THE RELATIONSHIP BETWEEN AUTONOMY AND COGNITIVE EMOTION REGULATION AMONG ADOLESCENTS

ANTARA DAS ANTU AND FARIEA BAKUL[1*]

Department of Educational and Counselling Psychology, University of Dhaka, Dhaka-1000, Bangladesh

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Abstract

Autonomy and cognitive emotion regulation both are important aspects of adolescent years. Previous research also indicates that an individual's cognitive emotion regulation (CER) and autonomy is correlated. The present study aimed to gain more insight into the relationship between autonomy and cognitive emotion regulation of Bangladeshi adolescents. Cross sectional survey design was used covering 100 adolescents having an age range of 12-15 years of age for data collection. Participants completed the questionnaires including a demographic questionnaire, adolescent autonomy questionnaire and cognitive emotion regulation questionnaire. Correlation analysis suggests that autonomy support showed an increase in the adaptive emotion regulation. Regression analysis models revealed that adolescent autonomy significantly explained 14.6% of variance for adaptive emotion regulation, and 4.6% of variance for less adaptive emotion regulation. Findings from the present study embodied that Bangladeshi adolescents use more adaptive cognitive regulation than maladaptive emotion regulation. These findings have implications for parents, primary caregivers, child psychologists, and other relevant professionals who are and will be working with children/ adolescents in helping them to learn and enhance their autonomy for their future and effective cognitive regulation of emotion.

Introduction

Adolescence is a stage of life with unique rights and requirements in terms of development. Additionally, this is a period for knowledge and skill development as well as social and emotional development, all of which are crucial for future responsibilities played by young people. For the majority of teenagers, developing a feeling of independence is just as crucial to maturing as developing a sense of self. The transition to adulthood and the sense of autonomy is core part of development in adolescence [1].

Autonomy is an umbrella term comprising moral decision-making, thinking, and feeling by following an individual's self-guidance and beliefs rather than following someone else's advice all the time. It includes self-regulation, making choices, decisions, self-concept, independence, etc. There are several forms of autonomy, including functional, emotional, behavioral, and value autonomy, certain types of autonomy may develop more quickly than others [2].

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* Author for correspondence: <fariea.bakul@du.ac.bd> [1]Department of Psychology, University of Dhaka, Dhaka-1000, Bangladesh.

Cognitive emotion regulation can be characterized as a part of the broader concept of emotion regulation which can be defined as the 'extrinsic and intrinsic mechanisms' responsible for analyzing, monitoring, and modifying emotional control. It is the capacity to control one's emotional responses to upsetting situations[3]. So far nine categories of cognitive emotion control methods have been identified such as positive reappraisal, positive refocusing, perspective-taking, planning, acceptance, ruminating, catastrophizing, self-blame, and other blame[4].

Strong evidence from earlier research suggests that autonomy can be a "force multiplier" of self-regulation[5]. However, the research has not yet examined how autonomy could support affect regulation or specific cognitive emotion regulation. Researchers have also addressed the connection between affect regulation and autonomy in different studies, and provided examples of how autonomy might be promoted generally as well as at different stages of the cancer trajectory[6]. A study on adolescent autonomy found that narcissism, being away from family, and cognitive factors are all significant aspects of how adolescents assess their autonomy[7]. Researchers in a different study noted that the idea of autonomy has become crucial in explaining the course of healthy development and as a sign of fully developed and efficient self-regulation which can in turn also enhance cognitive emotion regulation[8]. Additionally, emotion regulation is a crucial process connected to sustaining the autonomous functioning of an individual[8].

Research has found that self-control is typically made easier by the psychological feeling of autonomy, which is also linked to better health and wellbeing[9]. Adolescent's autonomous drive to express and feel their emotions and to adopt adaptive emotion control techniques were both associated with parental autonomy support for emotional expression[10].

According to the self-determination theory (SDT), everyone requires autonomy, competence, and relatedness, and their well-being benefits when these fundamental psychological requirements are met[11]. Another previous research reported, autonomy promotes emotional integration by encouraging the mastery and manifestation of emotions across time[12]. Research emphasizing on the idea that autonomy highly accord with personality operation between characteristics, traits, and emotion[13].

In an individual's life span teenage years are the crucial time for not only the development of autonomy but also for knowing how to use appropriate cognitive emotion regulation strategies in various contexts. Although autonomy and cognitive emotion regulation show strong connections in previous research discussed above; not a single in-depth study investigating the variables has been found in Bangladesh based on its culture. The present study focused on gaining more insight into the relationship between autonomy and cognitive emotion regulation among Bangladeshi Adolescents. In the view of the discussion, the specific objectives of the study were:

- To Investigate the condition of autonomy and cognitive emotion regulation among Bangladeshi adolescents.

- To Investigate whether there is any relationship between autonomy and cognitive emotion regulation.

