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Irrational Thinking and Stress among Adolescents: The Role of Self-Efficacy

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Abstract

Everyone on the planet knows what stress means. The purpose of this related study was to explore the relationship between adolescents' perceptions of their own worth and their acceptance of irrational thinkings and stress. 310 high school students in the Baghdad area participated in the study and provided data for this analysis. There were 177 females (57.1% of the sample) and 133 males (42.9% of the sample). The mean age of participants was 16.43 (SD = 1.20) years. We collected information from the Rosenberg Self-Efficacy Scale, the Perceived Stress Scale, and the Adolescent Irrational Thinking Scale. The data were tested using Bootstrap method, ordinary least squares regression, Pearson correlation analysis and descriptive statistics. The results show that self-efficacy has a strong mediating effect between irrational thinking and feelings of stress. Previous research findings are considered and recommendations are made for future mental health researchers and practitioners.

Keywords: Irrational thinking, Self-efficacy, stress, adolescents.

JEL Classification: I21

1. Introduction

At some point in life, everyone experiences the negative effects of stress. As stated in (Lazarus and Volkmann 1984), each of us faces stress and stress every day. According to the definition of "stress" by (Cohen, Kamarck, Mermelstein 1983), "stress" refers to "the extent to which a person faces stressful life situations".

Adolescence is a unique and important period of growth, but it also comes with a lot of turmoil and stress. This is an important transition period between childhood and adulthood. Adolescence is a time of deep helplessness and uncertainty. When a person is between the ages of 12 and 18, this undergo rapid changes both physically and mentally (Cicchetti & Rogosch, 2002; Santurc, 2016; Seiffge-Krenke, 1995). As Rudolph (2002) describes, a person's body, emotions and feelings, interactions with others, and environment all undergo significant changes during adolescence.

According to Havighurst (1953), adolescent development involves a variety of tasks, including but not limited to: coming to terms with a mature body and mind; coming to terms with one's career aspirations; gaining emotional and psychological independence from parents; developing healthy, mutually beneficial relationships with peers; regulate their own sexual behavior; adopt their own values; and demonstrate greater impulse control and behavioral maturity. Because of this, these changes and new responsibilities place a greater burden on adolescents than ever before.

2. Literature Review

According to Selye (1976), stress is "an individual's response to an objective stimulus requiring a change in his behavior, physical condition, or perception" (Selye, 1976, p. 17). In order to adapt or change one's behavior, a person must first take an internal inventory of one's strengths, weaknesses, coping strategies, and readiness to deal with environmental stressors (Lazarus & Folkman, 1984). Depression (Kercher & Rapee, 2009) and suicidal ideation (Zhang, Wang.,) have all been related to adolescents' concerns about fulfilling their responsibilities. Several

studies have investigated the causes of stress in adolescents and their results can be found in the literature. Glasscock, Andersen, Labriola, Rasmussen, and Hansen (2013) conducted a study among Danish adolescents and found that higher stress levels were associated with lower parental education and wealth. Mates and Kenneth (1992) surveyed tenth graders to understand the stress they faced and how they coped with it. Parent-child dynamics, work and financial issues were cited as major causes of stress.

Lin and Yusoff (2013) studied the factors that cause secondary school students in Malacca to become anxious. They found that more than half of the students in the study were experiencing psychological stress due to academic pressure.

Individuals' irrational thinking processes can predict their emotional responses to stressful situations (David & Szentagotai, 2006). Ellis (1962) defines irrational thinking as (totally) illogical, erroneous, rigid and unpragmatic evaluative cognitions that lead to emotional distress. Irrational, rigid, and unfounded beliefs are called “irrational thinking” (Ellis, 1962). Emotional distress occurs when a person's self-view and worldview conflict with reality, despite the person's belief that both are correct (Ellis & Dryden, 1988). This is a fundamental idea of rational behavioral therapy (REBT), which states that the way we perceive experiences affects the way we learn from them. Ellis describes some mistakes that almost everyone makes. False beliefs include blame, expressions of fear that exaggerate the likelihood of negative outcomes, and “must, must, must” statements that are difficult to achieve. According to Dryden and DiGiuseppe (1990), irrational thinking is mainly divided into three categories: requirements for self (e.g., "I should do well"), requirements for others (e.g., "You must treat me fairly") and the impact of the request on others in the world (e.g., “The circumstances of my life must be the way I want them to be”). Unlike illogical thinking, which can lead to maladaptive emotional responses in the face of trauma, rational perspectives are more malleable and provide healthy options for coping (David, Lane, & Ellis, 2010). In these situations, stress may increase.

