

The Effectiveness of a Play-Based Program in Reducing Aggressive Behavior among Children from Dismantled Families

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ABSTRACT

The current study is concerned with studying the effectiveness of a play-based program in reducing aggressive behavior among children from dismantled families. The study population consisted of (20) children from Zarqa Governorate, and the study sample consisted of (20) children who were chosen randomly. To obtain the results of the study, the sample was divided into an experimental sample consisting of (10) children, and a control sample consisting of (10) children. The study tackled the issue of effectiveness of a play-based program in reducing aggressive behavior among children from dismantled families. The researchers designed a scale for measuring aggressive behavior in children, and the scale obtained good levels of validity and reliability. A statistical analysis was conducted. The results showed, after applying the program, the effectiveness of the program in reducing aggressive behavior among children. The results were discussed in relation to their consistency with previous studies, and several recommendations were made to assist this group in adapting to society.

الكلمات المفتاحية:

السلوك العدواني

برنامج القائم على اللعب

الأطفال من الأسر المفككة

الأطفال

ملخص

تهدف الدراسة الحالية إلى معرفة فاعلية برنامج قائم على اللعب في خفض السلوك العدواني لدى الأطفال من الأسر المفككة. تكون مجتمع الدراسة من (20) طفلاً من محافظة الزرقاء، وتم اختيار عينة الدراسة بشكل عشوائي لتضم (20) طفلاً. ولغرض الحصول على نتائج الدراسة، تم تقسيم العينة إلى عينة تجريبية مكونة من (10) أطفال، وعينة ضابطة مكونة من (10) أطفال. تناولت الدراسة موضوع فاعلية البرنامج القائم على اللعب في خفض السلوك العدواني لدى الأطفال من الأسر المفككة. قام الباحثون بتصميم مقياس لقياس السلوك العدواني لدى الأطفال، وقد أظهر المقياس مستويات جيدة من الصدق والثبات. كما أُجري تحليل إحصائي للبيانات. وأظهرت النتائج بعد تطبيق البرنامج فاعليته في خفض السلوك العدواني لدى الأطفال. وقد ناقشت النتائج في ضوء توافقها مع الدراسات السابقة، وخرجت الدراسة بعدد من التوصيات لمساعدة هذه الفئة على التكيف مع المجتمع.

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1 Introduction

The family is considered the primary nucleus in building societies; it is the nurturing environment that prepares the child to learn the norms, values, habits, and culture of their society. It is within the family that the child's social, emotional, and behavioral needs and personality traits are developed. The family plays a significant role in meeting the child's basic needs, and especially the father serves as a role model for the child (Al-Qudah, R., Taimah, F. (2021).

Families face obstacles that affect their cohesion from within, leading to disintegration and the disruption of their social role, diverting them from their positive role in providing proper child-rearing. This disintegration takes various forms, including divorce, which is the most common in

Jordan, as well as the death of one of the parents . Ghaith, M., Saad, I. (2011).. Divorce is caused by the end of the spiritual and social bond, leading to psychological and social problems and disturbances in the child's personality. Similarly, the death of one of the parents deprives the child of affection, care, and upbringing. Petrus argues that children raised in an unstable family environment suffer from emotional, behavioral, and social problems Petrus, P. (2021). Additionally, Naima points out that family disintegration resulting from divorce leads to the emergence of aggressive behavior. Aggressive behavior is considered one of the most prevalent issues among children from dismantled families Petrus, P. (2021). Pandora has indicated that aggressive behavior is learned and is caused by frustration from the environment. Forms of aggressive behavior include hitting, shouting, hair pulling, disobedience, and deliberate destruction.

Aggression manifests in several forms, including (1) Physical aggression, in which a person physically harms another or oneself, such as hitting, pushing, or using weapons; (2) Verbal aggression, where the limits are crossed in speech, such as insults and slander, and a person's mouth is often the first tool used to act aggressively against others. This type of aggression can appear in the very early stages of development; (3) Symbolic aggression, which takes the form of insults through gestures or looks that signify contempt for others, mocking them, and causing harm to them Abdelazim, H. (2013). Human beings are born with a limited number of behaviors, which are called reflexes, and human behavior gradually begins to evolve after birth. This evolution depends on both genetics and experience. Experience is the final result of the trial-and-error process from which the child learns to mimic the behaviors of others Zuraikat, I. (2007). The main factors that drive a child towards undesired behavior are negative past experiences, feelings of inadequacy, failure, and constant frustration Bandurs, A., Ross, D. & Sh. Ross. (1963). Moreover, in 1985 Huaian and Dawod Huaian, O., Dawod, N. (2015). stated that children raised in a tumultuous family environment experience behavioral aggression issue. Therefore, there is a strong correlation between aggressive behavior and the severity of family disturbances.

