

The Early Maladaptive Schemas, Social Adjustability, Emotional Regulation's Role in Aggression

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ABSTRACT

The present research was conducted by the aim of investigating the role of early maladaptive schemas, social adjustability, and emotional regulation in expression of aggression among students of University of Tehran. The study sample included 375 students of University of Tehran who were selected via cluster sampling method. The research design was correlation, and the data analysis was conducted through Pearson correlation coefficient and concurrent regression analysis in SPSS-20. The findings suggested that early maladaptive schemas had a significant and positive relationship with aggression, and also, two schemas of distrust and abstinence explained a considerable part of variance in aggression in university students. The research findings implicated the importance of educational and therapeutic interventions in relation to reconstruction of the maladaptive schemas for the purpose of reducing aggression among the university students.

Key Words: Early Maladaptive Schemas, Social Adjustability, Emotional Regulation, Aggression, University Students.

eIJPPR 2019; 9(4):45-52

HOW TO CITE THIS ARTICLE: Zamani M, Nemat-Tavoosi M, Zafar M, Valadbeigi E. (2019). The early maladaptive schemas, social adjustability, emotional regulation's role in aggression. Int. j. pharm. phytopharm. res., 9(4), pp. 45-52.

INTRODUCTION

The present age has been considered to be a particular period in relation to prevention of violence; because over recent years, ample evidence and documentations regarding the growth of multi-faceted interest and cooperation of nations in the field of counteracting violence have been witnessed. In this regard, the alliance of World Health Organization, United Nations Office on Drugs and Crime (UNODC), United Nations Development Program (UNDP), to establish the Global Status Report on Violence Prevention in December 2014 can be mentioned. Each year, violence takes thousands of lives all around the world, and this amount is nothing compared to all the violence which doesn't result in homicide [1]. Despite the expectation that university education should be a preventing factor against social pathologies due to the increased level of awareness, intellectual capability, and some social pathologies among university students [2]. Although common mental disorders (CMDs) or minor psychiatric disorders such as insomnia, fatigue, irritability, forgetfulness, difficulty in concentration, and somatic complaints [3, 4] exist among all the society groups, the students are more susceptible to these problems because of their specific conditions [4-6].

Extensive researches have shown that different factors lead to the expansion of aggression [7, 8]. A group of researchers has emphasized the role of cognitive schemas in maintenance and consistence of risky/aggressive behaviors in various times and conditions [9, 10]. Crick & Dodge (1994) by proposing the social information process model, have considered that the role of mental structures, particularly cognitive schemas, have been important in the regulation of risky/aggressive behaviors [11]. Huesmann (1988) that also believed aggressive behavior is expressed due to the internalization of many aggressive schemas in

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Received: 11 February 2019; Revised:27 July 2019; Accepted: 05 August 2019

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Relevant conflicts of interest/financial disclosures: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

social status, statistics has shown an increasing trend in the mental structure of the individuals [10].

In some individuals, because of a bitter childhood, early maladaptive schemas were created which would affect their way of thinking, feeling, behavior in their subsequent friendly relationships, and other aspects of their life [12]. Social cognitive theories of violence claimed that the violent individuals have high levels of early maladaptive schemas which increase the risk of performing aggressive behaviors in these individuals [13]. Schemas have been the mental structures which organize the individuals' knowledge, and facilitate the problem-solving process, therefore, they play a considerable role in the individual's adjustment with different conditions [14]. The developmental origins of early maladaptive schemas have been rooted in dissatisfaction of basic emotional needs, early life experience, and emotional mood [15]. Early maladaptive schemas, as cognitive substructures, lead to establishment of irrational beliefs and inappropriate perception of the world. Along with the activation of schemas, some levels of emotion are released which can lead to direct/indirect physical or psychological harms [16]. The results of the research conducted by Payvastegar, Khosravi, & Karami (2016) suggested that the insecure attachment styles and early maladaptive schemas play a determining role in the prevention of aggression [17]. Also, in the research of Sigre-Leirós, Carvalho, & Nobre (2015), early maladaptive schemas, especially the entitlement schema, have been introduced as strong predictors of cognitive distortions in relation to the justificatory thought of sex offenders [18]. It should be noted that emotional regulation plays an extensive mediating role in internal schemas and different indices of aggression and depression among the youth [19]. Therefore, the role of emotional regulation as another factor affecting the academic performance and mental health, should not be ignored. Emotional reactions of university students to stressful resources, and their regulation strategy have been important issues [20]. In fact, the mental health of individuals is caused by a mutual interaction between using especial kinds of cognitive strategies for emotional regulation and appropriate appraisal of the stressful conditions [21].

