

The Role of Relaxation Techniques in Diminishing the Aggressiveness of Young Adults

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Abstract

Aggressiveness is a deliberate destructive behavior directed towards persons or groups of persons, objects, or towards itself, causing physical or mental suffering which may even result in death. Also, aggressiveness can lead to destruction of objects, or if it's oriented towards itself, can cause self-aggression or suicide.

This study verifies the efficiency of the relaxation techniques used as a method of reducing the aggressiveness, by comparing the levels of aggressiveness recorded by a sample of 60 young adults ($M_{age} = 24.185$; $SD = 3.35$), students at Titu Maiorescu University, during the pre-test vs. post-test phase. The second problem addressed by this study is the correlation between personality variables and the level of aggressiveness, both of them being assessed with specific questionnaires.

Overall, our data demonstrate the effectiveness of using relaxation techniques to reduce the aggressiveness of young adults. However, no significant correlations were found between personality variables and the level of aggressiveness.

Keywords: *aggressiveness, relaxation techniques, personality variables*

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I. INTRODUCTION

Aggressiveness is a phenomenon encountered at every level of society and can affect anyone, regardless of age or sex. Also, aggressiveness is a social behavior that involves at least two people and aims at causing suffering, in that it is not incidentally such as accidental wounding of a person, for example (Dollard, 1939).

In the process of identifying and understanding the origin of human aggressiveness we identify two main theoretical directions. The first theoretical perspective bolsters the innate character of the aggressiveness as an "instinct of aggressiveness", the drive theory in psychoanalysis, proposed by S. Freud in 1920, and the "instinct" or "innate behavior" theory, supported by K. Lorenz (1966) and Irenäus Eibl-Eibesfeldt (1970) in ethology. The second perspective, the social learning theory of Albert Bandura (1961), argues that aggression is learned and socially conditioned. We mention that when referring to aggressiveness, we mean all forms in which it may be manifested. The great variety of aggressive behaviors can be reduced to a few distinct categories differentiated by way of manifestation, elements of mediation, motivational and emotional support that is characteristic, or by the relationship between the victim and the aggressor. Thus, we can distinguish several main forms of aggressiveness such as: manifested or latent aggressiveness and passive or active aggressiveness. Also, aggressiveness may be direct or indirect; physical, mental, sexual or verbal; spontaneous or premeditated; provoked or unprovoked (Cristea, 2011).

Having this theoretical basis we start from the premise that the repeated use of relaxation techniques results in reduced levels of aggressiveness, providing perhaps one of the most effective methods that can be used for this purpose.

Given that aggressiveness is not only an innate predisposition (Freud, 1920; Lorenz, 1966; Eibesfeldt, 1970), but it is also influenced by personal, external and situational factors like high temperatures and loud sounds (Anderson, Anderson, Dorr, Deneva, Flanagan, 2000), overcrowding (Lawrence and Andrews, 2004), social rejection (Leary, Kowalski, Smith, & Phillips, 2003), decreased self-control (Gottfredson & Hirschi, 1990) and mass-media (Bushman, Huesmann, & Whitaker 2009), relaxation techniques offer real support to individuals facing situations in which they could adopt aggressive behaviors. Thus, by using relaxation techniques, muscle and emotional tension shall be reduced, amid the installation of a state of peace and calm. Subjective manifestations may also appear, such as general relaxation of the subject, isolation from the contextual stimuli, slowing breathing, decreased heart rate, and in terms of psychic manifestations, may appear subjective changes of time perception and detachment from the environment (Holdevici, 2010).

A meta-analysis conducted by Beck and Epherm (1998) on 50 studies involving 1640 subjects of different ages, reveals a 76% success rate of cognitive-behavioral therapies, which included the application of relaxation techniques with the purpose of reducing anger and aggressiveness. Also, other comparative studies that focused on several treatment methods for diminishing the aggressiveness, carried out by Tafrate (1995) and Bowman and Cohen (1996), have emphasized the efficiency of using relaxation techniques to reduce the level of aggressiveness.

Two other studies have analyzed the effectiveness of using relaxation techniques, one studied aggression among elementary students with emotional or behavioral disorders (Lopata, 2003), and another focused on preventing aggression in students with emotional or behavioral disorders (Lopata, Nida & Marable, 2006). Both studies support the applicability and effectiveness of the relaxation technique in reducing aggressiveness and increasing self-control.

Although one could find various studies about relaxation techniques used to reduce the levels of anxiety (Öst & Breitholtz, 2000) or depression (Jorm, Morgan & Hetrick, 2008) for example, there are not many studies conducted later than 2000 about the relaxation techniques used in diminishing the aggressiveness, giving all the more reason to conduct a study on the topic. Kassinove and Sukhodolsky (1995) stated that the scientific studies of therapies for the control of aggressiveness and anger have fallen behind significantly compared to studies of disorders such as anxiety and depression. However, anger management programs have become increasingly popular, even if there is no sufficient empirical evidence to support their efficacy (Koerner, 1999).

