

Moderator Effects of Cognitive Emotion Regulation Skills on the Relationship between Aggression and Physical Health

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ABSTRACT

Objective: The aggressiveness seriously affects the physical and psychological health. Therefore, finding the factors and strategies that are effective on the relationship between these two, is important. We aimed to investigate the moderating effect of the cognitive emotional regulation skills on the relationship between aggressiveness and physical health.

Methods: 150 students of University of Science and Research of Tehran were selected by cluster sampling method and responded to the questionnaire: The cognitive emotion regulation questionnaire, the aggression questionnaire and quality of life questionnaire. Pearson correlation was used to analyze the data.

Results: The results show that 0.30 percent of the variance which has been observed in the relationship between aggressiveness and physical health is explained by the moderating effect of the cognitive emotional regulation skills.

Conclusion: The cognitive emotional regulation strategies have a moderator role on the relationship between the aggressiveness and physical health. Therefore teaching these strategies allow individuals to control their aggression, as well as improve their physical health.

KEY WORDS: Cognitive Emotion Skills, Aggressiveness, Physical Health, Moderating Effects

1. INTRODUCTION

The aggressiveness is a targeted behavior which the purpose of the incidence of such behavior is harming themselves or others. Many studies have shown that there is a significant relationship between aggressiveness and the physical and mental health [1,2].

Since high levels of aggression has an important role in the incidence of traumatic events, many studies have been conducted to identify affecting factors on aggressiveness [3,4].

The studies have shown that there is a significant relationship between the cognitive emotion regulation skills and the aggressiveness [5,6].

The emotion regulation is a process which aims to modification of higher, rational control over lower, more basic emotion systems in order to accomplish adaptive goals [7,8].

Because of the importance of the usage of the cognitive emotion regulation skills in the regulation of the different aspects of the psychological functioning [9-11], in the recent years this issue was taken into the consideration by many researchers [9,10,12].

Due to the importance of identifying the effective factors on the aggression, in this study we tried to determine whether the ability of people to use of cognitive emotion regulation strategies has the moderator effect on the relationship between the aggressiveness and physical health?

2. MATERIALS AND METHODS

2-1. Population, sample and Sampling Method

This study is an exploratory-correlation methodology which deals with the relationship between its variables. Statistical samples of this study were 150 (58% female, 42% male) students that were selected via cluster sampling from three faculties (73 students from Humanities, 32 students from Engineering, and 45 students from Science Faculty) of Tehran Science and Research University. Participant's range of age was from 21 to 48.

2-2. Measurement Instrument

Three questionnaires including: 1-Cognitive Emotion Regulation Questionnaire (CERQ), 2-Buss-Perry Aggression Questionnaire (BPAQ), and 3-World Health Organization Quality Of Life (WHOQOL-BREF) were used as measuring instruments in this study. The 5-point Likert scale was applied (ranged from always to never) for all three questionnaires.

1) Cognitive Emotion Regulation Questionnaire. CERQ (Granefski et al., 2001) is a multidimensional and self report scale consisting of 36 items. This questionnaire has seven subscales including self-blame (3 items), other-blame (3 items), rumination (5 items), catastrophizing (4 items), acceptance (4 items), positive refocusing (9 items) and positive reappraisal (6 items). CERQ has good factorial validity and high reliabilities, with Cronbach's alpha ranging between 0.75 and 0.87. Test-retest correlations ranged between 0.40 and 0.60, reflecting moderately stable style.

2) Buss-Perry Aggression Questionnaire. BPAQ (Buss & Perry, 1992) represents a revision of the Buss-Durkee Hostility Inventory (BDHI), including revisions of the response format and item content to improve clarity. It is a self report scale consisting of 29 items. Item-level factor analyses across three samples confirmed the presence of four factors, involving Physical Aggression (9 items), Verbal Aggression (5 items), Anger (7 items), and Hostility (8 items). Internal consistency for the four subscales and total score ranged from 0.72 (Verbal Aggression) to 0.89 (Total BPAQ). Retest correlational for the BPAQ ranged from 0.72 to 0.80 [13].

