

Investigating the Effect of an Acceptance and Commitment Therapy-Based Psychoeducation Programme on Levels of Psychological Flexibility, Death Anxiety, Burnout and Life Satisfaction in Parents of Disabled Children¹

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Abstract

This study examined the effect of an Acceptance and Commitment Therapy (ACT)-based psychoeducation program on levels of psychological flexibility, death anxiety, burnout, and life satisfaction in parents of disabled children. The study used a 3 X 3 split-plot mixed experimental design, including experimental, control, and placebo groups, and administered a pretest, post-test, and follow-up test to each group. The study group comprised parents of disabled children attending special education and rehabilitation centers in the Ercis district of Van province. The study data were collected using a sociodemographic information form, the Acceptance and Action Questionnaire-II (AAQ-II), the Thorson-Powell Death Anxiety Scale, the Maslach Burnout Inventory, and the Satisfaction with Life Scale. The applied psychoeducation program was found to significantly increase psychological flexibility and life satisfaction levels in parents of disabled children. In contrast, the changes in their death anxiety and burnout levels were not statistically significant.

Keywords: *Acceptance and Commitment Therapy, parents of disabled children, psychological flexibility, death anxiety, burnout, life satisfaction.*

Introduction

Having a disabled child is a challenging experience (Baykoç, 2010). Following the birth of a disabled child, parents experience various problems depending on the type and level of their child's disability. These problems result from needs such as the child's education and care, the financial burden caused by the child's needs, securing the child's future, and having to restructure their own lives. As a result, parents can show various emotional and behavioral reactions (Hoyle et al., 2021; Paixão et al., 2018).

When faced with a situation they have difficulty accepting, parents experience intense anxiety along with feelings such as refusal, sadness, guilt, and denial. Uncertainties such as whether they will be able to meet their children's needs and what awaits their children if they cannot do so lead to significant anxiety in parents (Baker-Ericzén et al., 2005; Coşkun & Akkaş, 2009). This intense anxiety experienced by parents of disabled children can also increase and complicate the parents' death anxiety. Following the birth of a disabled child, parents' death

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anxieties are shaped around their caregiving duties, and they consider their death anxieties together with concerns for their children's future (Altıntaş et al., 2020; Kaçan et al., 2022; Koca, 2017). Under normal circumstances, parents avoid thinking about the death of their child, yet some parents, especially those with children with severe disabilities, may state that they want their disabled children to die before them (Oktar & Yıldız, 2019).

As with all children, the natural caregivers of disabled children are their parents; although this care varies depending on the type and level of the child's disability, it mostly continues throughout life. This long and stressful process can lead to burnout in parents, especially mothers. Mothers are generally accepted as the first person in the family to take care of children, and they are expected to give up their social life and work life if necessary (Cin et al., 2017). The effort to meet these expectations, undertake the care of the children, and fully meet their needs can cause excessive stress in mothers, and over time, this can result in burnout (Duygun & Sezgin, 2003).

Having a disabled child and the accompanying social, economic, and psychological problems can also impact parents' evaluations and expectations of life. The conclusion people reach by comparing their expectations of life with what they have is expressed by the concept of life satisfaction (Pavot & Diener, 1993). While there are studies in the literature showing that parents' life satisfaction decreases following the birth of a disabled child (Kaçan Softa et al., 2016), there are also studies showing that the emotional and economic changes experienced in the family following the birth of a disabled child can lead to positive attitudes and behaviors and that this positively affects life satisfaction in parents (Baykan et al., 2010; Deniz et al., 2009).

Parents' experiences during the birth and care process of a disabled child can differ. While some parents adapt more quickly to the situation and are less psychologically affected, others have more difficulty and may be more pessimistic about the future. Parents' different reactions while coping with similar problems are explained by differing psychological flexibility in parents based on the Acceptance and Commitment Therapy (ACT) approach, which is increasingly common in psychology. Psychological flexibility can be defined as an individual's awareness of his/her emotions, thoughts, and behaviours that are considered inhibitory without making any effort to change or control them, while being able to live his/her life with determined steps in line with his/her values (Harris, 2020). ACT's primary purpose is to equip the individual with psychological flexibility, the ultimate goal, by working on six components (contact with the present moment, self-as-context, cognitive defusion, acceptance, values, and committed action towards valued goals). An individual who can act in a psychologically flexible way will thus be able to demonstrate more functional coping behaviors against the challenging experiences they face (Levin & Hayes, 2009). Previous studies have shown that parents of disabled children have lower levels of psychological flexibility (Chong et al., 2019; Corti et al., 2018; Gur & Reich, 2023) than parents without disabled children. In other words, their levels of psychological inflexibility are higher.

In this study, an ACT-based psychoeducation program was prepared for parents of disabled children. The ACT-based psychoeducation program aims to ensure that individuals can evaluate life from a new perspective and regulate their behavior accordingly, despite the difficulties of their current situation (Levin & Hayes, 2009).