Many explanatory theories have been proposed regarding aggressive behavior, such as Horney's theory, which suggests that aggression is primarily a response to anxiety and a sense of helplessness in a hostile world, leading to one of three responses: moving towards others, moving against others, or moving away from others Schultz, D., Schultz, S. (2017). The catharsis theory, on the other hand, views aggressive behavior as a release of pent-up emotions to prevent an explosive behavioral outburst. In 2021 Dararja Dararja, A. (2021). concluded that family disintegration leads to aggressive behavior, and this aggressive behavior affects the psychological well-being of many children, affecting their future and relationships with others. On the other hand, in 2018, Shaheen and Sabah Shaheen, M., Sabah, S. (2018). stated that family disintegration resulting from ongoing marital conflicts, divorce, or neglecting parental responsibilities and ignorance of proper upbringing and principles, creates a sense of injustice in the child and a desire for revenge, leading to the creation of an aggressive environment. Ramadan pointed out that frustration precedes aggressive behavior and may result from imitating the behavior of parents or experiencing social failures, such as educational delays and rejection by society Ramadan, M. (2005). On the other hand, Aleayib & Kherh Aleayib, S., Kherh, B. (2013). believe that the main causes of aggressive behavior are learning through observation and imitation within the environment, leading to rebellion against maternal authority and adopting aggressive behavior. Numerous studies have emphasized the importance of play therapy in extinguishing aggressive behavior in children. Since play is one of the behavioral patterns practiced by humans to obtain enjoyment, entertainment, social interaction, and positive attitudes, it also contributes to the development of the child's personality in various aspects: physical, mental, behavioral, and social Jaradat, N., AbuEswailem, D. (2023). Play helps reduce aggressive behavior and promotes social behavior. Among these studies is the research conducted in 2016 Jarareh, J., Mohammadi, A., Nader, M. & Akbar, S. (2016). which demonstrated the effectiveness of group play therapy in enhancing creativity and controlling aggressive behavior in children. The results of the study showed that play therapy significantly promotes children's creativity and reduces their aggression. Similarly, in 2015, Al-Dlaeen Al-Dalaeen, A. (2015). found that play therapy helps reduce chaotic aggressive behavior symptoms in children with learning difficulties. Additionally, in 2015, Zand and Nekah Zand, E. & Nekah, S. (2015). concluded that play therapy has an effective

impact on reducing aggressive behavior. Moreover, in 2014, Garalleh Garralleh, I. (2014). indicated in their study that play-based counseling programs play a significant role in reducing aggressive behavior among orphaned children in Jeddah city. Similarly, Ray demonstrated the effectiveness of play programs in treating disturbed or tense relationships between children and their parents, as well as reducing psychological stress by improving children's mental health Ray, D. C. (2008). Furthermore, Ayash highlighted the effectiveness of play-based counseling programs in reducing aggressive behavior among children in shelter institutions in the Gaza Strip Ayash, J. (2009). The results of Al-Wawi's study emphasized the importance of a play-based training program using dramatic techniques in reducing aggressive behavior among eighth-grade students in Hebron. Play helps children release internal tensions and acquire various social skills to interact with their environment and bring them happiness Al-Wawi, O. (2012). On the other hand, a study by Naseri and Ta'awinat demonstrated the effectiveness of a behavioral program based on certain sports and recreational activities in reducing aggressive behavior in intellectually disabled children who are capable of learning Zawawi, N. & Tawinat, A. (2021). Al-Zahrani highlighted the importance and effectiveness of play-based emotional and behavioral programs in reducing aggressive behavior among middle school students in Al-Baha region Al-Zahrani, S. (2021). Similarly, in 2018, Bilarabi Bilarabi, J. (2018). emphasized the significance of behavioral counseling programs in reducing aggressive behavior among secondary school students. Lee, Hallberg & Hassard demonstrated the effectiveness of play-based programs in reducing aggressive behavior among university students Dong, Y. L., Hallberg, E. T., & Hassard, J. H. (1979). Khalidi's research emphasized the contribution of play activities in developing social interaction skills, reducing aggressive behavior, and improving psychological harmony among kindergarten children from the perspective of educators Khalidi, F. (2014). Furthermore, in 2017, Ramdani Ramdani, H. (2017). indicated that play therapy plays an active role in reducing aggressive behavior among kindergarten children in Algeria.

Based on the previous presentation, it is evident to the researchers that most previous foreign and Arabic studies have highlighted the importance of play-based counseling programs in reducing aggressive behavior among children. Some studies described the characteristics of children from dismantled families, while others discussed the impact of sports on the social aspect. Some studies focused on the effectiveness of planned sports and their impact on regulating psychological stress. Others addressed play in general. However, these studies and programs did not comprehensively and integrally address the impact of play on extinguishing aggressive behavior among children from dismantled families in the middle childhood stage. Many studies have emphasized the importance of implementing various training programs that cater to this specific group. Therefore, the researchers chose to investigate the effectiveness of a play-based program in reducing aggressive behavior among children from dismantled families.

