

The Comparison of the Effectiveness of the Behavioral Cognitive Play and Child-parent Interaction Based Play Application on Anger, Anxiety and Emotional Cognitive Regulation in Aggressive Students

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Abstract

Introduction: The purpose of this research was to compare the effectiveness of the behavioral cognitive play and child- parent interaction based play application on anger and anxiety in aggressive students.

Method: In this study, a quasi-experimental method (pretest-posttest with control group) was used. The sample of this study included 48 aggressive students (16 in experimental group 1 for behavioral cognitive play application, 16 in experimental group 2 or child- parent relationship based play application and 16 in the control group) who were selected by systematic sampling. Data gathering tools included the Nelson Anger Questionnaire, Spence Anxiety Questionnaire and Garnefski, and Kraaij's Emotional Cognitive Adjustment Questionnaire. For data analysis, Multivariate analysis of covariance MANCOVA, ANCOVA and independent groups' t-test were used.

Results: Findings revealed that using behavioral cognitive play and parent-child interaction based play reduced anger, anxiety, negative emotional cognitive regulation, and increased positive emotional cognitive regulation in aggressive students in the experimental groups (1) and (2) in comparison with the control group. It was found that the effectiveness of behavioral cognitive play and parent-child interaction based play on reducing anger, anxiety, negative emotional cognitive regulation, and increasing positive emotional cognitive regulation in aggressive students were not the same.

Conclusion: To sum up, it can be stated that parent-child interaction based play is more effective compared to behavioral-cognitive play.

Keywords: Behavioral Cognitive Play, Parent-child Interaction Based Play, Anger, Anxiety, Emotional Cognitive Regulation

Introduction

Aggression is one of the major problems in students today. In most cases, this disorder in students not only diminishes their individual social adjustment but also impairs the security and mental health of their families and other social groups. Today, aggression has grown dramatically among students and has caused many problems for their families [1]. It should be noted that students have several behavioral problems and only one of these behavioral problems is aggression [2]. Aggression can be demonstrated in behavioral (verbal, physical) and cognitive (showing hostility and emotional) features, and has negative consequences that cause fear, excitement, counter-aggression, loss of ability to restrain, feeling of loneliness, and mental health problems in their social lives [3]. Aggressive

students are hostile, and their primary purpose is to harm others, they enjoy making their victims, usually friends and family members suffer, and also demonstrate rage [4]. Moreover, aggressive students have a high level of anger. One of the problems of these students is the inability to control their rage burst [5]. This rage disrupts the psychological mechanism and causes offense, assault, aggression and hateful behaviors [6]. On the other hand, it should be noted that in aggressive students, anxiety has always been a reason of aggression. Actually anxiety in students can cause discomfort along with panic and impair cognitive, emotional, physical, and behavioral symptoms. As a result, they become worried, anxious, and tense [7]. Also, anxiety in aggressive students is reported to be higher than their normal counterparts [8]. It should also be said that emotional- cognitive regulation in aggressive students can play an important role in improving and reducing their aggression [8]. People who do not have good emotional-cognitive regulation are exposed to many socio-cognitive conflicts [9]. Akhlaghi [10] showed that positive and negative emotional-cognitive regulation may lead to anger reduction, and the negative emotional-cognitive regulation (e.g. rumination and self-blame) may result in anger increase. Many interventions are used to reduce cognitive problems and cognitive disorders in aggressive students. One of the most effective interventions that have been reported in numerous studies is the use of the game method. One type of game that can play an important role in improving aggression is cognitive-behavioral play for students. Cognitive-behavioral play has always sought to help students behave through facilitating to achieve new behavioral skills and providing experiences that make cognitive changes easier [11]. In previous studies [11], it has been concluded that cognitive-behavioral play has a high potential for reducing anxiety in children. In the cognitive-behavioral play, the education focuses on enhancing the child's self-control and learning a more adaptive response to coping with a specific situation [12]. It should also be noted that one of the games with positive impact which has been reported by numerous studies is the child-parent interaction game. One of the best ways to communicate with a child is, playing. Baggerly & Parker [13] stated that the play based on the parent-child relationship affects enhancing self-control, responsibility, expression of emotions, respect, self-acceptance, anger control, self-esteem, and decreasing depression and anxiety. Landreth [14] stated that playing for a child is the same as talking for an adult. During this game, the child has the opportunity to express and display his irritating feelings and internal problems [15]. Because of its focus on children, the parent-child interaction based game can be considered as a suitable method for communicating with children [16]. This game is focused on parent-child interaction and improvement of such a relationship depends on the inner self and the child's potential to become who he/she really is [17]. It has been shown that aggressive students have multiple emotional and cognitive problems, which lead to high levels of anger and anxiety, thus, communication with these students