When the literature is examined, a limited number of studies on parents of disabled children using the ACT approach can be seen. This approach is among the third-wave cognitive behavioral therapies (CBT), and its effectiveness has been demonstrated by evidence-based studies in many study groups and problem areas. In this respect, systematic studies are needed to offer new perspectives and skills related to the harrowing experiences faced by parents of disabled children. In addition, it is expected that the prepared psychoeducation program will increase participants' ability to cope with the problems they experience while having a preventive and protective function in terms of the different problems that may develop in participants.

Research Problem

It is expected that the prepared ACT-based psychoeducation program will reduce death anxiety and burnout levels in parents of disabled children, and increase their life satisfaction and psychological flexibility levels. The independent variable of the study is the ACT-based psychoeducation program, while the dependent variables are the levels of psychological flexibility, death anxiety, burnout, and life satisfaction in parents of disabled children.

Hypotheses. In line with the purpose of the study, the following hypotheses will be tested.

- 1.The ACT-based Psychoeducation Programme will increase psychological flexibility levels in parents of disabled children, and this increase will be sustained.
2. The ACT-based Psychoeducation Programme will reduce death anxiety levels in parents of disabled children, and this decrease will be sustained.
- 3.The ACT-based Psychoeducation Programme will reduce burnout levels in parents of disabled children, and this decrease will be sustained.
- 4.The ACT-based Psychoeducation Programme will increase life satisfaction levels in parents of disabled children; and this increase will be sustained.

Method

This study was considered ethically appropriate by the decision of Van Yüzüncü Yıl University's Social and Humanities Publication Ethics Committee, dated 30/04/2021, and numbered 2021/06-13. Before the study, participants were given the necessary information, and their voluntary consent to participate was obtained.

Research Method and Design

This research is experimental. Experimental studies reveal a cause-effect relationship and allow results to be generalized to similar conditions (Can, 2019). The study uses a 3 X 3 split-plot mixed experimental design, which includes experimental, control and placebo groups, and in which a pretest, posttest and follow-up test are administered to each group. Split-plot designs consist of two factors, in which within-group and between-group measures are used together (Büyüköztürk et al., 2019).

Table 1

Symbolic Representation of Research Design

Group	Assignment	Procedure 1	Procedure 2	Procedure 3	Procedure 4
Experimental	Random	Pretest	ACT-based psychoeducation programme	Posttest	Follow-up test
Control	Random	Pretest	--	Posttest	Follow-up test
Placebo	Random	Pretest	Educational activities	Posttest	Follow-up test

Study Group

In this study, the study group was formed by the nature of the survey without sample selection. While forming the study group, the data collection tools were first applied to 465 parents of disabled children attending five special education and rehabilitation centers in the Erciş district of Van province. The data of 81 participants were not included in the study due to partially missing data, and the study was continued with the data of 384 participants. Participants were informed about the experimental aspect of the study during the administration of the scales, and 43 people who volunteered to participate in the experimental research and met the inclusion criteria were selected. The following criteria were taken into account when selecting members of the study group:

- Having a disabled child (there was no limitation on the child's age or their type and level of disability)
- Not receiving any psychological treatment
- Volunteering to participate in the psychoeducation process
- High pretest scores on the death anxiety and burnout scales and low pretest scores on the life satisfaction and psychological flexibility scales.

The study was planned to include both mothers and fathers, but only four fathers could be reached who volunteered to participate and met the conditions. One of these four fathers stated that he was to go out of town to work in construction, while another could not participate in the study due to health problems. The remaining two fathers were not included in the study, considering the warnings in the literature that the presence of participants of the opposite sex will reduce participation in activities and create problems with self-disclosure (Güçray et al., 2009). Therefore, the study groups were made up of mothers only. Thirty-nine mothers who met the above criteria and volunteered to participate in the study were assigned by lottery to the experimental, control, and placebo groups, with 13 mothers in each group.

Most mothers in the study group were married and lived with their spouses and children ($n = 37$, 94.9%). Many mothers were illiterate ($n = 20$, 51.3%), while some could read and write but did not have a diploma ($n = 5$, 12.8%). The majority of the participants were homemakers ($n = 37$, 94.9%), while one participant was a teacher ($n = 1$, 2.5%) and another was a social worker ($n = 1$, 2.5%). When income levels are examined, it can be seen that a significant number of participants had an income lower than their expenses ($n = 18$, 46.1%). Seventeen



participants ($n = 17$, 43.6%) stated that their income and costs were equal, while four participants ($n = 4$, 10.2%) stated that their income was greater than their expenses. One of the participants had one child ($n = 1$, 2.5%), fourteen people had two children ($n = 14$, 35.9%), thirteen people had three children ($n = 13$, 33.3%), and nine people had four children ($n = 9$, 23.1%). Two people stated they had five or more children ($n = 2$, 5.1%). When we look at the number of disabled children, thirty-four people, had one disabled child ($n = 34$, 87.2%), while, five people, had two disabled children ($n = 5$, 12.8%). While twenty of the participants stated that no one supported them in the care of their child ($n = 20$, 51.3%), nineteen reported that someone did ($n = 19$, 48.7%). Most participants ($n = 35$, 89.7%) stated that they benefited from various opportunities provided by the state. In contrast, four people ($n = 4$, 10.2%) reported that they did not benefit from any opportunities provided by the state.