1.1 The Problem of the Study

The problem of the study lies in the existence of a significant number of children from dismantled families in society. The latest studies and reports from the Sharia Courts Department in Jordan indicate that 56% of married women under the age of thirty have experienced divorce at least once. This report is a warning sign regarding the foundation of families and society, as it contributes to the increasing phenomenon of dismantled families. Moreover, these individuals lack programs that facilitate their independence, even in basic matters. In light of the needs of this group for special care and programs, as they perceive life differently from others, and their viewpoints are influenced by their circumstances and the support they receive from family and society. This group requires counseling and training services to help them overcome their aggressive behavior. Play-based sports programs and others provided for this group are significant indicators of service quality. This study aims to provide a training program to reduce aggressive behavior in children from dismantled families within their natural environment, without the need for isolating them from others or providing services in specialized centers. This is achieved by adapting the natural environment through play to mitigate these behaviors, since most behavioral problems tend particularly to manifest in school-age children. Consequently, these behaviors can impact the child's academic and social performance. In an effort to achieve this goal, this study aims to develop a play-based program for children with aggressive behavior, specifically addressing the following question:

What is the effectiveness of a play-based program in reducing aggressive behavior among children from dismantled families?

1.2 Study Hypothesis:

There are no statistically significant differences at ($p < 0.05$) between the average performance of the experimental sample and the control sample in favor of the experimental sample on the post-measurement.

1.3 The Importance of the Study

The importance of the current study lies in its attempt to assist children from broken families in integrating into society by shedding light on the importance of providing care for this group. It directs researchers' attention toward making efforts to integrate this group into society and to extinguish aggressive behavior. Additionally, it is expected to raise awareness among parents about the dangers of family disintegration.

Understanding the nature of the relationship between family disintegration and aggression is utilized in developing an aggression behavior scale and constructing a play-based program to extinguish aggressive behavior. The results of the study could be utilized in addressing deficiencies in the treatment of aggressive behavior in children and in working towards strengthening the relationship between this group and society.

1.4 Objectives of the Study

Understanding the role of play-based programs in extinguishing aggressive behavior among children from dismantled families.

1.5 Study limitations

The study is subject to the following limitations:

Spatial boundaries: This study deals with children from dismantled families in the Zarqa governorate in Jordan.

Human Limitations: The study was limited to (20) children from dismantled families in Zarqa governorate.

Time limitations: The study was applied in the period between 1-9-2023 to 30-5-2024.

1.6 Study Terminology

Operational definitions of terms:

- Children from dismantled families: It refers to every student from a dismantled family in the middle stage.
- Aggressive behavior: A collection of behavioral and personality patterns that include self-aggression, aggression towards others, and destruction of personal and others' belongings.
- Play-based program: It is a structured and organized set of steps based on theories, techniques, and principles of psychological counseling. It includes a range of information, experiences, skills, and various activities provided to individuals over a specific period. The program aims to assist individuals in modifying their behaviors and acquiring new skills that lead to extinguishing aggressive behavior and overcoming the challenges they face in life. Its goal is to help children from dismantled families adapt to their environment.
- Play-based activities: A set of play-based sports activities and exercises.

2 Methodology

The procedures include a description of the study sample, the tools that were applied to the sample, the research steps, its procedures, and the statistical design that the researchers followed in processing the data.

Study population: The current study population consisted of (20) children of dismantled families in Zarqa governorate in Jordan, and the sample was randomly distributed into two groups, the experimental group ($n = 10$) and the control group ($n = 10$).

2.1 Study Tools

First: The scale of the aggressive behavior scale. (Prepared by the researchers).

The method of designing the scale of the aggressive behavior scale involved the following steps:

1. The researchers reviewed the literature, studies, and previous research that focused on the field of study and examined the measures that were designed in this field, including the measure of the scale of aggressive behavior.

2. The scale in its initial form in light of the dimensions included in the program was prepared.

3. The scale was presented to a group of specialized arbitrators to ensure the suitability of the scale items. The percentage of agreement between the arbitrators reached (82%).

4. The scale was then modified according to the arbitrator's opinions.

5. The scale of aggressive behavior scale consisted of (30) items distributed to (3) levels.

Scale Description: The scale of aggressive behavior for children.

Scale Validity: The indications of the validity of the scale were verified as follows:

Content Validity: The scale was presented to a group of specialists in the field of special education and psychology, and the results showed that the arbitrators agreed with a percentage of (84%) of the extent to which the paragraphs of the scale corresponded to its content and objectives.

The validity of the internal consistency: the internal consistency was calculated for the three domains, so the result was the average correlation coefficient for the dimension of self-aggression is (0.79), for the dimension of aggression towards others is (0.824), and for the dimension of destruction of property is (0.812). Table (1) shows these values.