Ill-regulation of emotions has been recognized as a contributing factor in creation of impulsive violent behaviors [8]. Individuals with low levels of emotional regulation have little ability to predict the demands of their colleagues, they are not capable of perceiving environmental pressures, and they don't handle their emotions well, therefore, they show less resistance against pressures [22]. Hence, the lack of emotional regulation can be a cause for problematic behaviors such as aggression [23]. Accordingly, the emotional regulation has been considered to be a basic principle in initiation, appraisal, and organization of adaptive behavior, and also in

prevention of negative emotions and maladaptive behaviors [21] which play an essential role in adjustment with stressful life events [24]. The results of the study done by Schreiber, et al., (2012) [25] suggested that illregulation of emotions is significantly associated with impulsivity, avoidance from harm, and rational reasoning, and the emotional regulation predicts the positive adaptability [26]. On other hand, adaptability, is the main pillar of mental health, and mental health is also effective on education, communication, and future life of individuals [27]. Academic experiences have been considered to be a continuation of social and individual developmental aspects of university students [28]. Social adaptability in this period can include different functions and experiences of students in university, participation in social activities, and satisfaction with the various social aspects [29]. Patterson, et al. (1992) reported that one-third up to a half of clients in psychological and psychiatric centres had aggression and antisocial behaviour problems [30]. The need for prevention from and coping with violence has been very critical and, of course, it has been clear that this is impossible to offer an appropriate analysis, and modify a phenomenon without having knowledge about the cause of it. Then, considering the prevalence of aggression and violence as one of the social pathologies among the youth [31], and the importance and necessity of its investigation, and also according to the above mentioned studies on the role of various variables in prediction of violence, the present research tried to investigate the role of early maladaptive schemas, social adjustability, and lack of emotional regulation in expression of aggression among university students.

MATERIALS AND METHOD

The present research used a correlation design, and the statistical sample included 375 male and female students in University of Tehran in three levels of bachelor, master, and PhD who were selected through cluster sampling method. The research tools included the Aggression Inventory Buss and Perry (1992), the Young Schema Questionnaire-short form (2005), the Inventory of Adjustability of Bell (1963), and the Emotional Regulation Inventory of Gross and John (2003) which were completed by the participants [32-34]. The data analysis was conducted by Pearson correlation coefficient and concurrent regression analysis in SPSS-20.

Aggression Inventory of Buss and Perry (1992) has been a self-report measure including 29 statements and 4 subscales of physical aggression, verbal aggression, anger, and hostility [32]. Questions were rated in a 5-score Likert fashion from "very similar" to "not at all similar". This tool has had the acceptable reliability and validity. The results

of retest coefficient for 4 subscales of the original version (with 9 weeks' interval) have been 0.72 and 0.82, and the correlation between four subscales have been 0.38 to 0.49 [32, 35, 36]; in investigation of the Persian version, the Cronbach alpha coefficients of these 4 subscales were reported from 0.70 to 0.83. The reliability coefficient by retest method in two weeks' interval was variant from 0.68 to 0.78. In the present research, the Cronbach alpha coefficient was calculated 0.79 for the aggression inventory.