When we examine the types of disabilities of disabled children, 16 (36.3%) have both intellectual and physical disabilities; two have severe, ten have moderate, and four have mild intellectual disabilities, respectively. While there were four children with physical disabilities alone ($n = 4$, 9.1%), there were six children with autism ($n = 6$, 13.6%). One of the children with autism was diagnosed with severe autism, two with moderate autism, and three with mild autism. Five children ($n = 5$, 11.4%) have visual impairment. One of these children also had mild intellectual disability. There were seven children with only intellectual disabilities ($n = 7$, 15.9%). Four of these had mild intellectual disabilities, and three had moderate intellectual disabilities. There were five children with hearing impairment ($n = 5$, 11.4%). Two of these children also had mild intellectual disabilities.

Data Collection Tools

In this study, a sociodemographic information form developed by the researcher, the Acceptance and Action Questionnaire-II (AAQ-II), the Thorson-Powell Death Anxiety Scale, the Maslach Burnout Inventory, and the Satisfaction with Life Scale were used for data collection.

Sociodemographic information form

The researcher prepared this form and included information thought to have an impact on the study's dependent variables, such as marital status, age, gender, educational status, financial situation, number of children, and type of disability of the child.

Acceptance and Action Questionnaire-II (AAQ-II)

This questionnaire was developed by Bond et al. (2011) to assess psychological flexibility. The questionnaire was adapted to Turkish by Yavuz et al. (2016). In the validity and reliability studies conducted during the adaptation of the questionnaire, the Cronbach's alpha value of the questionnaire was calculated as .84, and the correlation value in the test-retest analysis was calculated as .85. The questionnaire consists of a single factor, which explains 51.76% of the variance. The questionnaire is a 7-point Likert-type scale. Scores ranging from 7 to 49 can be obtained from the questionnaire, and a high score indicates psychological inflexibility is high and low psychological flexibility. Following the adaptation study, it was stated that the questionnaire was valid and reliable for both clinical and non-clinical samples.

Thorson-Powell Death Anxiety Scale

This scale was developed by Thorson and Powell (1992) and adapted to Turkish by Karaca and Yıldız (2001). The researchers used the split-half method to demonstrate the reliability of the scale and calculated the correlation between the two half-scales was .73, and the Cronbach's alpha internal consistency coefficient of the scale was .84. In our study, the form of the scale for which Tanhan conducted validity studies (2022) was used. Some items in the scale that contained leading statements based on religious presuppositions were re-examined by the researcher, and various changes were made (for example, the expression "after death" was used instead of "afterlife"). In the statistical analyses, the scale's KMO value was calculated as .903, and the Cronbach alpha internal consistency coefficient was calculated as .91. The total variance explained by the scale items is 55.29%. As a result of the factor analysis, four main factors with eigenvalues greater than one emerged from the analysis of the scale. These factors are the "anxiety about deprivation and helplessness," "uncertainty about what happens after death," "anxiety about decay and deterioration," and "anxiety about the death process and suffering" subscales. The Cronbach alpha values of these subscales were calculated as .87, .85, .83, and .44, respectively. The scale is a 5-point Likert-type scale. Scores obtained from the scale are evaluated as "very little death anxiety" between 0 and 25, "some degree of death anxiety" between 26 and 50, "death anxiety" between 51 and 75, and "high death anxiety" between 76 and 100 (Tanhan, 2022).

Satisfaction with Life Scale

The original form of the Satisfaction with Life Scale developed by Diener et al. (1985) consists of a single factor and five items. Various researchers carried out validity and reliability studies of the scale in Turkey (Köker, 1991; Yetim, 1993). More recently, in the validity and reliability analyses of the Turkish adaptation study conducted by Dağlı and Baysal (2016), the test-retest reliability of the scale was found to be .97. The Cronbach alpha internal consistency coefficient was found to be .88. The factor analysis showed that it was revealed that the scale consisted of a single factor and five items, consistent with the original scale. The scale is a 5-point Likert-type scale. The total score obtained from the scale determines the level of life satisfaction.

