criticism	-	.87**	.79**	-.15**	.50**	-.00	-.14*
2. Inadequate-self		-	.41**	-.06	.38**	-.02	-.09
3. Hated-self			-	-.22**	.47**	.02	-.16**
4. Hope				-	-.26**	-.23**	.23**
5. Depression					-	.01	-.11
6. Internality						-	-.58**
7. Generality							-

** $p < .01$

Results in Table 1 show significant positive relationship between self-criticism inadequate-self, hated-self, and depression while a significant negative association between self-criticism, hope, and depression is also found. Additionally, hope shows a significant negative relationship with depression and internality. Likewise, hope also shows a significant positive relationship with generality. Table 1 depicts that depression has a non-significant association with internality and generality.

Table 2*Comparison of Family System on Self-criticism, Hope and Depressive Symptoms among Adolescents (N = 290)*

Variables	Joint (n = 142)		Nuclear (n = 148)		p	t	95%CI		Cohen's d
	M	SD	M	SD			LL	UL	
Self-criticism	38.7	7.40	37.35	9.19	.15	1.42	-.52	3.32	0.17
Inadequate-self	25.3	5.15	25.46	5.91	.91	-.11	-1.35	1.20	-0.01
Hated-self	13.3	3.95	11.89	4.69	.00	2.89	.47	2.47	0.34
Hope	22.7	5.38	25.22	5.30	.00	-4.22	-3.88	-1.4	-0.50
Depression	5.62	3.47	4.36	4.21	.00	2.78	.37	2.15	0.33
Internality	334.5	98.61	312.1	94.57	.04	1.97	311.8	334.2	1.85
Generality	214.9	135.2	247.1	133.5	.04	-2.04	215.7	246.9	-2.66

** $p < .01$

Results in table 2 depict that categories of the family system show significant differences in hated self (subscale of self-criticism), hope, and depression. The results illustrate that individuals belonging to the joint family system more experience depressive symptoms than individuals belonging to the nuclear family system. However, internality and generality are non-significantly associated with the family system.

Table 3*Comparison of Attribution Categories on Self-criticism, Hope and Depressive Symptoms (N = 290)*

Variables	Internal Attribution (n=166)		External Attribution (n=63)		Mixed styles (n=61)		F	i-j	MD (i-j)	95%CI	
	M	SD	M	SD	M	SD				LL	UL
	Self-criticism	38.1	7.59	37.5	9.18	38.3				9.59	.13
Hope	23.0	5.52	25.0	5.76	25.0	4.78	4.79***	1<2	-2.04*	23.2	24.5
Depression	5.20	3.88	4.63	4.19	4.72	3.69	.61	-	-	4.52	5.43

* $p < .05$, *** $p < .001$

The mean difference of categories of attribution such as individuals with internal, external, and undecided attribution styles is shown in table 3. Results illustrate the categories of attribution show significant differences in hope. The comparison of mean values of attribution groups shows that adolescents with external attribution ($M = 25.0$, $SD = 5.76$) show higher hope than internal attribution adolescents ($M = 23.0$, $SD = 5.52$).

Table 4*Regression Analysis of Study Variables on Depressive Symptoms (N = 290)*

Model	B	S.E.	β	<i>p</i>
(Constant)	.50	1.88		.78
Self-criticism	.16	.03	.23	.00
Hated-self	.30	.05	.34	.00
Hope	-.12	.03	-.17	.00
Internality	-.00	.00	-.03	.62
Generality	.00	.00	-.00	.90
R^2	.298			
ΔR^2	.285			
F	24.06**			

***p* < .01

Table 4 shows the results of linear regression analysis. The results indicate that self-criticism and hope are significant predictors while generality attribution is a non-significant predictor of depressive symptoms in adolescents. Results indicated a significant prediction accounting for 29% in depressive symptoms by self-criticism and hope in adolescents.

Discussion

The aim of the current research was to study the relationship between self-criticism, attribution style, hope, and depressive symptoms in adolescents. In line with previous literature the findings of the current study indicated that a positive relationship between self-criticism and depressive symptoms (Gilbert & Procter, 2006; Khan & Shahzad, 2015; Kopala et al., 2015; Zuroff et al., 2016). Self-criticism in children is developed due to parental styles i.e. restrictive environment, less warmth and love, and controlling unnecessarily (Sachs-Ericsson et al., 2006). Consequently, self-criticism tendencies in individuals may cause hostile behavior (Gilbert et al., 2016). Thus the findings of the present study would be useful for assessing the factors that may also affect the mental health of adolescents.

The study hypothesized that generality attribution is negatively correlated with depressive symptoms in adolescents. However, analysis shows a non-significant relationship between attribution generality and depressive symptoms. Results of the present contradict past literature. For instance, Kwon (1999) suggested that high generality attribution is linked with high depression in individuals. It means individuals who externally attribute to any situation may experience more depression.