Depression (Marcotte, 1996), accidental suicide (Akcan, Arslan, Ekin, & Karanfil, 2011),

deterioration in the relationship with life satisfaction (ivitçi, 2009), and distorted perceptions of social norms (Vukosavljevic-Gvozden, Filipovic, & Opacic)). , 2015) are just some of the negative consequences associated with irrational thinking in young people. Posttraumatic stress disorder (PTSD; Hyland, Shevlin, Adamson & Gary; Hyland, Adamson & Boduszek; Visla, Flückiger, Grosse Holtforth; David, 2016); college stress (Alberto & Jonathan, 2008); and psychological discomfort have all been associated with Related to irrational thinking. Existing literature suggests that illogical thinking patterns are associated with increased stress.

"Self-efficacy" refers to a person's belief in his or her ability to acquire the knowledge and skills required to successfully perform a specific activity (Bandura, 1997). Students who believe in their abilities are less likely to experience anxiety.

A study of teachers and students in Iran and Turkey showed that self-efficacy is related to stress. Negative self-confidence is also associated with a higher risk of mental health problems such as emotional exhaustion and academic burnout (Khezerlou, 2017). Self-efficacy can be measured by observing the extent to which a person connects his or her knowledge to beliefs about his or her ability to use that knowledge in difficult situations (Kalat, 2016). Adolescents who are independent and creative have a greater chance of overcoming the obstacles they encounter. From this perspective, situational analysts and the application of skills and motivations can be used in many areas to analyze how an individual's internal systems interact with the external world as a source of events. Research shows that people with low self-efficacy are more sensitive to criticism. These people have severe self-doubt and avoid taking on challenging tasks out of fear of failure. Because of the fear associated with believing these lies, it becomes more difficult to use metacognitive strategies that might otherwise be useful (Coutinho & Neuman, 2008). That's why we're here to understand how adolescents' confidence in their abilities affects the link between irrational thinking and emotional distress.

Stress and stress responses are associated with the risk of burnout.

Secondly, belief in one's abilities is affected by both rational thinking and emotional fluctuations.

This is why we rely on self-efficacy as the facilitator of the model. The impact of adolescents' diverse perspectives and self-evaluations is profound (Nes & Segerstrom, 2006). Therefore, we wanted to examine the impact of this mediating factor on challenging learning events and responses to them. As stated previously, many researchers have studied the role of self-efficacy in educational settings. The purpose of this study was to test hypotheses based on the (Krypel and Henderson-King 2010) study, which found a statistically and practically significant negative relationship between high levels of self-efficacy and stress in college students. When discussing whether students' self-efficacy affects the relationship between academic demands and academic performance, it is important to note that academic burnout is a direct result of these stressors.

Adolescence is a period of transition to adulthood, during which a young person must adapt to his or her more mature appearance, expanded cognitive abilities, and social norms of appropriate behavior, while developing and growing into his or her own personal values in preparation for adulthood. Good preparation (Ingersoll, 1989). With the burden of all these extra responsibilities, teenage life is more difficult than ever. In today's competitive world, adolesceents often say that how they compare to their classmates is valued more than who they really are. When adolescents feel threatened, they tend to exaggerate and misunderstand, convert desires into needs, and internalize their weaknesses (Young, 1983).We conclude that the relationship between illogical thinking and stress in adolescents requires further research.

3. Methodology

Research Design

Descriptive statistics and correlational methods were used to compile these results (Heppner, Wampold, and Kivlighan 2013). They claim that researchers conduct correlational studies to gain insights into the relationships between different variables.