Maslach Burnout Inventory

The original form of the inventory developed by Maslach and Jackson (1981) consists of 22 items and three factors. These factors are emotional exhaustion, personal accomplishment, and depersonalization. The Turkish adaptation study of the scale was conducted by Ergin (1992). The researcher reduced the number of Likert ratings, which was 7 in the original form of the scale, to 5, on the grounds of conformity to Turkish culture. In the adaptation study, the three factors in the original form were again obtained. As a result of the analyses, the Cronbach's alpha internal consistency value of the emotional exhaustion factor of the scale was .83. The test-retest reliability value was .83; the Cronbach alpha value of the personal accomplishment factor was .72; and the test-retest reliability of the personal accomplishment factor was .67. The Cronbach alpha value of the depersonalization factor was .65. The test-retest value was .72. The validity of the scale for parents of mentally disabled and healthy children was demonstrated in the study carried out by Duygun and Sezgin (2001). In the adaptation study of the scale, the researchers used the scale by making revisions such as "my child" instead of the phrase "people I encounter due to my job" and the phrase "taking care of my child" instead of "work." As a result of the analyses, they stated that the scale items were grouped into two factors: emotional exhaustion and personal accomplishment. Item 15 was removed because its factor loading was low. In the statistical analyses, Cronbach alpha



values for the subscales were found to be .65 and .83, respectively, while test-retest reliability coefficients were found to be .67 and .83, respectively. This form of the scale was determined to have 21 items, while high scores from the emotional exhaustion subscale items and low scores from the personal accomplishment subscale items were accepted as burnout. This form of the scale was used in our study.

Preparation of Psychoeducation Programme

Pre-programme preparation

Before preparing the psychoeducation program, the researcher prepared by participating in various training sessions and activities related to ACT. In this context, basic training in ACT was received from the Association for Contextual Behavioural Science (TÜRBAD), which is also the official representative of the International Association for Contextual Behavioural Science in Turkey. Numerous exercises and activities that can be used in the psychoeducation program were introduced during this training process. We also attended an international event held online to keep up with current discussions and practices related to ACT. Besides articles in Turkish and foreign literature, essential works were examined in detail. Various studies discussing group psychological counseling practices, ACT-based therapy practices, and ACT-based psychoeducation programs for parents of people with disabilities were examined. Following the preparations, an eight-session draft psychoeducation program was created.

Supervisory support for the prepared draft psychoeducation program was obtained from the Association for Contextual Behavioural Science. Then, the draft program was presented to four experts for their opinions. Finally, the program was implemented as a pilot lasting four weeks for four parents who met the conditions for participation in the study group. The activities were carried out in two sessions per week. The program was finalized by making appropriate revisions based on supervisory and expert opinions, and pilot implementation.

Structure of psychoeducation programme

ACT formed the basis of the psychoeducation program. In addition, the basic principles of group psychological counseling were taken into consideration. The aim was for people to acquire skills that would make their lives more prosperous and more meaningful during the education process and use them afterwards. For this purpose, techniques such as role-playing and psychodrama were used in the activities, with homework assigned at the end of the sessions supporting the studies. Although each session of the prepared psychoeducation program was structured, flexibility was provided to allow participants to easily express their feelings and thoughts, open up about themselves, and interact when necessary.

Except for the preparation session, the process of each session was generally planned as follows:

- Brief evaluation of the previous session at the beginning of the session
- Checking the homework given in the previous session
- Carrying out the activities for that day
- “Being in the moment” exercise
- Evaluation of the day

- Giving homework
- Ending the session

Content and outline of sessions.

Four basic structures should be included in each stage of the ACT psychological counselling process. These are mindfulness exercises, evaluation of previous sessions, interventions on components of the psychological flexibility hexagon (“hexaflex”), and homework. The process generally consists of teaching the skills of defusion and acceptance, focusing on the present moment, followed by the components of self-as-context and values and finally taking committed action towards valued goals. However, in interventions with people who have no experience with psychological interventions and are reluctant to participate in the study, it is more appropriate to prioritize values and take committed action toward valued goals (Harris, 2009). In this context, taking into account the characteristics of our study group, we planned the outlines of the psychoeducation program as follows:

- Preparation session and first session: Preparing the participants for the process and providing a new perspective in which they recognize the dysfunctionality of existing coping styles
- Second session: Determining the goals of the education process, becoming aware of values , and ensuring contact with values
- Third session: Determining the steps that can be taken towards values and taking a determined stance towards these steps
- Fourth session: recognizing thoughts that are converging and the impact of this state of convergence on emotions, thoughts, and behaviors, and acquiring skills for defusion from thoughts
- Fifth session: Understanding the conceptualization of the observing self and conceptual self and developing skills for the observing self
- Sixth session: Understanding the dysfunctionality of struggling with painful emotions and thoughts and developing the ability to accept all kinds of emotions and thoughts by making room for them
- In the seventh session, participants develop mindfulness skills by understanding the importance of being in the moment and eliminating the dominance of the past or future, and after a general evaluation, they complete the psychoeducation process.