- To Investigate whether there are any differences among genders in terms of autonomy and cognitive emotion regulation.

Materials and Methods

Participants and Design of the study: For the present study early adolescents aged from 12-15 years studying at several high schools in Dhaka city were recruited as participants. It as a cross-sectional self-report survey. A total of 100 participants (Female= 51, Male = 49) were filled up the questionnaires.

Participants were instructed both verbally and written before the data collection started for obtaining informed consent. It took an approximate 20 minutes to fill out the whole questionnaire.

Measuring instruments: The survey included a Demographic Questionnaire, the Adolescent Autonomy Questionnaire, and Cognitive Emotion Regulation Questionnaire.

Demographic questionnaire: The Demographic Questionnaire asked about the participant's age, sex, area of residence, and socio-economic status.

Adolescent autonomy questionnaire (AAQ): The Adolescent Autonomy Questionnaire (AAQ) was used to measure the level of autonomy experienced by adolescents[14]. This scale measures three types of autonomies such as AA- Attitudinal Autonomy (the ability to make a decision among options and define goals), EA- Emotional Autonomy (the perception of emotional independence from people such as parents, friends), and FA- Functional Autonomy (the different approaches taken to achieve a goal). For the present study 15 items of AAQ was translated into Bangla. Forward and Back translation process was followed for translation. Validity measurement was ensured by calculating content validity ratio after giving the Bangla item with the original English ones to the judges for assenting the appropriateness of the translated items. Participants were instructed to mark each statement on a 5-point Likert format scoring ranging from 'very bad description of me=1' to 'very good description of me=5'. The three dimensions are examined separately or as one general concept of autonomy. A favorable response to half of the items would suggest increased autonomy; the other half were written oppositely. The original version of the scale had Cronbach's Alpha 0.87 [14] and the present population had .74 of Cronbach's Alpha.

Cognitive emotion regulation questionnaire (CERQ): The Bangla adapted version of the original English CER Questionnaire (CERQ)[15] [16] is a multidimensional questionnaire

which identify different cognitive coping strategies used by individuals when experiencing any negative events, situations or thoughts in life. Here we used the adapted Bangla version of CER questionnaire. The Adapted CERQ contains 12 items with five response alternatives (such as completely disagreement = 1 to completely agreement = 5). All the item-total correlations were significant and ranged from .38 to .66 with a mean of .55 in the Bangla Adapted Version[16].

Data Analysis: After completing the data collection SPSS was used for data analysis. Results of the study form the descriptive analysis, the Pearson product moment correlation analysis, and regression analysis are described in the later sections.

Results and Discussion

Table 1 states demographics and mean ratings of attitudinal autonomy, functional autonomy, emotional autonomy, adaptive CER and maladaptive CER.

Table 1. Demographics characteristics of the respondents (N=100).

Gender	(n, %)
Male	49
Female	51
Age (n, %)	
13 years	15
14 years	36
15 years	
Living place (n, %)	
City	94
Village	6
Socioeconomic status (n, %)	
Higher class	4
Higher- middle class	64
Middle class	26
Lower-middle class	5
Lower class	1
AA (M, SD)	(14.55, 3.64)
EA (M, SD)	(14.69, 4.30)
FA (M, SD)	(16.31, 4.70)
Adaptive CER (M, SD)	(48.91, 9.76)
Maladaptive CER (M, SD)	(35.05, 10.00)

AA = Attitudinal Autonomy, EA= Emotional Autonomy, FA= Functional Autonomy, CER= Cognitive Emotion Regulation.

Results reported in Table 1 shows that out of 100 participants 51% (n=51) were female and 49% (n=49) were male. Among them 94% (n=94) of the participants lived in the city, and only 6% (n=6) lived in the village. The age of the participants was between 13 years to 15 years (13 years= 15%, 14 years=36%, 15 years=49%). In terms of socioeconomic status- 4% of the participants belong to a higher class, 64% belong to an upper middle class, 26% belong to the middle class, 5% belong to the lower middle class and 1% belong to the lower class category. Here AA, EA, and FA revealed mean and standard deviation scores of (M = 14.55, SD=3.64), (M=14.69, SD=4.30) and (M=16.31, SD=4.70) respectively. Mean differences in AA, EA and FA were almost similar. Adaptive CER showed a higher mean score than maladaptive CER. This result is compatible with the existing research indicated that people mostly use adaptive CER than maladaptive CER[17].

Table 2. Mean difference of adaptive CERQ scores between male and female.

	Sex	N	Mean	SD	t	p
Adaptive CERQ scores	Male	49	47.88	9.214	-1.038	.656
	Female	51	49.90	10.242		

*p<.05.

An independent sample t-test was used to compare the mean in adaptive CER male (n=49) and female (n=51). The test was statistically non-significant. That indicate there were no significant difference in male and female using adaptive CER. The result was consistent with existing study [16].