through game playing can moderate their problems. It is notable that such game interventions lead to useful and significant results and positively balances impulsive behaviors. In the present study, we look for a type of game with greater impact on the improvement of aggressive students in order to use the best and most effective way for the reduction of their aggression level. Numerous studies have shown that among the practical methods of playing, parent-child interaction and cognitive-behavioral approaches are most commonly used and are considered as the most successful ones for children with behavioral problems. The importance of studying and using cognitive-behavioral play approach for aggressive students is its high capability for changing thoughts and not only being used as the alternative therapy but also empowering parents, reducing their feelings of guilt and hopelessness, and greater educational cooperation and interaction compared to when the therapist is working alone with the child [9, 14]. However, the corresponding gap is in the comparison of these two methods in reducing anger, anxiety and emotional cognitive regulation among aggressive students. Using the results of this research, educators and parents use the best and most effective game approach to reduce anger, anxiety, and cognitive emotion regulation in aggressive students. Therefore, the present study aimed to compare the effectiveness of cognitive-behavioral play and parent-child interaction based play on anger, anxiety and emotional cognitive regulation among aggressive students. In addition, we would like to determine if there is any difference between behavioral-cognitive play and parent-child interaction based play in terms of effectiveness on anger, anxiety, and emotional cognitive regulation among aggressive students.

Method

This study was conducted based on the quasi-experimental method (pretest-posttest with control group). The statistical population consisted of all male and female aggressive students aged 9-13 years old in elementary schools of districts 5 and 6 of Tehran districts over the academic year of 2018-2019. The sample also included 48 aggressive students selected by purposeful sampling through screening. The following inclusion criteria were considered: the age range of 9-13, aggression detection determined by Shahim's Relationship-Revealed Aggression Questionnaire [18], and the ability to participate in game sessions. After the call for participation in the survey, 351 students from two districts 5 and 6 (four elementary-schools including two females and two males schools) participated in the recall, out of which 55 students had scores above the cut-off point (a score of 48 and above) which indicated their aggression. Then, based on Morgan's table, after gender matching, 48 students (n=24 for each group of males and females) were selected by purposeful sampling. Next, the random assignment of participants was undertaken as follows: 16 subjects in control group, 16 subjects in experimental group 1 (cognitive-behavioral play) and 16 subjects in experimental group 2 (parent-child

relationship play).

The data gathering tools used in this study were as follows:

Children's Anger Questionnaire:

The Anger Questionnaire was developed by Nelson (2000). This test is for 6 to 16 year olds and covers first grade to upper secondary school, containing 39 items which are scored according to four options as follows: I don't notice = 1, it hurts me = 2, I'm really upset = 3 and I get angry = 4 [19]. In 2016, the validity of this tool was reported to be 0.44, through correlation with the aggression questionnaire at the confidence level of 0.001 [20]. The reliability of this questionnaire was reported to be 0.87 using Cronbach's alpha method.

Anxiety Questionnaire:

With 45 items, this questionnaire was designed in 1997 by Spence to assess the anxiety of 8 to 15 year old children based on the DSM-IV diagnostic and statistical classification. The scoring of this tool is based on a 4-point scale from 0 (never) to 3 (always) [21]. The validity of this questionnaire was reported to be 0.41 in [22] by correlation with Beck's Anxiety Questionnaire at the confidence level of 0.01 and its reliability was measured to be 0.84 in the present study by Cronbach's alpha method.

Emotional Cognitive Adjustment Questionnaire:

This questionnaire was developed [23] to be used in the pediatric community. It has 36 items and consists of two subscales including positive and negative emotional cognitive regulations. Scores range from 1 (almost never) to 5 (almost always). The negative and positive emotional cognitive regulation sub-scales comprise 16 and 20 items, respectively [24]. The validity is reported to be 0.42 and 0.57 for this subscale at the level of 0.001 through correlation with the adult's form [24]. In present study, the reliability of the questionnaire subscales was measured to be 0.81 and 0.83 by the Cronbach's alpha method.