Implementation Process of Psychoeducation Programme

After making the necessary preparations, the psychoeducation program based on the ACT approach was applied by the researcher to the study's experimental group. No intervention was made in the control group of the study. At the same time, the researcher applied a program, which included various educational activities to guide parents in the education process of their children, to the placebo group. These activities were prepared with support obtained from teachers working in special education. After the implementation of the psychoeducation program and the administration of the scales for the follow-up test, it was also applied to the control and placebo groups.



Data Analysis

To decide whether the tests for data analysis should be parametric or non-parametric, the distribution of pretest, posttest, and follow-up test scores obtained from the scales was examined. In order to use parametric tests, the data must meet the assumptions of normal distribution and homogeneity (Büyüköztürk et al., 2019). It is recommended to use the Shapiro-Wilk normality test when the size of the group is below 50 (Kalaycı, 2014). The data from the Shapiro-Wilk test and the scores from the skewness and kurtosis tests were evaluated together. As a result, parametric tests were performed.

Before the experimental procedure, one-way ANOVA was used to examine whether there was a significant difference between the pretest scores of the experimental, control, and placebo groups. To test the effect of the applied psychoeducation program, a two-factor ANOVA for repeated measures was used to examine whether there was a significant difference between the scores obtained from the pretest, posttest, and follow-up test. The Bonferroni test, one of the post hoc tests, was used to compare the mean pretest, posttest, and follow-up scores. The Bonferroni multiple comparison test is used to test the significance of the difference between the means of consecutive measurements (Can, 2019). The margin of error in the analyses was set at 0.05.

Findings

The primary purpose of this study is to examine the effect of an ACT-based psychoeducation program on the psychological flexibility, death anxiety, life satisfaction, and burnout levels of parents of disabled children. Before testing the research hypotheses, it was necessary to determine whether there was a significant difference between the pretest results of the experimental, control, and placebo groups for each scale, or in other words, whether the groups were equivalent before the implementation. As a result of the one-way ANOVA conducted for this purpose, it was concluded that the differences between the pretest scores of the experimental, control and placebo groups on the psychological flexibility ($F(2,36) = .321$; $p = .727$), death anxiety ($F(2,36) = .410$; $p = .236$), burnout ($F(2,36) = .410$; $p = .66$), and life satisfaction ($F(2,36) = 2.23$; $p = .122$) scales were not significant, in other words, that the scores of the experimental, control and placebo groups were equivalent for each variable.

Findings on the Effect of the Psychoeducation Programme on Psychological Flexibility

A two-factor ANOVA test for repeated measures was used to test whether there was a significant difference between the psychological flexibility levels of the experimental, control, and placebo groups based on the mean scores for the pretest, posttest, and follow-up test. The obtained findings are given in Table 2.

Table 2

ANOVA Results for Pretest, Posttest and Follow-up Test Scores for Psychological Flexibility in Experimental, Control and Placebo Groups

Source of variation	SS	df	MS	F	p-value
Between groups					

Group (Experimental/Control/Placebo)	9.88	2	4.94	7.13	.00
Error	24.92	36	.69		
Within groups					
Measure (Pre/Post/Follow-up)	.10	2	.05	.24	.78
Measure*group	4.00	4	1.00	4.76	.00
Error	15.12	72	.21		

As can be seen in Table 2, it was found that the group effect was significant according to the ANOVA test ($F(2, 36) = 7.136, p < .001$). This finding suggests that the difference between the mean scores of the groups for psychological flexibility is significant, without distinguishing between specific groups. It was found that regardless of group differences, the difference between the groups' pretest, posttest, and follow-up test mean scores was not significant ($F(2-36) = .242; p = .78$). However, the measure and measure*group interaction effects were examined, and it was concluded that the effect was statistically significant ($F(2,36) = 4.766; p = .05$). The Bonferroni test, a post hoc test, was used to determine the source of the significant difference. The results of the pairwise comparisons made with the Bonferroni test are given in Table 3.

Table 3

Bonferroni Test Results for Psychological Flexibility Scores of Experimental, Control and Placebo Groups Based on Pretest, Posttest and Follow-up Measures

Participant group (I)	Participant group (J)	Mean Difference (I-J)	Standard Error	p-value
Experimental group	Control group	.63*	.18	.005
	Placebo group	.59*	.18	.009
Control group	Experimental group	-.63*	.18	.005
	Placebo group	-.03	.18	1.000
Placebo group	Experimental group	-.59*	.18	.009
	Control group	.03	.18	1.000

When Table 3 is examined a significant difference was found between the mean psychological flexibility scores of the experimental group and the control group ($-.6351, p < .001$), according to the pairwise comparisons made with the Bonferroni test. Based on this finding, it can be