3) World Health Organization Quality Of Life (WHOQOL-BREF). The WHOQOL-BREF is a quality of life assessment developed by the WHOQOL Group with fifteen international field centres in 1989, simultaneously, in an attempt to develop a quality of life assessment that would be applicable cross-culturally. It is a self report scale consisting of 26 items. This questionnaire has four subscales including Physical health (7 items), Mental health (6 items), Social relationships (3 items), and Environment (8 items). Internal consistency for the four subscales and total score ranged from 0.73 to 0.89. Rahimi (2007) reported Cronbach's alpha of 0.65 to 0.88 for the four subscales. In this study, only the physical health subscale was used.

3. RESULTS

Table 1 and 2 show the description statistics, Kolmogorov-Smirnov test (K-S test), and the matrix of the relationships among the model variables, respectively.

Table 1. Descriptive characteristics of the research variables

Variables	Mean	Std. deviation	k-s test	sig
Cognitive emotion regulation	118.22	12.49	0.134	0.0005
Physical health	95.56	10.77	0.281	0.0005
aggression	138.96	10.95	0.151	0.0005

Table 2. Pearson correlation coefficient of variables N =150

Row	Studied variables	1	2	3	4
1	Positive cognitive emotion skills	1			
2	Negative cognitive emotion skills	-0.38*	1		
3	Physical health	0.299**	-0.31**	1	
4	Aggression	-0.38**	0.43**	-0.21*	1

** Significant at the 0.01 level ($p < 0.01$)

* Significant at the 0.05 level ($p < 0.05$)

As shown in table 2, there were significant internal correlations among all variables of the model. Positive coping skills had significant negative correlation with aggression ($r = -0.38$, $p < 0.01$) and significant positive correlation with physical health ($r = 0.29$, $p < 0.01$).

The results also revealed that negative coping skills had significant negative correlation with positive coping skills ($r = -0.38$, $p < 0.05$) and physical health ($r = -0.31$, $p < 0.01$), but there was a significant positive correlation between negative coping skills and aggression ($r = 0.43$, $p < 0.01$).

To investigate the moderator effect of cognitive emotion regulation skills on the relationship between aggression and physical health, Pearson's correlation was used. Its results have been reported in table 3.

Table 3. moderator effect of cognitive emotion regulation skills on the relationship between aggression and physical health

Row		Relationship between aggression and physical health
Cognitive	Pearson correlation	0.353
Emotion	Sig – (2-tailed)	0.000
Regulation skills	N	150

As shown in table 3, the amount of correlation between aggression and physical health increased from 0.21 to 0.35. This increase was the result of the mediator role of cognitive emotion regulation skills.

4. DISCUSSION AND CONCLUSION

The aim of this research was studying of the moderator effect of the cognitive emotion regulation skills on the relationship between aggression and physical health. The results showed that the cognitive emotion regulation skills had the moderating effect on the relationship between aggression and physical health.

Moore et al (2014) have shown in their study that low levels of psychological health is associated with a higher probability of occurring aggressive behavior and on the other hand, the incidence of such behavior eventually causes physical and psychological health problems.

Muñoz-Rivas et al (2007) in their study which aimed to investigate the prevalence of aggression, its causes and eventually its relationship to health; showed that the inability of people to use of adaptive strategies of self-defense and regulate their negative emotions had a significant association with high levels of aggression and it reduces health of aggressive people.

Suris et al (2007) have shown in their study that people who are not able to modify negative emotions and unpleasant feelings by using appropriate strategies which are not damaging, The risk of impulsive and aggressive behaviors is more than others and because of this inability to control of high pressure conditions, these people are more willing to use improper methods to reduce negative emotions; such as substance abuse.

Although so far no research has been done about the moderating effect of the cognitive emotional regulation skills on the relationship between aggression and physical health, there are many studies which have shown a significant relationship between aggression and physical health, considering that the problems which are associated with aggressive behaviors are a part of the common health complaints which by creating many physical and psychological problems imposes many damages on individuals and society. The results of this study showed that the ability of individuals to use cognitive emotional regulation strategies plays an important role to deal with this problem and unpleasant factors which are associated with it.

Therefore, learning how to use cognitive emotional regulation strategies which allow people to control their aggressive behaviors and replace them by using adaptive strategies, allows them to reduce health problems which caused by the aggression.

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