Relative and Explicit Aggression Questionnaire:

This questionnaire was developed by Shahim [18]. It has 21 items scored by 1 (rarely), 2 (once a month), 3 (once in a week) and 4 (most often) [25]. The validity of the questionnaire is reported to be 0.40 by correlation with the children's anger questionnaire at the level of 0.01 and its reliability was measured to be 0.78 in present study through Cronbach's alpha method [26].

A summary of cognitive-behavioral game therapy sessions are presented below (each session=90 min) [16]:

1. Explaining the play sessions and the stories for children.
2. Drawing and displaying the animation.
3. Playing the game balloons of anger, jumping activities, and slicing.
4. Using the game balloons of anger, slicing and turtle.
5. Sculpturing by clay
6. Playing with clay and sculpturing and also slicing.
7. Playing finger dolls and bubbling.
8. Playing Domino
9. Playing Domino in groups and making stories.
10. Discussing thoughts, interests, needs and activities of students.

11. Discussing about a story by group members and researcher, and reading written stories.

12. Reviewing the game of former sessions, presenting final suggestions and implementation of post-test.

Also, a summary of parent-child play sessions is presented below (each session=90 min) [15]:

1. Expressing emotions through photos and pantomime.
2. Training muscle relaxation
3. Playing the game "emotional word".
4. Playing the game "guess my story".
5. Practicing drawing and giving feedback to mother.
6. Playing the game "emotional bubble" with mother.
7. Illustrating the Great Plains.
8. Playing baby-centered game with family and animal handheld dolls.
9. Anger relief, training on ways to cope with or resolve concerns, being controllable or not, and enhancing maternal skills in controlling aggression.
10. Acting anger relief, training ways to cope, giving emotional feedback to mother, resolving concerns, being controllable or not, and increasing mother's ability to control aggression.
11. Giving feedback on emotionally draining and revealing children's anger concerns, enhancing positive emotions, talking about wishes, loving child-mother fantasies, and raising awareness about play communication with kids.
12. Reviewing the sessions and presenting final suggestions for mothers.

Results

Table 1 presents mean and standard deviation of anger and anxiety among aggressive students in experimental groups 1 and 2 and control groups in pre-test, post-test and follow-up phases.

Given the Kolmogorov-Smirnoff test results on the normality of the post-test scores distribution assumption, the null hypothesis for the scores normal distribution for the two experimental groups 1 and 2 and the control group in terms of anger, anxiety and the positive and negative emotional -cognitive regulations is confirmed. Actually, the normality of the scores distribution in the pre-test in both experimental 1 and 2 groups as well as control group is confirmed.

Also, given Levine test results about the assumption of equality of research scores variances for two groups in the post-test phase, the test results for the variables anger, anxiety, positive and negative emotional cognitive regulations were not significant. Therefore, the variance of the two experimental groups 1, 2 and the control group were insignificant for the variables anger, anxiety, positive and negative emotional cognitive regulations. As a result, the assumption of homogeneity of variances is confirmed and the null hypothesis for equality of variances between the two groups in all the variables in the post-test is also confirmed.

Table 1. Mean and standard deviation of anger and anxiety as well as positive and negative emotional regulation among aggressive students in experimental groups 1 and 2 and control groups in pre-test, post-test and follow-up phases.

Variable	Group	Phase	Mean	Standard Deviation	no
Anger	Experiment 1	pre-test	122.93	14.75	16
		post-test	80.12	17.65	16
		follow-up	76.56	15.58	16
	Experiment 2	pre-test	144.31	9.24	16
		post-test	46.18	6.41	16
		follow-up	50.93	7.22	16
	Control	pre-test	125.43	12.42	16
		post-test	127.88	14.76	16
		follow-up	125.19	17.74	16
Anxiety	Experiment 1	pre-test	116.43	11.78	16
		post-test	66.06	11.97	16
		follow-up	53.56	14.27	16
	Experiment 2	pre-test	120.81	10.81	16
		post-test	41.56	15.02	16
		follow-up	32.01	11.51	16
	Control	pre-test	115.44	9.43	16
		post-test	116.94	13.16	16
		follow-up	114.01	16.76	16
Positive Emotional Cognitive Regulation	Experimental 1	pre-test	35.18	7.85	16
		post-test	66.10	10.27	16
		follow-up	73.12	9.06	16
	Experimental 2	pre-test	33.68	7.10	16
		post-test	74.81	6.80	16
		follow-up	87.18	6.12	16
	Control	pre-test	36.93	7.37	16
		post-test	35.50	6.55	16
		follow-up	38.37	6.74	16
Negative Emotional Cognitive Regulation	Experiment 1	pre-test	65.56	7.75	60
		post-test	40.50	10.48	60
		follow-up	33.06	6.01	60
	Experiment 2	pre-test	62.68	7.56	60
		post-test	29.56	7.57	60
		follow-up	22.81	5.04	60
	Control	pre-test	61.31	7.29	60
		post-test	58.50	7.35	60
		follow-up	59.56	7.68	60