The secondary purpose of this research is to verify the existence of significant correlations between personality variables and the level of aggressiveness recorded by the subjects. We took into account studies by Bartlett and Anderson (2012) and Bettencourt, Talley, Benjamin and Valentine (2006), which suggests that certain personality variables positively correlated with increased levels of aggressiveness, or even that personality variables can help, at least theoretically, to anticipate the potential for aggressive behaviors. This study also highlights the importance of including personality as the central variable in general theories of aggression.

We shall observe that in this epistemic approach, to verify the existence of any possible correlations between personality variables and the level of aggressiveness, we correlated the results from a personality questionnaire with the levels of aggressiveness registered by our participants. Also, to point out the effectiveness of relaxation techniques we compared the levels of aggressiveness registered in two evaluation moments, one before applying relaxation techniques, and the other, after several weeks in which relaxation techniques were applied.

II. METHOD

1. Participants

A number of 60 participants, aged between 21 and 35 years old ($M_{age} = 24.185$; $SD = 3.35$), students at Titu Maiorescu University of Bucharest, were involved in this study. After they agreed to participate in this study, participants were randomly distributed in two groups, one experimental group ($N_1 = 30$) and a control group ($N_2 = 30$).

The experimental group consists of 17 female subjects ($n = 17$) and 13 male subjects ($n = 13$), aged between 21 and 33 years old ($M_{age} = 24.07$; $SD = 3.11$). The control group consists of 16 female subjects ($n = 16$) and 14 male subjects ($n = 14$) aged between 21 and 35 years old ($M_{age} = 24.30$; $SD = 3.58$).

All subjects of both groups participated voluntarily in the two testing sessions conducted within the experiment and were not remunerated in any way for their participation in this experiment. Subjects were guaranteed the confidentiality of the results and were explained that the administration of the questionnaires has a strict statistical purpose.

Also, the experimental group subjects agreed to participate in eight relaxation sessions conducted under the supervision of a specialist psychologist, specialized in cognitive-behavioral therapy, tenured teacher at Faculty of Psychology, Titu Maiorescu University of Bucharest. The relaxation sessions were conducted over a period of eight weeks, with a frequency of one session per week. The control group did not participate in any relaxation session.

2. Procedure

After setting up the experimental and control group, participants belonging to both groups completed two questionnaires, namely an aggressiveness questionnaire and an inventory of personal behavior. Following this testing session we were able to establish the baseline scores expressing the level of aggressiveness of participants from both groups, and also, we were able to gather information about the personality variables of the participants. After the last session of relaxation, both groups responded to the aggressiveness questionnaire for the second time. Thereby data could have been collected and then statistically compared with data obtained before the first application of the technique relaxation.

The relaxing sessions were based on a scenario that aimed to diminish the aggressiveness due to muscle relaxation, stress reduction and release of the daily frustrations, but also due to gaining better control over emotions and feelings experienced by the participants. The relaxing scenario was based on the theoretical papers of clinical hypnosis published by Holdevici (1995; 2010), Yapko (2003) and Burrows, Stanley and Bloom (2001). The scenario mostly contains suggestions of calm, relaxing, wellness, safety, tranquility, balance and emotional control.

In the following paragraph we present an example of suggestion that we used to induce calm, muscle relaxation, tranquility and emotional control: "Relax your forehead, let it loosen up... remove your worries with each exhale ... relax your arms, let them loose ... and remove all traces of anger, of tension... relax your torso, let it come up ... and to go down, to relax... and any pressure also disappears with every exhale ... relax your thighs, and the calves ... you let them rest and you feel increasingly relaxed... the whole body becomes relaxed ... more and more relaxed.". Also, we used the suggestion "Now that you are relaxed, in this state of deep relaxation, you can imagine ... you can create ... an ideal place ... an isolated place ... a place in which to be safe ... a place where you can find tranquility ... a place where to be in complete control of what you experience ... of your feelings ... and your emotions." to guide our participants to create a safe place, where they could go and feel in control. Further, we used the suggestion "In this place ... with every breath ... you become more calm ... more peaceful ... more balanced ... you remove any care ... any pressure ... and with each exhalation remove your frustrations ... your worries ... the anger ... the tension ... and the stress accumulated during the day ... in the last week ... just let them go ... let them disappear." to strengthen the state of tranquility, balance, peace and emotional control, and also to facilitate the release of all negative emotions and of stress.

3. Measures

3.1. The Personal Behavior Inventory (TPBI)

TPBI was developed by the American psychologist Barry Collins and his colleagues from UCLA, in order to investigate the personality dimensions that they had proposed starting from the Julian Rotter's (1960) locus of control theory (Janda, 2001).

The inventory contains 29 items and each item is rated on a 1 to 5 point Likert scale, 1 representing strong disapprove, 2 - disapprove, 3 - neither approve nor disapprove, 4 -agreed, 5 - strongly agree. The 29 items are divided into four scales, as follows: other direction (OD), inside direction (ID), lack of constraints on behavior (LC), and predictability of the behavior (PR). The scores obtained for each scale can be classified into percentiles from 15 to 85, with the 50th percentile indicating an average score (Janda, 2001).