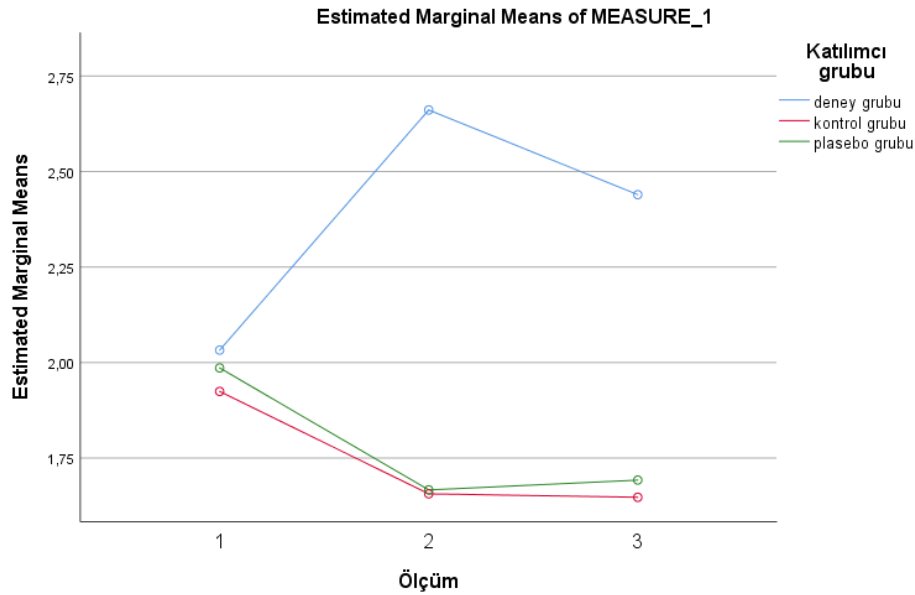


said that the psychological flexibility levels of participants in the experimental group increased after the ACT-based intervention program. Furthermore, a statistically significant difference was found between the mean psychological flexibility scores of the experimental group and the placebo group (0.5961, $p < .01$). Based on this result, it can be said that the psychological flexibility levels of the participants in the experimental group increased after the intervention program.

The graph of the change in the mean psychological flexibility scores of participants in the experimental, control, and placebo groups is shown in Figure 1.

Fig. 1.

Graph of Change in Psychological Flexibility Scores for Pretest-Posttest-Follow-up



As shown in Figure 1, while the mean psychological flexibility scores of participants in the experimental, control, and placebo groups were close to each other in the first measure, the situation changed in favour of the experimental group in the second and third measures. Accordingly, the psychological flexibility levels of participants in the experimental group increased. Therefore, the first hypothesis of the study, namely that “the ACT-based Psychoeducation Programme will increase psychological flexibility levels in parents of disabled children, and this increase will be sustained,” was accepted.

Findings on the Effect of the Psychoeducation Programme on Death Anxiety

A two-factor ANOVA test for repeated measures was used to test whether there was a significant difference between the death anxiety levels of the experimental, control, and placebo groups based on the mean scores for the pretest, posttest, and follow-up test. The findings are given in Table 4.

Table 4.

ANOVA Results for Pretest, Posttest and Follow-up Test Scores for Death Anxiety in Experimental, Control and Placebo Groups

Source of variation	SS	df	MS	F	p-value
Between groups					
Group (Experimental/Control/Placebo)	20.34	2	10.17	4.32	.02
Error	84.72	36	2.35		
Within groups					
Measure (Pre/Post/Follow-up)	.51	2	.25	.63	.53
Measure*group	2.27	4	.57	1.40	.07
Error	29.27	72	.40		

When Table 4 was examined, it was found that the group effect was significant according to the ANOVA test ($F(2, 36) = 4.323$; $p = .02$). Based on this finding, it can be said that the difference between the mean scores of the groups for death anxiety is significant. It was found that regardless of group differences, the difference between the groups' death anxiety pretest, posttest, and follow-up test mean scores was not significant ($F(2, 36) = .630$; $p = .53$). Moreover, as a result of the measure and measure*group interaction analysis, it was concluded that the effect was not statistically significant ($F(2, 36) = 1.401$; $p = .07$). When these results are evaluated together, the second hypothesis of the study, namely that "the ACT-based Psychoeducation Programme will reduce death anxiety levels in parents of disabled children, and this decrease will be sustained," was rejected.

Findings on the Effect of the Psychoeducation Programme on Burnout

A two-factor ANOVA test for repeated measures was used to test whether there was a significant difference between the burnout levels of the experimental, control, and placebo groups based on the mean scores for the pretest, posttest, and follow-up test. The obtained findings are given in Table 5.