Table 2. Comparison of the application of cognitive-behavioral playing method and parent-child interaction based playing method on anger, anxiety and emotional- cognitive regulation in aggressive students in post-test phase.

Variable	Mean	Experimental Groups	t	df	Significance Level
Anger	80.12	Cognitive-Behavioral Play(expriment1)	7.22	30	0.001
	46.18	Parent-Child Interaction Based Play(expriment2)			
Anxiety	66.06	Cognitive-Behavioral Play(expriment1)	5.10	30	0.001
	41.56	Parent-Child Interaction Based Play(expriment2)			
Positive Emotional- Cognitive Regulation	66.10	Cognitive-Behavioral Play(expriment1)	2.84	30	0.008
	74.81	Parent-Child Interaction Based Play(expriment2)			
Negative Emotional- Cognitive Regulation	40.50	Cognitive-Behavioral Play(expriment1)	3.38	30	0.002
	29.56	Parent-Child Interaction Based Play(expriment2)			

As shown in Table 2, for the anger and anxiety variables, t-value was 7.22 and 5.10, respectively, with a degree of freedom of 30 which is significant at $p < 0.001$. In addition, for positive and negative emotional cognitive regulation variables t is 2.84 and 3.38, respectively, with a degree of freedom of 30, which are significant at $p < 0.008$ and $p < 0.002$, indicating a significant difference between the effectiveness of behavioral-cognitive play and parent-

child interaction based play in terms of anger, anxiety, positive and negative emotional cognitive regulations among aggressive students. Also, regarding the mean values, parent-child interaction based play method in comparison with the cognitive-behavioral play is more effective on reducing anger and anxiety, and improving positive and negative emotional cognitive regulations among aggressive students.

Table 3. Multivariate covariance analysis of the mean scores of anger, anxiety, positive and negative emotional cognitive regulations in experimental groups (1) and control with pretest control.

Test	Value	Degree of Freedom	Degree of Freedom Error	F	P	Effect size	Statistical Power
Pilot Effect Test	0.93	88.55	4	23	0.001	0.93	1
Wilkes Lambda Test	0.06	88.55	4	23	0.001	0.93	1
Hotelling Effect Test	15.40	88.55	4	23	0.001	0.93	1
Roy's Largest Root Test	15.40	88.55	4	23	0.001	0.93	1

As shown in Table 3, based upon the pre-test phase, high levels of all tests indicate a significant difference between aggressive students in the experimental group (1) and control group in terms of anger, anxiety, positive and negative emotional cognitive regulations. ($F = 88.55$ and $p < 0.001$).

As indicated in the above table, upon pre-test phase, a significant difference is seen between aggressive students in the experimental group 1 and the control group in terms of anger, anxiety, negative and positive emotional cognitive regulations. In other words, the use of behavioral-

cognitive play decreased anger, anxiety, negative emotional cognitive regulation and increased positive emotional cognitive regulation with respect to their corresponding mean values among the aggressive students of the experimental group) compared to the control group.

As shown in Table 5, with pre-test control, significant levels of all tests indicate that there is a significant difference between aggressive students in experimental group 2 and control in terms of anger, anxiety, positive and negative emotional cognitive regulations. ($F = 93.01$ and $p < 0.001$).

Table 4. One-way covariance analysis results of the mean of post-test anger, anxiety and positive and negative emotional regulation scores of experimental groups and control with pre-test control.