Table 1. A Correlation Coefficient of Aggressive Behavior Scale for Children

No.	Domain	Correlation coefficient	significance level
1	Self-aggression	0.79	0.1
2	Aggression towards others	0.824	0.1
3	Destruction of property	0.812	0.1
	Total score	0.806	0.1

It is clear from Table (1), that all the paragraphs in each level are statistically significant at 0.1, as well as the level on the total score is statistically significant, which indicates that the scale has a high degree of consistency.

Scale stability: The stability of the scale was verified in two ways:

1. The method of calculating the stability coefficient: To assess the internal consistency of the scale, the stability coefficient was computed, specifically using Cronbach's alpha. The resulting value of Cronbach's alpha for the scale was determined to be 0.806, which is considered acceptable and provides confirmation of the scale's consistency across the paragraphs.

2. Split-half method: The scale items were separated into two groups: the first group consisted of the odd paragraphs, while the second group included the even paragraphs. A correlation coefficient was then computed to measure the relationship between the scores of the sample members in these two groups. The resulting correlation coefficient between the degrees of the sample members in the two groups was found to be 0.801, indicating a strong correlation between them.

Table 2. bility Coefficient of the Aggressive Behavior Scale for Children

No.	Domain	Correlation coefficient	Spearman Brown
1	Self-aggression	0.636	0.778
2	Aggression towards others	0.752	0.842
3	Destruction of property	0.642	0.783

Total score	0.677	0.801
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It is clear from Table (2), that the values of the Spearman-Brown equation are high, which indicates that the scale is characterized by a high degree of stability by the split-half method.

Scale correction key:

For each item on the scale, respondents provide two options: "yes" or "no." The scoring system assigns a value of (1) for each "yes" response and a value of zero for each "no" response. The raw scores are then accumulated separately for each dimension and subsequently for the entire scale.

II.2 Sources for building the measurement tool:

The researchers benefited from reviewing educational literature and previous studies in this field. They reviewed and looked at the scales of aggressive behaviors for children that were previously designed in this field, including the scale of aggressive behavior for children. This scale was developed by Alshihri & Shraim, the scale consists of 42 items divided into three levels, with each level containing 14 items. Murad and Sulaiman's test from their book "Tests and Scales in Psychological and Educational Sciences: Preparation Steps and Characteristics" Murad, S. & Sulaiman, A. (2017). and Hamdi Abdelazim's Aggressive Behavior Scale Abdelazim, H. (2013). are included in the Encyclopedia of Psychological Tests and Scales, along with other scales found in various dissertations. The researchers consulted experts and trainers who work in this field and collected relevant studies and programs prepared for children in the field of aggressive behavior. Secondly, A play-based program to reduce aggressive behavior among children from dismantled families. (Prepared by the researchers). The implementation of the program took nine months, with two sessions per month, and the implementation took place in the period from 1-9-2023 to 30-5-2024 AD.

Program sample: The current study includes a sample of (20) children from dismantled families in Zarqa Governorate – Jordan. The sample was selected based on information obtained from schools regarding aggressive behaviors in children who met the sample criteria, the conditions for selecting the sample were as follows:

1. The child must be from a dismantled family in the intermediate stage.
2. He should not suffer from any other disabilities.
3. He must be male.

Program content: In this study, the play-based program comprised eighteen sessions, which were carefully designed and conducted logically and sequentially. To ensure the content's validity, a group of specialists reviewed the program, and their feedback was taken into consideration during the program's final preparation. The program was then executed over a span of nine months, with a frequency of two sessions per month. Each session was scheduled for a duration of 4 hours. Throughout the implementation of the program, the following techniques were employed:

1. Dialogue: The researchers utilized a technique known as dialogue to effectively manage conversations between themselves and the participants. This method provided an organized and facilitated platform for participants to express their ideas and opinions. The researchers skillfully guided the discussions to help develop the participants' ideas and deliver the intended message. This technique was employed to establish a productive and constructive dialogue style with the participants, enabling the researchers to gain insights into their thoughts and perspectives.

2. Modeling: The researchers employed a technique called modeling, wherein a concrete or imagined model was presented to individuals. The purpose of this method was to provide information about the presented model and induce changes in their behavior. It aimed to instill new behaviors, enhance existing ones, or modify certain behaviors. Through this technique, the researchers focused on developing positive aspects of participants' personalities, promoting self-acceptance, and nurturing their independence and ambition.

3. Discussion: The researchers utilized a method called discussion, which involved presenting participants with specific situations that required their input. This technique offered them a platform to exchange ideas and propose solutions, guided by the researchers. The purpose of employing this

technique was to foster problem-solving skills among the participants and assist them in developing their ambitions.

4. Reinforcement: The researchers employed a method known as reinforcement, which involved strengthening the desired behavior of the participants using rewards. This method was based on conditioning the behavior by providing rewards when the behavior was performed. During the program sessions, the researchers utilized moral reinforcement to encourage and reinforce positive thoughts and behaviors that were relevant to the participants' nature.