Table 5.*ANOVA Results for Pretest, Posttest and Follow-up Test Scores for Burnout in Experimental, Control and Placebo Groups*

Source of variation	SS	df	MS	F	p-value
Between groups					



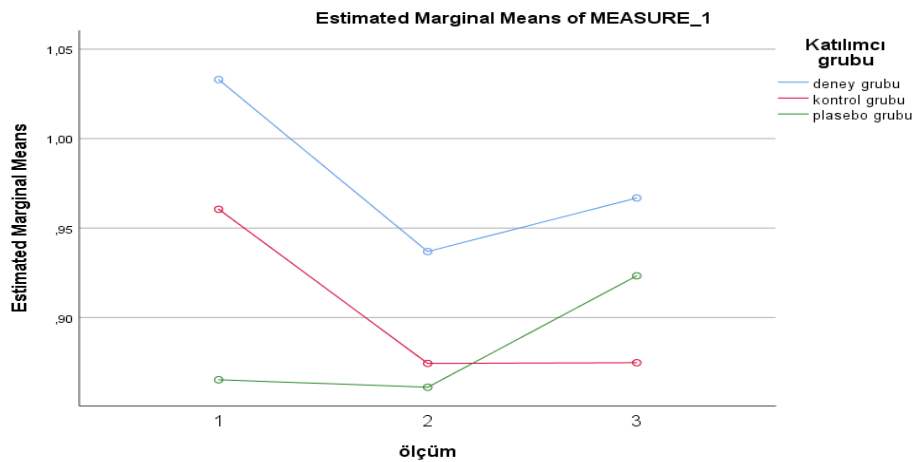
Group (Experimental/Control/Placebo)	.79	2	.40	.317	.730
Error	4.48	36	.12		
Within groups					
Measure (Pre/Post/Follow-up)	.07	2	.03	.424	.656
Measure*group	.83	4	.02	.234	.918
Error	6.40	72	.08		

As can be seen in Table 5, the group effect was not significant in the ANOVA test ($F(2, 36) = .317, p = .730$). Based on this finding, it can be said that the mean scores of the groups for burnout are not significant. It was concluded that the difference between the groups' pretest, posttest, and follow-up test mean scores was not significant, regardless of group differences ($F(2-36) = .424; p = .656$). As a result of the interaction effect of measure and group analysis, it was concluded that there was no significant difference between the groups.

The graph of the change in the mean burnout scores of participants in the experimental, control, and placebo groups is shown in Figure 2.

Fig. 2.

Graph of Change in Burnout Scores for Pretest-Posttest-Follow-up



As can be seen in Figure 2, the mean burnout scores of participants in the experimental, control, and placebo groups in the first measure remained largely unchanged across the second and third measurements. Accordingly, the third hypothesis of the study, namely that "the ACT-based Psychoeducation Programme will reduce burnout levels in parents of disabled children, and this decrease will be sustained," was rejected.

Findings on the Effect of the Psychoeducation Programme on Life Satisfaction

A two-factor ANOVA test for mixed designs was used to test whether there was a significant difference between the life satisfaction levels of the experimental, control, and placebo groups based on the mean scores for the pretest, posttest, and follow-up test. The findings are given in Table 6.

Table 6.

ANOVA Results for Pretest, Posttest and Follow-up Test Scores for Life Satisfaction in Experimental, Control and Placebo Groups

Source of variation	SS	df	MS	F	p-value
Between groups					
Group (Experimental/Control/Placebo)	19.108	2	9.554	8.337	.00
Error	41.253	36	1.146		
Within groups					
Measure (Pre/Post/Follow-up)	1.631	2	.816	5.640	.00
Measure*group	3.645	4	.911	6.301	.00
Error	10.413	72	.145		

When Table 6 was examined, it was found that the group effect was significant according to the ANOVA test ($F(2,36) = 8.337$; $p < .01$). Based on this finding, without distinguishing between groups, the difference between the groups' mean life satisfaction scores after the measures is significant. It was concluded that the difference in mean scores from the life satisfaction pretest, posttest, and follow-up tests was significant despite group differences ($F(2,36) = 5.640$; $p = .00$). Based on this result, it can be said that the life satisfaction levels of the groups differed significantly after the implemented programme. In the analysis of the measure and measure*group interaction effect, the effect was also found to be statistically significant ($F(2, 36) = 6.301$; $p < .001$). To determine the source of this significant difference between the groups, pairwise comparisons were made with the Bonferroni test, and the results of comparisons are given in Table 7.

Table 7.

Bonferroni Test Results for Life Satisfaction Scores of Experimental, Control and Placebo Groups Based on Pretest, Posttest and Follow-up Measures

Participant group (I)	Participant group (J)	Mean (I-J)	DifferenceStandard Error	p-value
Experimental group	Control group	.8435*	.24242	.004