Participants

Participants in this study were high school students from a suburb of Baghdad. The gender

distribution of our sample of 310 students was as follows: 177 females (57.1%) and 133 males (42.9%). The mean age of participants was 16.43 years (SD = 1.20). All participants in the study were randomly selected. Researchers using convenience sampling select respondents based on their proximity to the study location and whether the researcher can easily contact them (Cohen, Manion, & Marrison, 2007).

Instrument

Measuring irrationality, a version of the adolescent IBS scale: IBS-A, developed by Ivitci (2006). It was used to assess the illogical thinking level of Turkish high school students. The three parts of the scale are as follows: achievement, ease, and appreciation. The IBS-A exam consists of 21 questions. These five-point Likert items constitute the IBS-A scale. There are five possible answers: "Strongly disagree," "Somewhat true," "Strongly disagree," "Often true," and "Strongly agree" are the five possible answers. IBS-A shows an increase in irrational thinking in adolescents. Examining the construct validity of the IBS-A using exploratory factor analysis. Factor analysis of the IBS-A showed that item loadings varied from 0.40 to 0.69. The three components of the scale accounted for 33% of the total variance. Items on the IBS-A have subscale correlation statistics ranging from 0.68 to 0.28, depending on the variable of interest. During validation, significant correlations were found between the IBS-A total score and its subscales, as well as the Children's Depression Scale and the Test Anxiety Scale. Three-week test-retest consistency showed reliability coefficients of 0.75, 0.84, 0.67, and 0.82 for the needs for comfort, need for success, need for esteem, and IBS-A total scale measures, respectively. The overall Cronbach's alpha was 0.71, and the individual subscale values of the "comfort needs" dimension were 0.61, the "success needs" dimension was 0.62, the "respect needs" dimension was 0.57, and the "respect needs" dimension was 0. 61 "Requires respect. "

Perceived Stress Scale (PSS) Cohen, Kamarck, and Mermelstein (1983) developed the Perceived Stress Scale (PSS) to measure a person's level of stress. This scale has 10 different options, ranging from "never" (meaning "almost never") to "often" (5 or more times per week). Higher

PSS values indicate that the respondent is experiencing higher than average levels of stress. In criterion validity studies, the PSS has been shown to correlate significantly with both the Beck Depression Inventory and the State-Trait Anxiety Inventory. The calculated internal consistency α coefficient of the scale is 0.84, indicating that the scale has good reliability.

Procedure

After obtaining appropriate permissions, the researchers collected student data during regular school hours. Only students who volunteered to participate in the study were counted. The time required to obtain the information is approximately 15 minutes. Data were examined using bootstrap sampling, ordinary least squares regression, Pearson's correlation coefficient, and descriptive statistics. The indirect mediating effect of the bootstrap final variable is statistically significant if the mediating variable contains a point estimate with a 95% BCa confidence interval specified by Hayes (2012; 2013) for intervention analyses. The point estimate is considered statistically significant because it is not within zero. To determine which of these two mediating variables had a greater impact on the model, the researchers conducted a comparative test of them using software developed by Hayes (2012, 2013). Multimediator parallel bootstrapping analyzes were performed using IBM SPSS's PROCESS Macro (publicly available at http://www.processmacro.org/download.html) and programmed to use Hayes' multiple mediator model 4 (Hayes, 2012, 2013). The study used significance level A.05. Data were analyzed using the IBM SPSS 22.0 software package.

Statistical Approach

The correlations and the descriptive statistics obtained from Irrational thinking, stress and self-efficacy variables are presented in **Table 1**.

variables	Men	SD	Skew	Kurt	1	2	3
irrational thinkings	60.67	11.59	.29	.16			
self-efficacy	30.93	5.50	.19	-.67	.13*	----	
stress	31.43	6.69	-.26	16	.21**	-.41**	----

N=310, **p<.0

Table 1. Descriptive statistics and Pearson correlation coefficients related to research

Results

When examining the values provided in **Table 1**, the study group had a mean of 60.67 (SD = 11.59) for irrational thinking, a mean of 30.93 (SD = 5.50) for self-efficacy, and a mean of 30.93 (SD = 5.50) for self-efficacy. 31.43(SD). = 6.69) is the voltage.