5. Emotional Discharge: The researchers employed a technique called emotional discharge, which involved facilitating individuals to express themselves freely and without limitations during various written events, including their experiences, motivations, and emotional conflicts. It was observed that when individuals discharged these emotions, the symptoms of neurosis subsided. This technique was utilized to assist participants in releasing their feelings, experiences, motivations, and struggles in their lives. By doing so, they were supported in overcoming these ideas and conflicts and subsequently enhancing their technical skills.

6. Confrontation: This approach emphasizes the significance of cognitive and mental aspects in shaping stress response, placing more importance on them than on environmental factors and stimuli. By altering an individual's thinking patterns regarding stressful situations, it becomes possible to mitigate the severity of their stress experience and modify their response to such situations. Through this technique, individuals are aided in developing new constructive responses, replacing thoughts marked by frustration and a lack of self-confidence.

II.3 Summary of the program sessions:

The training program included several games aimed at reducing aggressive behavior in children. These games are focused on developing various skills in them, and some of these games are:

1. Building Self-Confidence Game.
2. Emotion Box Game.
3. Social Skills Game.
4. Building Relationships Game.
5. Feelings Charades.
6. Team Building Puzzle.
7. Story in a Bag.
8. Empathy Circle.
9. Football (Soccer).
10. Swimming.

Art and Craft Activities, appendix number (1) provides a detailed explanation of these games, including their descriptions and application methods.

II.4 Study procedures

To achieve the objectives of the study, the following steps were carried out:

Establishing the theoretical framework for the research involved an extensive review of educational literature, studies, and previous research related to the variables under investigation.

Building the scale: the construction of the aggressive behavior scale for the children was accomplished after a comprehensive examination of existing scales and a thorough review of relevant studies in the sub-fields of the scale.

Validity of the scale: The content validity of the scale was assessed by presenting it to a panel of experienced arbitrators with backgrounds in special education, and behavior modification experts from both academia and the field. Their opinions, with an agreement rate of 84%, were taken into consideration. Internal consistency was evaluated across three domains, resulting in average correlation coefficients of 0.79 for self-aggression, 0.824 for aggression toward others, and 0.812 for destruction of property.

The stability of the scale: The stability of the scale was assessed using the Cronbach alpha equation, yielding a value of 0.806, which is considered acceptable and confirms the consistency of

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the scale items. Additionally, stability was evaluated through the semi-partition method, comparing scores of respondents between two groups of scale items (odd paragraphs vs. even paragraphs), showing high correlation coefficients.

Selection of the sample: The research sample was intentionally selected based on specific criteria established by the two researchers to align with the research conditions.

Building the training program: The training program for decreasing aggressive behavior in children was formulated after a thorough analysis of existing programs offered to this population.

Application of the scale: The scale was applied to the study participants to assess their performance and identify individual strengths and weaknesses.

Application of the program: The training program was initiated on the experimental sample, and conducted by the researchers themselves.

Duration of training: The training program spanned a duration of nine months, with two sessions per month, taking place between 1st September 2023 and 30th May 2024.

Statistical treatment: The data collected was subjected to appropriate statistical analysis, and the results of the study were obtained. These findings were then discussed, and recommendations were made based on the study's outcomes.

Study application procedures:

Experimental design:

- The experimental design of the study is based on two groups, an experimental and a control group.
- The tools used in the study were applied to the two groups before the start of the experiment.
- The experimental group is exposed – alone – to the experiences of the proposed program (n = 10).
- The control group (n = 10) is left without applying the proposed program.
- At the end of the proposed program period, the study tools were re-applied to the two groups.
- Pre-measurement and comparison between the two groups.
- Post-measurement and comparison between the two groups.
- Pre- and post-measurement and comparison for each group separately of the effectiveness of each independent program.

Table 3. *Experimental Design Used in the Study.*

Post-measurement	proposed program	Pre-measurement	Group	random distribution
O2	X	O1	G	R
O2	X	O1	G1 Experimental	R
O2	No intervention	O1	G2 Control	R

Equivalence of the Experimental and Control Groups

The researchers ensured comparability between the experimental and control groups regarding aggressive behavior variables. Additionally, they confirmed the similarity of the two groups in terms of the levels of aggressive behavior during the pre-measurement phase. Prior to implementing the program, the mean and standard deviations of aggressive behavior scores were calculated for both the experimental and control groups. The results of this analysis are presented in Table (4) below.

Table 4. *Comparison between the Arithmetic Mean of the Control and Experimental Sample before Applying the Program.*

	Variable 1	Variable 2
Arithmetic mean	4.8	4.8
Variance	9.6	7.1
Sample volume	10	10
Pearson correlation coefficient	0.41	
Degrees of freedom	9	
t statistic	0.15	
Critical t value	1.72	

Statistical significance level (observed t-value)	0.86
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It is clear from Table (4) that there are no statistically significant differences between the degrees of aggressive behavior among the members of the experimental and control groups at the level of significance ($\alpha=0.05$), and this indicates that the members of the two groups are equal in the degrees of aggressive behavior before applying the program.