Young Schema Questionnaire-short form (2005) has 72 questions which assess 15 early maladaptive schemas including emotional deprivation, rejection, distrust, social isolation, defect and shame, failure, dependence, vulnerability to disease, undeveloped self, devotion, emotional inhibition, strict criteria, entitlement, abstinence, and obedience [37]. Each question has been answered based on a 6-rate continuum from "completely true" to "completely false", and if the score of a scale was higher than 2.5, it showed a maladaptive schema [38]. The first inclusive research on the psychometric properties of this questionnaire was conducted by Schmidt et al. (1995) in which the Cronbach alpha coefficient in a non-clinical population for subscales of this questionnaire was between 0.50 and 0.82 [39]. Also, the Young schema questionnaire was highly correlated with psychological distress and personality disorders' scales, therefore, it has a desirable validity [31]. In the research conducted by Waller, Meyer, and Ohanian (2001), the total reliability of this test was 0.96, and the reliability of subscales was reported to be higher than 0.80 [40]. In the Persian version, Zolfaghari, et al. (2008) reported that internal consistency coefficient of the whole questionnaire was 0.94, and the internal consistency coefficients for the subscales was as follows [41]: 0.91 for separation/rejection, 0.90 for autonomy/disturbed function, 0.73 for disturbed limitations, 0.67 for other-orientations, and 0.78 for the excessive alertness and inhibition. According to the research by Ahi, et al. (2007), after investigating this scale among the students of University of Tehran, the internal consistency by Cronbach was 0.97 in the female group, and it was 0.98 for the male group [42]. It should be noted that in the present research, 7 subscales (emotional deprivation, rejection, distrust, social isolation, defect and shame, entitlement, and abstinence) were used, and the Cronbach alpha coefficient of this inventory was 0.91 in the present research.

Inventory of Adjustability of Bell (1963) is a 160-item scale with five subscales of adjustment in home, career adjustment, health adjustment, emotional adjustment, and social adjustment, which were scored by yes-no/I don't know options [33]. In the current research, the social adjustment scale with 32 items was used. The retest validity of this questionnaire has been reported to be 0.70 to 0.93, and its internal consistency coefficient has been 0.74 to 0.93. Bell (1963) calculated the reliability coefficients for the subscales of adjustment in home, health adjustment, social adjustment, emotional adjustment, and career adjustment and the whole inventory, which were respectively as follows [33]: 0.91, 0.81, 0.88, 0.91, 0.85, and 0.94. Also, this test has shown high discriminative reliability in identifying normal groups from neurotic groups, and it has also shown correlation with personality questionnaire of Eysenck [43]. For the Persian version, Mikaeli and Madadi (2008) reported that the total reliability of this test was 0.84 and its validity was 0.80 [44].

Emotional Regulation Inventory of Gross and John has been developed by Gross & John (2003) for measuring emotional regulation strategies [34]. This questionnaire included two subscales of reappraisal with 6 items, and the repression with 4 items. The participants answered the questionnaire in a Likert scale from strongly disagree (1 score) to strongly agree (7 scores). In the research by Gross and John (2003), the obtained internal consistency was 0.79 for reappraisal, and it was 0.73 for repression; and the retest validity after three months was 0.69 for the whole scale. The internal consistency coefficient of this scale among governmental employees and catholic students of Milan University was 0.48 to 0.68 for reappraisal, and it was 0.42 to 0.63 for repression. Correlation coefficient of reappraisal with positive affect was 0.24, it was -0.14 with negative affect, it was -0.15 for the correlation of repression with positive affect, and it was 0.04 with negative affect [45]. The Persian version of this scale was investigated in Iran by Ghasempour, Eilbeigi, and Hassanzade (2012), and its reliability based on the internal consistency method was obtained with a Cronbach alpha range of 0.60 to 0.81, and the validity of the scale by the main component analysis using rotation of Varimax of correlation between two subscales was 0.13, and the criterion validity was reported to be desirable [46]. In the present research, the Cronbach alpha for the emotional regulation inventory equalled 0.72.

RESULTS

The present research included 221 male students and 154 female students who were mainly single (92.8%), and were studying for bachelor degree (61.1%). Findings of Pearson correlation coefficient indicated that there was positive and significant relationship between early maladaptive schemas and aggression. The correlation coefficient between the whole score of violent behaviours and the following schemas were significant at 0.99 significance level: emotional deprivation ($r = 0.277^{**}$ and sig=0.000),