From the skewness and kurtosis values obtained for the studied variables, it can be seen that the studied data is normally distributed. Based on the correlations between the study variables, a negative correlation was found between irrational thinkings and self-efficacy ($r = -.13$, $p<.05$) and a positive correlation between irrational thinkings and stress ($r = .05$). 21, $p < .05$). and found a negative correlation between self-efficacy and stress ($r = -.41$, $p < .01$).

There is evidence of a link between self-efficacy and stress As shown in **Figure 1**.

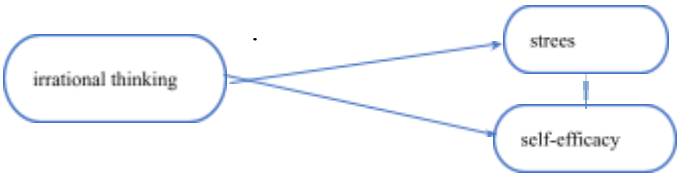

Figure 1

Examining **Figure 1**, the overall effect of irrational thinkings on stress ($c = .13$, $SE = .03$, $t = 4.18$, $p < .001$) is significant (Step 1). Furthermore, the direct effect of irrational thinkings on the mediating variable self-efficacy ($B = -.06$, $SE = .03$, $t = -2.40$, $p < .05$) was significant (Step 2). The direct effect of instrumental self-efficacy on stress ($B = -.46$, $SE = .06$, $t = -7.53$, $p < .001$) was significant (Step 3). When irrational thinking and the mediating variable self-efficacy were assessed simultaneously (step 4), the association between irrational thinking and stress was attenuated

has a direct effect; but the significance value remains at the same level ($c' = .10$, $SE=.03$, $t = 3.48$, $p < .01$). Based on this result, self-efficacy appears to play a mediating role between irrational

thinkings and stress. It can also be seen that the entire model is significant (F(3-306) = 33.21, p < .001) and explains 25% of the total variance in perceptual stratification. The effect values of the model variables tested in the study are listed in **Table 2**.

Effects	Point	SE	z	p	Lower	Upper
Indirect Effect	..0296	..0145	2.2684	.02*	.0041	0622
Total Effects	.1304	.0312			.0690	.1917
Direct Effect	.1008	.0290			.0438	.1577

Table 2. Effects of variables among models of irrational thinking, stress, and self-efficacy. Bootstrap coefficient BCa product of 95% CI

N= 310, k= 5000, control variables (covariates): gender, *p<.05, **p<.01, ***p<.001 BCa: Bias 5000 bootstrap examples fixed and accelerated.

The study tested whether the indirect effects of the model were statistically significant using 5000 bootstrap samples. Estimates were evaluated using 95% confidence intervals and the results are shown in **Table 2** . As shown in **Table 2**, the indirect effect of irrational thinkings on stress through self-efficacy (difference between total and direct effects/c-c') is statistically significant (point estimate = 0.0296 and 95% BCa CI [0.0041, 0.0622]).

4. Results and Discussions

The purpose of this study was to examine how adolescents' confidence in their abilities influences the relationship between irrational thinking and stress. Research has found that higher stress levels are associated with irrational thinking, and that self-efficacy plays an important mediating role in this relationship. Research has found that irrational thinking can increase stress levels by reducing people's confidence in their ability to cope.

These results suggest a link between low self-efficacy and the stress experienced by adolescents. Definition: To prepare for adulthood, adolescents go through a developmental period called

adolescence, defined as “a period of personal development during which young people must develop a sense of personal identity and self-esteem.” (Gundersen , Mahatmya, Garasky & Lohman 2011) pointed out that adolescence is a particularly unstable period of human development. In this formative stage of life, adolescents' irrational thinking has a significant impact on their self-efficacy and stress levels.

Irrational thinking is a major psychological problem associated with low self-efficacy. Daly and Burton (1983) found that low self-efficacy was predicted by four beliefs: need for approval, high expectations of oneself, excessive worry, and problem avoidance. McLennan (1987) found similar negative correlations between self-efficacy and six types of irrational thinkings: need for praise, unrealistic expectations of oneself, adverse reactions to frustration, excessive worry, avoidance of problems, and a general feeling of powerlessness. While irrational thinkings can lead to unhealthy emotional reactions, realistic thinkings can help people find positive ways to cope with traumatic events (David, Lynn, & Ellis, 2010). It follows that irrational thinkings can damage feelings of competence.