Statistical methods:

1. Arithmetic mean.
2. T-test to calculate the significance of differences between two related averages.
3. Pearson correlation coefficient.
4. Spearman Brown equation.
5. Cronbach Alpha.
6. Standard deviations.

III. Study methodology:

The current study follows the experimental approach: it is the scientific method that uses experiments to verify the validity of hypotheses. Therefore, the type of study helps accuracy in controlling the various aspects whose impact on the subject of the study must be excluded. Therefore, the following method was used in the study:

- Selecting the sample members randomly.
- Fixing some factors that may affect the results of the study, such as the absence of associated disabilities, so that the results of the study are attributed to the application of the program on the sample, and thus the program and its activities are the independent variables in the study, and the change that occurs to the sample is the dependent variable.

Study variables:

The independent variable: It is the proposed program that was applied to the respondents according to sessions containing various activities and training strategies.

Dependent variables: They are the changes that occur in the performance of the respondents in aggressive behavior as a result of applying the proposed program as measured by the aggressive behavior scale.

3 Study Results and Discussion

The current study aimed to identify the effectiveness of a play-based program in reducing aggressive behavior among children from dismantled families. The hypothesis states that (there are no statistically significant differences at the level of ($\alpha=0.05$), between the mean scores of the experimental and control group members on the aggressive behavior dimension due to the effect of the program). In order to answer this hypothesis, the researchers calculated the arithmetic means and standard deviations of the degrees of psychological stress among the members of the experimental and control groups based on the post-measurements and the follow-up, table (5) illustrates this.

Table 5. The results of the Mean Scores of the Experimental and Control Sample Members on the Pre and Post-measurement of the Social Skills Scale.

Number of items (30), aggressive behavior for children							
Control Group				Experimental Group			
case number	Pre-measurement score	post-measurement score	Differences between pre and post-measurement	case number	Pre-measurement score	Post-measurement score	Differences between pre and post-measurement
1	18	17	1	1	18	3	15
2	16	14	2	2	14	2	12
3	16	16	0	3	26	7	19
4	15	17	2	4	25	3	22
5	27	29	2	5	16	2	14

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6	27	26	1	6	27	3	29
7	23	20	3	7	27	14	18
8	19	17	2	8	20	5	15
9	15	16	1	9	25	6	19
10	24	25	1	10	27	5	22
Arithmetic mean	20	19.7	1.5	Arithmetic mean	22.5	5	18.5
Standard deviation	4.83	5.12	0.85	Standard deviation	5.0	3.6	4.97

Table 6. Comparison between The Arithmetic Mean of the Control and Experimental Sample Before Applying The Program.

	Variable 1	Variable 2
Arithmetic mean	4.8	4.8
Variance	9.6	7.1
Sample volume	10	10
Pearson correlation coefficient	0.41	
Degrees of freedom	9	
t statistic	0.15	
Critical t value	1.72	
Statistical significance level (observed t-value)	0.86	

Table 7. Comparison between the Arithmetic Mean of the Control and Experimental Sample after Applying the Program.

	Variable 1	Variable 2
Arithmetic mean	5.8	22.7
Variance	9.81	7.2
Sample volume	10	10
Pearson correlation coefficient	0.41	
Degrees of freedom	9	
t statistic	0.17	
Critical t value	1.78	
Statistical significance level (observed t-value)	0.88	

Table 8. Comparison between the Arithmetic Mean of the Control Sample before and after Applying the Program.

	Variable 1	Variable 2
Arithmetic mean	5.1	22.7
Variance	9.78	7.2
Sample volume	10	10
Pearson correlation coefficient	0.41	
Degrees of freedom	9	
t statistic	0.17	
Critical t value	1.78	
Statistical significance level (observed t-value)	1.88	

Table (5) clearly shows that the means for aggressive behavior scores of the experimental group were significantly higher than those of the control group on both pre and post-measurements. Initially, the differences between the two groups were minimal in the pre-measurement, but in the post-measurement and follow-up, substantial differences emerged. This demonstrates the effectiveness of the play-based program in reducing aggressive behavior among the members of the experimental group. Furthermore, the program's effectiveness persisted even after its completion, as evidenced by the consistent differences observed during the follow-up period. The researchers attribute these results to the utilization of appropriate techniques during the program sessions. The program involved interactive discussions between the participants and researchers about aggressive behavior in society, as well as role-modeling techniques to encourage positive influences from distinguished personalities. During the sessions, the technique of discussion was employed to

identify the challenges that children from dismantled families face in their daily lives. This helped them learn how to cope effectively with these obstacles. Additionally, the technique of reinforcement was used to promote positive ideas and behaviors among participants who demonstrated exceptional ideas during difficult situations they encountered.