Intervention	Source of Variation	The sum of Squares	df	The Mean of Squares	F	Significance Level	Effect Size	Statistical Power
Anger	Pretest	104.99	1	104.99	3.57	0.09	0.15	0.22
	Group	14051.01	1	14051.01	61.75	0.001	0.70	1
	Error	5916.18	26	227.54				
Anxiety	Pretest	3.67	1	3.67	0.02	0.88	0.001	0.05
	Group	16453.02	1	16453.02	92.88	0.001	0.78	1
	Error	4605.25	26	177.12				
Positive	Pretest	29.27	1	29.27	0.61	0.44	0.02	0.11
	group	6400.76	1	6400.76	133.81	0.001	0.83	1
	error	1243.63	26	47.83				
Negative	pretest	60.61	1	60.61	0.82	0.37	0.03	0.14
	group	2227.26	1	2227.26	30.35	0.001	0.53	1
	error	1907.16	26	73.37				

Table 5. Multivariate covariance analysis results of the mean of post-test anger, anxiety, positive and negative emotional cognitive regulations scores in experimental group 2 and control with pre-test control.

Test	Value	Degree of Freedom	Degree of Freedom Error	F	P	Effect Size	Statistical Power
Pilot Effect Test	0.94	93.01	4	23	0.001	0.94	1
Wilkes Lambda Test	0.05	93.01	4	23	0.001	0.94	1
Hotelling Effect Test	16.17	93.01	4	23	0.001	0.94	1
Roy's largest Root Test	16.17	93.01	4	23	0.001	0.94	1

Table 6. One-way covariance analysis results of the mean of post-test anger, anxiety, positive and negative emotional regulation scores of experimental group 2 and control with pre-test control.

Intervention	Source of Variation	The sum of Squares	df	The mean of Squares	F	Significance Level	Effect Size	Statistical Power
Anger	pretest	142.19	1	142.19	5.12	0.29	0.04	0.17
	group	30122.90	1	30122.90	238.50	0.001	0.90	1
	error	3283.81	26	126.30				
Anxiety	pretest	0.05	1	0.05	0.001	0.98	0.001	0.05
	group	25539.94	1	25539.94	143.98	0.001	0.84	1
	error	4611.82	26	177.37				
Positive	pretest	99.08	1	99.08	2.64	0.11	0.09	0.34
	group	5183.09	1	5183.09	138.24	0.001	0.83	1
	error	974.80	26	37.49				
Negative	pretest	4.56	1	4.56	0.07	0.78	0.003	0.12
	group	3297.41	1	3297.41	53.20	0.001	0.67	1
	error	1611.25	26	61.97				

As presented above, with pre-test control, there is a significant difference between aggressive students in the experimental group 2 and the control group in terms of anger, anxiety, negative and positive emotional cognitive regulations. In other words, the use of parent-child interaction based play in the aggressive students of the experimental group 1 in comparison to the control group, decreased anger, anxiety, negative emotional cognitive regulation and increased positive emotional cognitive regulation.

Discussion

The purpose of this study was to compare the effectiveness of behavioral -cognitive play and parent-child interaction based play on anger, anxiety and emotional cognitive regulations in aggressive students. The results showed that the application of behavioral -cognitive play and parent-child interaction based play reduced anger, anxiety, negative emotional cognitive regulation, and increased positive emotional cognitive regulation in aggressive students in experimental groups 1 and 2. However, results showed that the use of parent-child interaction based play was more effective in reducing anger, anxiety, negative emotional cognitive regulation, and increasing positive emotional cognitive regulation in aggressive students compared to behavioral -cognitive play. The results of this study is supported by previous research [7], which have shown that behavioral -cognitive play approach can reduce anxiety. Momeni [22] has revealed that behavioral -cognitive play decreases students' anxiety and is considered as an effective approach. It has been concluded by Jannatian [27] that parent-child interaction based play has a significant effect on decreasing anger severity in boys with anxiety. Also, Akbari and Rahmati [26] found that behavioral -cognitive play was effective in reducing child aggression. Sadatmostafavi et al. [17] showed that parent-child interaction based play reduces aggressive behavioral problems. Han [28] showed that emotional regulation evolved and that behavioral -cognitive play had a positive effect on decreasing negative emotional cognitive regulation and on enhancing positive emotional cognitive regulation. In a study by Bagerley and Parker [13], it has been suggested that parent-child interaction based play is effective in decreasing anger levels. To sum up, it can be stated that aggressive students have multiple behavioral problems and their anger and anxiety disrupts their interactions with their family and peer groups and in some way they are incompatible. This process disturbs their emotional regulation and causes more anger and aggression. The present study found that parent-child interaction based play and behavioral -cognitive play can reduce anger, anxiety, negative emotional cognitive regulation, and enhance positive emotional cognitive regulation in aggressive students.