Adolescents experience a lot of stress due to all the changes and transitions they experience simultaneously (e.g., puberty, new school, development of romantic relationships; (Cicchetti & Rogosch, 2002)). Adolescents go through as many difficulties . In fact, young people are becoming more aware of their surroundings and are optimistic about their future. They put in a lot of effort to meet their own or others' high expectations. The requirements of schools and other activities can meet their needs. Taking a toll on the health and vitality of today’s young people. In today's competitive, stressful world, many adolescents believe they are judged less based on their intrinsic worth and more based on their achievements. Current data suggests that people who regularly engage in irrational thinking This may influence increased stress levels: psychological distress (Visla, Flückiger, Grosse Holtforth & David, 2016), college stress (Alberto & Jonathan, 2008), post-traumatic stress disorder (PTSD) (Philip, Mark, Gary & Daniel, 2014) and posttraumatic stress disorder (PTSD) reactions (Hyland, Shevlin, Adamson, &

Boduszek, 2015) are both associated with illogical thinking.

It can be realistically assumed that adolescent development depends heavily on good self-awareness, as irrational opinions are illogical, inaccurate, and cause stress. The main purpose of this study was to examine self-efficacy as a possible moderator of the relationship between irrational thinking and stress. As mentioned earlier, irrational thinking can be a harbinger of stress. Irrational thinking is a hallmark of the teenage years and can impact a teen's self-efficacy and stress levels.

For example, adolescents may have irrational thinkings that can lead to increased stress and loss of self-efficacy, such as "I have to pass college entrance exams" or "If I don't pass college entrance exams, it will be a disaster." Myself and my family. "This may have something to do with the typical mindset of this age group. This makes more sense when you consider that adolescents are more reflective, confident, and opinionated than adults. adolescents can easily internalize the twisted meaning of harsh comments and May be influenced by how their peers react to them. No matter where they are, jokes about their appearance can have a negative impact on them.

The current findings suggest a link between irrational thinking and a lack of confidence in one's ability to cope with stress. The results of this study indicate that self-efficacy plays a mediating role in the relationship between irrational thinking and stress. Reducing irrational thinkings and increasing self-confidence can help reduce stress in these teens. The results of this study highlight the need to teach adolescents cognitive skills that will help them think less illogically and cope better with stress. (Young 1983) noted that adolescents often exaggerate and distort reality by converting wants into needs and confusing vulnerability with signs of inadequacy. Schools often offer psychoeducational programs based on cognitive therapy as well as individual psychotherapy for adolescents. The current results contribute to our understanding of the role of self-efficacy in the relationship between irrational thinking and stress. However, the current study suffers from several serious flaws. High school students from the Baghdad area

participated in the study. Therefore, hypotheses cannot be inferred from these data.

Summary of Findings

To answer the main question of this study, we used Pearson product-moment correlation coefficients to examine the relationship between adolescents' illogical beliefs, self-efficacy, and ways of coping with stress. Displays correlation values between variables along with their mean and standard deviation.

Theoretical Implications

The literature and hypotheses of this study were used in accordance with the requirements of this study and within the time and space constraints of its implementation. Practical Implications The current study concluded that irrational thinking is present in adolescents and is positively related to psychological distress, whereas both irrational thinking and psychological distress are negatively related to self-efficacy.

Strengths and Limitations

The weaknesses of this study were that the sample did not cover the entire population of adolescents, but was limited only to high school students. As for the strengths, it is represented in knowing the extent to which irrational thinkings are widespread among this segment.

Further Research Directions

This study recommends further research into irrational thinkings and linking them to other variables and age groups, such as children or adolescents.

5. Conclusions

At the end of this study, the researcher concluded that there is relationships between the variables of the current study as he found that irrational thinking was positively related to psychological stress, irrational thinking was negatively related to self-efficacy, and irrational thinking was related to self Effectiveness is negatively correlated. Correlation between psychological distress

and self-efficacy.

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