The non-significance results of attribution style with depression might be due to cultural differences. It is also possible that a sample of study adolescents that include one category of early adolescents might not properly understand the questionnaire. Due to its hypothetical assumed scenarios, it might become tricky and difficult for students to answer properly. Lack of interest in respondents also affects the responses of the sample.

Results indicated that an increase in the level of hope would decrease the degree of depressive symptoms in adolescents. These results are consistent with the previous research findings (Arnau et al., 2007; Du et al., 2016; Peleg et al., 2009; Taysi et al., 2015). Hence, trait hope is linked with reduced depressive symptoms and alleviates the effects of bad experiences in an individual's life (Reff et al., 2005). It also influences coping, adaptive problem-solving, and goal persistence (Synder et al., 1991). It is vivid that individuals with a high level of hope may have positive outcome expectancies, optimism, problem-solving capabilities, and self-esteem (Snyder et al., 2002). Hope not only helps a person to attain his life goal but also improves his self-confidence and mental health; and enables a person to reach his full potential.

Study hypothesized that individual living in a joint family system experience more depressive symptoms than individuals living in a nuclear family system. It means the family system influences the mental health of adolescents. Study findings in line with previous research conducted in Pakistan. In Pakistan, the extended family system is the most common. In such family systems, individual autonomy is equivalent to group autonomy and the group is the complete family unit. People in Pakistan mainly follow the joint family system and live their life along with their folks (Naeem, 2005). Due to the complete size of the family, some of the family members do not get proper attention and required care. Current study confirms that living in a joint family has a significant relationship with depressive symptoms in adolescents. However, some studies suggested that living in a joint family system has a non-significant association with depression (Mumford et al., 1996; Luni et al., 2009)

Furthermore, another aim of the current study was to explore the prediction of depressive symptoms by self-criticism, attribution style, and hope. Self-criticism significantly predicted depressive symptoms among adolescents. Additionally, results also showed that hope negatively predicted depressive symptoms in adolescents. Literature suggests that individuals involved in self-blaming are at risk of developing depressive symptoms (Zuroff et al., 1990). Likewise, individuals experiencing a higher level of hope are less prone to depressive symptoms and may have better mental health (Wong & Lim, 2009). Thus, as an implication increasing the hope of adolescents may help enhance their better mental health.

Limitations and Suggestions

Even though the study has some strengths including some limitations is a part of the process. A primary limitation of the current study includes the use of cross-sectional study, however longitudinal is suggested. Future studies should observe the longitudinal effects of depression and attribution style in adolescents. From the current study, causal effects of depression are not observed however, the relationship between variables of the study was a major focus of research. Future researchers may conduct longitudinal studies to examine the causal factors of depression in adolescents.

One of the study limitations is the use of a self-reported questionnaire to examine depression attribution style and hope in an individual, which may be over-reported by respondents. However, accurate data can also be collected by interview-based and observational-based measures i.e. from parents and friends. Future studies should also consider parental marital status (married, divorced) and the attachment style of an individual to observe its effects on depressive symptoms, self-criticism, attribution style, and hope in adolescents. Future studies should also consider other stressors as family conflict and history of parents' health to examine depression and self-criticism in a sample of the study.

Data was collected from two cities of Pakistan by using a convenience sampling procedure. However, the sample is not a true representative of the whole population. So, the findings of the present study cannot be generalized. Sample should be taken nationwide (both rural and urban areas) to achieve valid and appropriate results in future studies.

Implications of the Study

Despite limitations, the current study has some implications in daily life.

Theoretical Implications. The findings of current study provide ground in the relationship between self-criticism, attribution style, hope, and depressive symptoms to comprehend the underlying factors in more detail. Furthermore, the present study can also be useful in the cross-sectional comparison of results.

Practical Implications. Current study findings can be used to develop intervention programs to minimize self-criticism and depression among adolescents. The findings can also be effective in clinical settings to manage adolescents' mental health to reduce depression and self-criticism.

Conclusion

The results of the study revealed that subscales of self-criticism are significantly related to depressive symptoms while hope is negatively correlated with depressive symptoms in adolescents. However, the dimension of attribution style (internality and generality) has non-significant relation with depression. The present study also explored those individuals living in a joint family system experience more depressive symptoms than individuals living in a nuclear family system.

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Competing Interests

The authors are well informed and declared no competing interests.

Ethical approval

The study was approved by the Ethics Committee (DPEC).

Consent for publication

Consent approved by the authors.

Availability of data and materials

Contact corresponding author.

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Authors' contribution

N contributed to the conceptualization of research design, literature review, data collection, and data analysis while RA supervised this study.

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