Table 3. Mean difference of maladaptive CERQ scores between male and female.

	Sex	N	Mean	SD	t	p
Maladaptive CERQ scores	Male	49	35.20	8.324	.288	.155
	Female	51	34.63	11.398		

*p<.05.

Another independent sample t-test also showed non-significant relationship between male and female using maladaptive CER strategies. The result congruence with existing study [16].

Table 4. Mean difference of total autonomy scores between male and female.

	Sex	N	Mean	SD	t	p
Total autonomy scores	Male	49	44.94	11.042	-.482	.385
	Female	51	45.92	9.310		

*p<.05.

Table 4 indicated no significant mean difference in the total scores of autonomy among male and female. However previous study indicated there would be difference between gender in terms of developing autonomy[14].

Table 5. The Pearson Product-moment Correlation among the variables (N=100).

	1	2	3	4	5
1. AA	-				
2. EA	.555**	-			
3. FA	.481**	.462**	-		
4. Adaptive CER	.375**	.233**	.335**	-	
5. Maladaptive CER	-.105	-.269**	-.115	.089	-

*$p<.05$, **$p<.01$ (2-tailed).*

Results presented in Table 5 showed a significant positive correlation between AA, EA, and FA and which are supported by previous research findings [14]. Here, AA, EA, and FA also showed a significant positive relationship with CER, meaning that CER increased among the participants with the rise of autonomy. These results are consistent with earlier research findings where autonomy support showed an increase in the adaptive emotion regulation [14,18]. AA and FA have a relationship with maladaptive CER but none of them is significant. Only EA showed a higher level of significant negative relationship with maladaptive CER. When emotional autonomy decreases, maladaptive CER would increase.

Table 6. Regression analysis for exploring factors associated with CER.

	B	LB	UB	SE(B)	β	R^2	AR^2	F
		95% CI						
						.172	.146	6.633**
AA	.772	.148	1.396	.314	.288			
EA	-.051	-.575	.472	.264	-.023*			
FA	.428	-.025	.881	.228	.206			
Dependent variable: Adaptive CER								
						.075	0.046	2.605*
AA	.182	-.494	.859	.341	.066			
EA	-.707	-1.274	-.139	.286	-.303			
FA	-.014	-.505	.477	.247	-.006**			
Dependent variable: Maladaptive CER								

*$p<.05$, **$p<.01$.*

Table 6 represents the regression analysis conducted for determining the predictors of autonomy and cognitive emotion regulation among adolescents. It was found that adaptive CER (Adjusted R^2= .146, F=6.633, $p<.01$) was independently predicted by AA, EA, and FA; and maladaptive CER (Adjusted R^2= 0.046, F=2.605, $p<0.05$) was predicted by AA, EA, and FA. The regression model explained 14.6% of variance in adaptive cognitive emotion

regulation (Adjusted R^2=.146, F=6.633, p<.01). This finding indicates that autonomy and cognitive emotion regulation have an explainable relationship. Here the standardized β value indicated that EA (β= -.023*; p<.05) is the only predictor of adaptive CER. On the other hand, autonomy explained 4.6% of variance in maladaptive cognitive emotion regulation.

These findings also depicted the relationship between autonomy and maladaptive CER (Adjusted R^2=0.046, F=2.605, p<0.05), where FA was the only predictor of maladaptive CER (β=-.006; p<.01). In this study the relationship between autonomy and cognitive emotion regulation has been found but the variances were less predictable. One definable reason is that the participants of the present study belonged to the early adolescent age group who vastly dependent on their families. So, autonomy and cognitive emotion regulation might show increased development if we could also study with late adolescent group. Previous studies found that autonomy and how people learn to regulate their emotion increase with age[18-20].

The findings of the present study embodied that Bangladeshi adolescents use more adaptive cognitive regulation than maladaptive emotion regulation. There was no considerable difference seen in adolescents using three types of autonomies. But autonomy and cognitive emotion regulation showed a substantial relationship. Findings from the present study have greater implications not only for children and adolescents but also for their parents, and primary caregivers because they are their first base of learning aspects of life such as autonomy, and emotion regulation in future life. Additionally, child psychologists, counsellors, school teachers, and psychological therapists would benefit from these findings because it would help them to understand the type of autonomy, level of cognitive emotion regulation that a child or adolescent is showing or not, and how to help them in need. Although the sample size of the present study was small, it needs to note that the data collection commenced during the first half of 2022 in Bangladesh. During that time the first lockdown due to the COVID-19 infection rise was also implemented for a few weeks. Also, there are no established studies on the assessment of autonomy and cognitive emotion regulation of adolescents.

Future studies should focus on investigating different demographical scopes regarding autonomy and cognitive emotion regulation with a larger sample size because the development of autonomy depends largely on one's upbringing, family environment, and parenting style also.

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