Emotional discharge techniques provide the participants with a safe space to freely express their emotions, allowing them to identify and address painful aspects of their lives and experience psychological comfort during the sessions. Moreover, through the technique of cognitive confrontation, the children were trained to challenge negative thoughts about themselves and others, leading to corrections of many of these beliefs and subsequently reducing aggressive behaviors. The combination of these approaches contributed to an increase in the participants' social balance as they felt that they were undergoing a transformative experience. Overall, the play-based program proved effective in reducing aggressive behavior and promoting positive psychological development among the children.

Many studies have agreed with the current study's findings, such as the study conducted by Jarareh Jarareh, J., Mohammadi, A., Nader, M. & Akbar, S. (2016). which demonstrated the effectiveness of group play therapy in fostering children's creativity and reducing their aggressive behavior. The results of the study indicated that play therapy significantly enhances children's creativity and reduces their aggression. Additionally, Al-Dlaeen Al-Dalaeen, A. (2015). found that play helps decrease disruptive aggressive behavior in children with learning difficulties. Similarly, Zand and Nekah Zand, E. & Nekah, S. (2015). concluded that play therapy has a significant impact on reducing aggressive behavior. Furthermore, Garraleh Garralleh, I. (2014). revealed that play-based counseling programs play a vital role in reducing aggressive behavior among orphaned children in Jeddah. Rays Ray, D. C. (2008). demonstrated the efficacy of play programs in treating the disturbed or tense relationship between children and their parents, as well as reducing psychological stress by improving children's mental health. Ayash [Ayash, J. (2009). highlighted the effectiveness of play-based counseling programs in reducing aggressive behavior among children in shelter institutions in Gaza. Additionally, the findings of Al-Wawi Al-Wawi, O. (2012). emphasized the importance of drama-based play training programs in reducing aggressive behavior among eighth-grade students in Hebron, as play helps children release their internal frustrations, acquire various social skills to interact with their surroundings and bring them happiness. The study conducted by Zawawi and Ta'awinat Zawawi, N. & Tawinat, A. (2021). demonstrated the effectiveness of behavioral programs based on certain sports and recreational activities in reducing aggressive behavior among intellectually disabled children who are capable of learning. Al-Zahrani Al-Zahrani, S. (2021). highlighted the importance and effectiveness of emotional and behavioral programs based on play in reducing aggressive behavior among middle school students in Al-Baha region. Additionally, Bilarabi Bilarabi, J. (2018). emphasized the significance of behavioral counseling programs in reducing aggressive behavior among secondary school students. Furthermore, Dong, Hallberg & Hassard Dong, Y. L., Hallberg, E. T., & Hassard, J. H. (1979). indicated the efficacy of play-based programs in reducing aggressive behavior among university students. Khaledi Khalidi, F. (2014). confirmed the contribution of play activities in developing social interaction skills, reducing aggressive behavior, and improving psychological harmony among kindergarten children from the perspective of educators. Ramdanis Murad, S. & Sulaiman, A. (2017). concluded that play therapy plays an effective role in reducing aggressive behavior among kindergarten children in Algeria.

Based on the findings above, the positive impact of the play-based program on children from dismantled families and their level of adaptation to society becomes evident. These results are consistent with previous studies that researchers have had access to, as all of these studies agreed with the findings of the current study regarding the effectiveness of the play-based program in extinguishing aggressive behavior. Accordingly, the researchers find that the success of implementing this program within a natural environment calls upon decision-makers to provide such programs as a support plan for dysfunctional families. This can be achieved by offering support to institutions and schools through training their staff on how to implement these programs within their organizations and supporting these institutions with the necessary facilities and tools required for the success of these programs. It can be simply stated that without the financial, moral, and voluntary

support of institutions, individuals, and charitable organizations, this work would not have been possible. A heartfelt appreciation is extended to all of them.

4 Recommendations

1. Working on improving the services provided to children from dismantled families and enabling them to participate in public life, as well as making decisions related to their future, is crucial.
2. Benefiting from the playgrounds and tools available in schools and public playgrounds to support deaf individuals.
3. Arranging communication programs with the community and social institutions.
4. Studying the effectiveness of a social program in improving the psychological harmony of dismantled families.
5. Studying the correlational relationship between social support for children from dismantled families and enhancing their self-esteem.
6. Studying the relationship between social isolation, anxiety, and their connection to suicidal thoughts.
7. Studying the relationship between quality of life and its association with aggressive behavior.

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Ethics: All respondents gave their informed consent for inclusion before they participated in the study. The study was conducted following the Declaration of Helsinki, and the protocol was approved by the Ethics Committee for Scientific Research (ECSR) at Zarqa University, (2/3/2024)

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study detailing the purpose of the research and ensuring the confidentiality of their information, and no personal data was obtained from the participants, the consent form to participate in the research was signed before the child's initial assessment began around (8/2023)

Data Availability Statement: The datasets generated during and/or analyzed during the current study are available from the corresponding author upon reasonable request.