Previous research has shown that children who are abused and rejected by their parents suffer from low self-esteem, inadequate perception of competence, and lack of motivation. There is also a high likelihood of these children having impaired emotion regulation and forming

stable vulnerable personality patterns [29].

Playing is an effective way to reduce the symptoms of extravasation in children. During play, children develop communication and social skills, and in such a framework, they can unearth or resolve their own feelings and emotions by repeatedly producing important issues and events [30].

As Chinekesh et al., [31] have pointed out, play is an attempt to co-ordinate physical and social processes with self, because by playing, feelings, frustrations, anxieties, and negative emotional dimensions are moderated. It can be stated that the use of behavioral -cognitive play by creating a new behavioral skill in students, helps them behave more consistently, reduces their anger against failure and increases their self-control. Thus, by learning more adaptive responses against failure through playing, stress and anxiety reduces in these students. Also, it has been observed that the ability to monitor their emotions and also the capability to cope successfully with demands, needs, and environmental pressures in dealing with negative emotions were strengthened. It can be said that in this method, stimulating the imagination technique, positive reinforcement and shaping behavior through game caused tension, hostile behavior and anger of aggressive students to be controlled and moderated. Actually, it is believed that behavioral -cognitive play deals with changing thoughts. In this way, aggressive students were assisted in identification and modification of their perceptions about anger, anxiety, negative and positive emotions, and also to replace inconsistent behavior and thinking with adaptive behavior and thoughts. Furthermore, it should be noted that the application of parent-child interaction based play for aggressive students caused the parent to pay the child feelings into attention, respect his/her decisions and follow them through the game. This type of game allowed the aggressive student to express his/her emotions, thoughts, desires, and anger. On the other hand, since he/she was provided with the opportunity to express his/her abusive feelings and problems through the game, his/her anger and anxiety reduced and thus his/her emotions were adjusted. In explaining the results, there was a significant difference between the effectiveness of behavioral-cognitive play and parent-child interaction based play in terms of anger, anxiety, positive and negative emotional cognitive adjustment in aggressive students. In addition, it became clear that the parent-child interaction based play in comparison to the behavioral-cognitive play is more effective in decreasing anger and anxiety, and cognitive regulation of positive and negative emotions among aggressive students. It can be argued that during the parent-child interaction based play, aggressive students were more able to externalize their feelings and behaviors toward their parents compared to those employing behavioral-cognitive play. Moreover, such a parent-child interaction based play in which the parent plays a central role gave these students and parents a greater understanding and acceptance of each other through the game, reinforced their emotion control to show systematic planning and positive evaluation of their

emotions. The parents' presence encouraged them more, and the parents in this model were more effective rather than behavioral-cognitive play, in shaping appropriate behavior, reducing conflict, emotional tension and stressful responses, reducing anxiety, anger, negative emotional cognitive regulation and increasing positive emotional cognitive regulation among their aggressive students.

Conclusion

According to the above mentioned facts, it can be stated that parent-child interaction based play is more effective compared to behavioral-cognitive play. This is due to the fact that parents have a strong emotional connection with their children and its focus is on parent-child interaction.

The limitations of the present study were as follows: inability to control socio-familial and economically important variables affecting research variables, and lack of homogeneity of research population in terms of general characteristics in both experimental and control groups.

It is suggested that the aggressive students' parents and the consulting centers pay more attention to the role of playing (i.e. parent-child interaction based play and behavioral-cognitive play). In addition, the specialized centers of play are recommended to use parent-child interaction based play more often due to its better effectiveness in reducing anxiety, anger, negative emotional cognitive regulation, and enhancing positive emotional cognitive regulation.

Conflict of Interest

Authors declare no conflict of interests.

Ethical Approval

All ethical principles were considered in this article. The participants were informed about the purpose of the research and its implementation stages. They were also assured about the confidentiality of their information. Moreover, they were allowed to leave the study whenever they wish, and if desired, the results of the research would be available to them.

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