rejection (r =0.227** and sig=0.000), distrust (r =0.373** and sig=0.000), social isolation (r =0.368** and sig=0.000), defect and shame (r =0.321** and sig=0.000), entitlement (r =0.307** and sig=0.000), and abstinence (r =0.429** and sig=0.000). The correlation coefficient between total score of aggression and social adjustment in students (r =0.005** and sig=0.918) was not significant, and there was no significant association between social adjustment, and each of four subscales of aggression. The correlation coefficients between total score of aggression and the emotional regulation strategy of reappraisal (r=-0.023 and sig=0.655) and between aggression and the emotional regulation strategy of repression (r=-0.097 and sig=0.062) showed that there was no significant relationship between these variables. But, the investigation of each of the subscales of aggression indicated that there was a positive and significant relationship between repression and verbal aggression (r=0.114*) and anger (r=0.125*) in 0.95 significance level (table 1).

In relation to the role of three variables of early maladaptive schemas, the social inadaptability, and the lack of emotional regulation in predicting aggression, the results of the concurrent regression analysis showed that these three variables totally predicted 0.26% of the variance in aggression among the students (R^2 =0.26). But, as can be seen in table 2, among the ten above mentioned variables, just the maladaptive schemas of distrust (t=3.248 and p=0.001) and abstinence (t=4.800 and p=0.000) could predict a significant part of aggression among the students.

Table 1: correlation coefficients between aggression and early maladaptive schemas, social inadaptability, and emotional regulation

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		Physical	Verbal	Anger	Hostility	Total score				
Early maladaptive schemas	Emotional deprivation	0.195**	0.230**	0.298**	0.172**	0.277**				
	Rejection	0.148**	0.195**	0.256**	0.138**	0.227**				
	Distrust	0.359**	0.294**	0.346**	0.189**	0.373**				
	Social isolation	0.321**	0.294**	0.358**	0.206**	0.368**				
	Defect and shame	0.225**	0.273**	0.345**	0.198**	0.321**				
	Entitlement	0.249**	0.296**	0.192**	0.294**	0.307**				
	Abstinence	0.292**	0.386**	0.357**	0.347**	0.429**				
Emotional regulation	Reappraisal	0.021	-0.101	0.016	-0.031	-0.023				
	Repression	0.067	0.114*	0.125*	0.019	0.097				
	Social inadaptability	0.024	0.027	-0.058	0.021	0.005				

** P< 0.010, * P< 0.050

variable	В	SEB	Beta	t	Р
Social adjustment	0.087	0.079	0.052	1.105	0.270
Emotional deprivation schema	0.128	0.127	0.057	1.008	0.314
Rejection schema	-0.036	0.137	-0.014	-0.265	0.791
Distrust schema	0.472	0.145	0.181	3.248	0.001
Social isolation schema	0.275	0.191	0.104	1.441	0.151
Defect and shame schema	-0.003	0.234	-0.001	-0.012	0.991
Entitlement schema	0.228	0.142	0.085	1.602	0.110
Abstinence schema	0.707	0.147	0.274	4.800	0.000
Reappraisal	0.058	0.101	0.028	0.577	0.564
Repression	0.103	0.173	0.029	0.594	0.553

Table 2: regression coefficients of predictor variables

DISCUSSION

The positive and significant relationship between aggression and maladaptive schemas was consistent with social cognitive theories of violence which held that the high levels of early maladaptive schemas would increase the risk of committing violence among individuals [13]. Various research studies have confirmed this association [18, 47], and it was appeared that each maladaptive schema

can contribute to the expression of aggression. The important issue was that in the findings of the present research, the highest correlation coefficient was for the relationship between aggression and abstinence schema. As Young (1999) proposed, individuals with the abstinence schema, have continuous problems in abstinence, they lack tolerance in face of frustrations in the way of attaining personal goals, they have incapability in preventing the expression of emotions and impulses, they