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Duration: the program lasted from (1/9/2023 – 30/5/2024)

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Appendix number (1)

Training Program Description

Number	Game Name	Description	Implementation
1	Building Self-Confidence Game	This game aims to build the child's self-confidence and improve their self-esteem.	Children sit in a circle, and each child identifies a positive quality about themselves without fear of criticism. For example, they can say, "I am smart" or "I am good at drawing." After that, others confirm this quality and add more positive attributes. The game can continue until everyone has received positive affirmations from their peers.
2	Emotion Box Game	This game aims to encourage children to express their feelings and share them with others.	Prepare a small box or basket with paper and pens. In each session, each child writes or draws their feelings on a piece of paper and puts it in the box without sharing it with others if they do not want to. Then, one by one, the children select a piece of paper from the box and read or talk about its content.
3	Social Skills Game	This game aims to improve communication and social interaction skills for children.	Gather children in small groups and present them with different social scenarios, such as "How to ask a friend to play?" or "How to deal with a conflict between friends?" Children can role-play the scenarios, focusing on using positive communication skills such as listening, empathy, and conflict resolution.
4	Building Relationships Game	This game aims to enhance communication and build positive relationships among children.	Give each child a picture of another child without revealing the identity. Ask them to think about things they can do with this child and how to show care and support for them. Then, children come together and try to identify the child in the picture based on the things they discussed. They can exchange pictures and get to know each other better.
5	Feelings Charades	This game aims to help children recognize and express different emotions in a fun and	Write various emotions (e.g., happy, sad, angry, scared) on separate cards. Have one child pick a card and act out the emotion without using any words, while the others try to guess the feeling being portrayed. Afterward, encourage a discussion about the emotions and situations that might trigger them.

		interactive way.	
6	Team Building Puzzle	This game promotes teamwork and cooperation among the children	Divide the children into small groups and provide each group with a jigsaw puzzle. Set a timer and see which group can complete the puzzle the fastest. Encourage them to work together, communicate effectively, and support each other to complete the task successfully
7	Story in a Bag	This game encourages creativity and storytelling while addressing emotions and experiences related to family separation.	Prepare a bag with various props or objects. Each child takes turns reaching into the bag and pulling out an item. They must use the item as inspiration to tell a story related to their experiences or feelings. This activity allows them to process their emotions through storytelling.
8	Empathy Circle	This game fosters empathy and active listening among the children	Form a circle with the children. One child starts by sharing a personal experience or feeling related to family separation. Then, each child takes turns responding with empathetic statements, such as "I understand how you feel" or "That must have been tough." This exercise helps children feel heard and supported by their peers.
9	Football (Soccer)	Football, also known as soccer, is a popular team sport played worldwide. It involves two teams competing to score goals by kicking a ball into the opposing team's net.	• Benefits for Children: - Physical Fitness: Playing football is an excellent way for children to stay physically active. It helps improve cardiovascular health, coordination, agility, and overall endurance. - Teamwork: Football is a team sport that requires cooperation and communication among players. Children learn to work together, strategize, and rely on their teammates to achieve common goals. - Discipline: Football teaches children discipline, as they must follow the rules and regulations of the game. It also instills a sense of responsibility, as each player has a specific role on the field. - Self-Confidence: Scoring a goal or making a successful play can boost a child's self-esteem and confidence in their abilities. - Stress Relief: Engaging in physical activity like football can help reduce stress and promote a positive mood in children.
10	Swimming	Swimming is a recreational and competitive	• Benefits for Children:

		activity that involves moving through water using various strokes and techniques.	- Full-Body Workout: Swimming is an excellent low-impact exercise that engages multiple muscle groups, promoting strength and flexibility in children. - Water Safety: Learning to swim is crucial for water safety, as it equips children with essential skills to stay safe around pools, lakes, and other bodies of water. - Confidence and Independence: As children develop their swimming skills, they gain confidence and a sense of independence, knowing they can navigate through water on their own. - Stress Reduction: Being in the water and swimming can have a calming effect on children, helping them reduce anxiety and stress. - Social Interaction: Swimming classes or teams provide an opportunity for children to interact with peers, make new friends, and develop social skills.
11	Art and Craft Activities	Art and craft activities encompass various creative pursuits such as drawing, painting, crafting with different materials, and sculpting.	• Benefits for Children: - Creativity: Engaging in arts and crafts activities allows children to explore their imagination and creativity, expressing themselves through visual forms. - Fine Motor Skills: Art and craft activities involve using small muscles and precise movements, which helps improve fine motor skills in children. - Self-Expression: Artistic activities offer children a medium to express their feelings, thoughts, and experiences, which can be particularly beneficial for those dealing with family separation. - Focus and Patience: Completing art projects requires focus and patience, helping children develop concentration and perseverance. - Sense of Achievement: Finishing an art piece or craft project gives children a sense of accomplishment and pride in their work