3.2. An original questionnaire for aggressiveness

In order to measure the participants' aggressiveness we designed a questionnaire consisted of 32 five-point Likert scale items that seemed to be fairly representative for the main components of aggression considering the fact that we created them starting from the Buss and Perry's Aggression Questionnaire (AQ; Buss & Perry, 1992). Thus, similarly with AQ, our items

referred to physical or verbal acts that harm or hurt others, physiological responses specific to aggressiveness and hostile thoughts.

Initially the questionnaire comprised 40 items that were analyzed during a feedback session that involved 10 psychology students who previously completed the questionnaire as if they were true respondents. More precisely, this procedure implied conducting a group interview consisted of a series of open-ended questions designed to reveal their opinion regarding each item of the aggressiveness questionnaire. As a result, we excluded 8 questions that were reported to be irrelevant or to have an ambiguous formulation. The questionnaire's psychometric properties were not tested.

IV. RESULTS

The statistical analysis of the aggressiveness scores obtained by both groups in pretest and posttest phases proved the effectiveness of the relaxation techniques. The results obtained from the application of statistical tests are presented in Table 1 and 2.

Table 1. Means, standard deviations and standard error means for the experimental and control group.

	Pretest				Posttest			
	<i>M</i>	<i>SD</i>	<i>SEM</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>SEM</i>	<i>N</i>
Experimental group	74.16	15.583	2.845	30	65.83	11.52	2.10	30
Control group	75.70	13.716	2.504	30	74.57	11.88	2.17	30

As it can be observed, the experimental group registered a significant decrease in aggressiveness mean, while the control group only registered a slight decrease. If we were to compare the mean of each group with the average scores of the reference group, the experimental group registered high scores in the pretest phase, and normal levels of aggressiveness after the 8 sessions of relaxation, in the posttest phase. The control group registered high scores in both testing phases.

Table 2. Paired Samples t test results - pretest vs posttest

	<i>M_{diff}</i>	<i>SD</i>	<i>SEM</i>	95% Confidence Interval		<i>t</i>	<i>df</i>	<i>p</i>
				Lower	Upper			
Experimental group	8.33	7.90	1.44	5.38	11.28	5.77	29	.00
Control group	1.13	9.68	1.76	-2.48	4.74	.64	29	.52

To verify the relation between the level of aggressiveness and the personality variables, the aggressiveness scores obtained by participants were correlated with the ones for each of the four scales within TPBI. The results can be observed in Tables 3 and 4.

Table 3. Pearson correlation for the experimental group (*N* = 30)

TPBI	AQ		OD		ID		LC		PR	
	<i>r</i>	<i>p</i>								
AQ	1	-	.33	.06	-.09	.63	-.06	.72	.08	.66
OD	.33	.69	1	-	-.16	.37	-.11	.56	.16	.37
ID	-.09	.63	-.16	.37	1	-	-.02	.91	-.16	.39
LC	-.06	.72	-.11	.56	-.02	.91	1	-	.15	.41
PR	.08	.66	.16	.37	-.16	.39	.15	.41	1	-

Table 4. Pearson correlation for the control group (*N* = 30)

TPBI	AQ		OD		ID		LC		PR	
	<i>r</i>	<i>p</i>								
AQ	1	-	.11	.55	-.22	.23	.25	.16	-.08	.66
OD	.11	.55	1	-	.12	.51	-.20	.27	-.05	.75
ID	-.22	.23	.12	.51	1	-	-.32	.08	-.43	.01
LC	.25	.16	-.20	.27	-.32	.08	1	-	.10	.59
PR	-.08	.66	-.05	.75	-.43	.01	.10	.59	1	-

As it can be noticed, there were not found significant correlations between the aggressiveness and TPBI scores for neither of the two groups.

V. DISCUSSION

Overall, the present study contributes to the argument that relaxation techniques are an effective method of reducing aggressiveness. This statement is supported by the difference between the levels of aggressiveness recorded by the experimental group in pretest and posttest phases. The second confirmation of the effectiveness of this method comes from the control group who did not participate in any relaxation session. This group showed no significant difference between the level of aggressiveness recorded in the pretest phase, compared with the level of aggressiveness recorded in the posttest phase.

Although the present research sought to contribute to the studies that have supported the correlation of the personality variables with the level of aggressiveness, no significant correlation was found for the sample that we had investigated.

Even though we have confirmed the effectiveness of relaxation techniques, we can only reflect on the inability to identify significant correlations between the scores of the two questionnaires used in this research.

Considering the limitations of this study, a possible research direction could be related to the use of another personality inventory to verify the existence of significant correlations with the level of aggressiveness. Also, a more extensive study could be done in terms of differences between the level of aggressiveness of female and male participants, correlated with several other personality variables than in this research.

Nevertheless, we believe that the present study represents a step forward in replicating the experimental models in which relaxation techniques are applied, bringing some important data about the positive effect that these techniques have in mitigating issues identified in humans.

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