don't tolerate pain, and they get away from responsibility [37]. Accordingly, it has not been far from expectation that increasing aggression in the present sample would lead to the increase in the abstinence schema. Based on the research literature, the lack of social adjustability has been mainly associated with the increase in aggression. For example, Mikaeli and Madadi (2008) suggested that irrational beliefs have Young a negative relationship with social adjustment, and the following components can predict adjustment [44]: expectation of affirmation by colleagues, excessive expectations from one's self, reaction to frustration by helplessness, emotional irresponsibility, problem avoidance, dependence, and helplessness for change. Also, based on the existing research, there has been a relationship between the ability of managing tension and legal problems in universities [48] and social adjustment in university students. Accordingly, the explanation of the lack of significant relationship between aggression and inadaptability needs more investigations. Regarding the positive and significant relationship between emotional repression and verbal aggression and anger, it seemed that repressing internal emotions can lead to the expression of emotions in the form of verbal aggression. Verbal aggression and anger which mean the feeling of aggression could be caused by the lack of appropriate expression of emotions and not using appropriate strategies for emotional regulation. As the research conducted by Schreiber, et al. (2012) suggested, the individuals with high ill-regulation of emotions, obtained significantly higher scores in impulsivity, avoidance of harm, and rational reasoning [25]. The findings of the present research were also consistent with the prior research in this area. On the other hand, the lack of significant relationship between emotional regulation and subscales of verbal aggression and hostility has been an important issue. Based on the findings of the present research, none of the subscales of the repression and reappraisal could play a role in physical aggression or aggression in the form of hostility. Therefore, the role of ill-regulation of emotions and using emotional repression has been restricted to more passive and more internal forms of aggression such as hostility and verbal aggression, and this emotional repression could not lead to the physical aggression or expression of anger in action. But, regarding the considerable role of abstinence and distrust schemas in prediction of violent behaviors, an extensive range of studies which emphasized the undeniable role of early maladaptive schemas in expression of aggression can be referred. Individuals with distrust schema believed that other individuals abused them in every slightest opportunity, others harmed them, they misbehaved, they disappointed them, they lied, and they were a bunch of frauds and opportunists. These expectations led the

individuals to perceive their surrounding in a particular way. It has been normal that an individual with such a schema would proceed to express aggressive behaviors as soon as he/she perceived the slightest stimulations from the environment. As noted, these individuals live with a mentality filled with the risk of being abused by others, they misinterpret every behavior of others in a paranoid way, and they would react in a defensive manner. Therefore, this schema can predict an extensive range of aggressive behaviors. Behaviors which have been done based on distrust, and by the aim of defending themselves against possible harms from others. Regarding abstinence as the second schema which can predict aggressive behaviors, the role of intolerance against frustration and impulse control as main features of abstinence can be referred. As mentioned earlier, the individuals with abstinence schema cannot control their emotions and impulses, they usually have low responsibility, and they have been raised in a family which has been too permissive, and has nurtured a sense of superiority in the children. The sum of these factors can lead the individual with abstinence schema to the lack of the appropriate control over his/her emotions and anger, and react to his/her daily life's frustrations and dissatisfactions. But, the results of the present research should consider the limitations. In this regard, we can refer to the great number of questions which were accompanied by the possibility of getting tired and the reduction of accuracy when answering. Also, since the sample was limited to the university students, the generalizability of the results to other groups would face with difficulty. Finally, according to the above mentioned findings, it seemed that in order to predict and reduce aggressive behaviors, we should put focus on the role of maladaptive schemas and emotional ill-regulation among university students more than past. Teaching appropriate strategies of emotional regulation also delivering educational and therapeutic and interventions, particularly for the purpose of modifying maladaptive schemas, can be an important measure for reducing aggression among university students. Introducing, identifying, and describing psychological problems and maladaptive schemas in the frame of educational workshops or virtual educations can be effective in this area. Many university students are not aware of their unhealthy habits and strategies for confronting emotions. In this regard, it is necessary that essential educational courses be held in the frame of academic syllabus or in the frame of complementary courses for teaching life skills, emotional regulation, and introduction of appropriate coping strategies with different psychological problems particularly maladaptive schemas. Offering psychological services in the frame of the individual and group counseling sessions can also be beneficial in this area. Certainly, preventive measures have been the first and most important steps in order to reduce aggression in individuals, particularly university students

Conflict of Interest

No conflict of interest was reported for any of the contributing authors.

Ethical considerations

Each subject in the present study completed an informed consent form prior the research. The intervention protocol was approved by the counseling center of the University of Tehran before conducting the research. All ethical considerations were met before, during, and after the study.

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