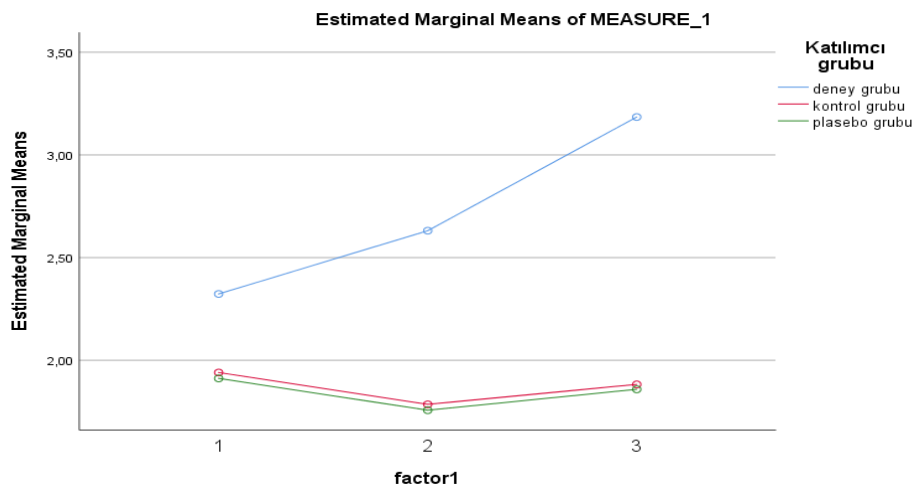
	Placebo group	.8704*	.24242	.003
Control group	Experimental group	-.8435*	.24242	.004
	Placebo group	.0270	.24242	1.000
Placebo group	Experimental group	-.8704*	.24242	.003
	Control group	-.0270	.24242	1.000

According to the Bonferroni test results, when Table 7 is examined it was found that there was a significant difference between the mean life satisfaction scores of participants in the experimental group and the control group (.84, $p = .00$). Based on this finding, it can be said that the life satisfaction levels of participants in the experimental group increased after the ACT-based intervention programme. Furthermore, a statistically significant difference was found between the mean life satisfaction scores of participants in the experimental group and the placebo group (.87, $p = .00$). Based on this result, the life satisfaction levels of participants in the experimental group increased after the intervention program.

The graph of the change in the life satisfaction mean scores of participants in the experimental, control, and placebo groups is shown in Figure 3.

Fig. 3.

Graph of Change in Life Satisfaction Scores for Pretest-Posttest-Follow-up



As shown in Figure 3, while the mean life satisfaction scores of participants in the experimental, control, and placebo groups were close to each other in the first measure, it can be seen that the situation changed in favour of the experimental group in the second and third measures. Accordingly, the life satisfaction levels of participants in the experimental group increased. In other words, the fourth hypothesis of the study, namely that "The ACT-based

Psychoeducation Programme, will increase life satisfaction levels in parents of disabled children, and this increase will be sustained," was accepted.

Discussion

Acceptance and commitment therapy (ACT), which is among the third-wave cognitive behavioral therapies (CBT), stands out with its holistic approach towards human nature, human behavior, and psychopathology, and with its study findings supported by empirical data (Yavuz, 2015). According to this approach, pain is an integral part of human life. Throughout their lives, people may inevitably have many painful experiences and experience feelings such as sadness, grief, failure, inadequacy, and disappointment. People tend to solve the problems they experience as soon as possible. However, the more they evade and try to be free of problems, the more painful feelings and thoughts become. However, these feelings and thoughts are not things people need to rid themselves of, but rather they are part of the individual's personal history (Kul & Türk, 2020). The primary purpose of the ACT approach is to support the individual in living a more meaningful life, with an accepting attitude that aligns with their values by strengthening their psychological flexibility (Hayes, 2004).

The first finding made in this study was that there was a significant decrease in participants' posttest and follow-up test scores for psychological inflexibility due to the applied psychoeducation program, that is, an increase in their psychological flexibility. This result shows that the first hypothesis of our study, namely that "the ACT-based Psychoeducation Programme will increase psychological flexibility levels in parents of disabled children, and this increase will be sustained," was supported. The main goal of the ACT approach is to increase psychological flexibility, and this finding shows that the applied psychoeducation program achieved it.

When the literature is examined, there is a growing number of studies on the psychological flexibility levels of parents of disabled children. In many studies, including ours, an increase in parents' psychological flexibility levels occurred after ACT-based interventions. Previous studies show that along with increases in the level of psychological flexibility, this correlates with positive changes in various problems experienced by parents. For example, in a study evaluating the effectiveness of a psychoeducation program prepared based on the ACT approach for parents of children with autism spectrum disorder (ASD) in the USA, it was observed that participants experienced improvements in their depression and distress levels. Although these improvements were not statistically significant, they were maintained in follow-up tests (Blackledge & Hayes, 2006). Similarly, in a study conducted by Montgomery (2015), it was observed that an applied psychoeducation program had positive effects on parents. There was a decrease in their depression levels, although this decrease was not statistically significant, and parents' quality of life increased significantly. In a study by Gur and Reich (2023), the literature on psychological flexibility in parents of disabled children was systematically reviewed through five electronic databases (PsychNet, PubMed, ERIC, Social Services Abstracts, and EBSCO). The first of the three themes that emerged from the 26 studies examined within the scope of the review was that interventions based on the ACT approach effectively increase psychological flexibility in parents of disabled children. The two other themes were that psychological flexibility relates to various aspects of mental health and parental functioning in caring for children with disabilities.



In the national literature, a limited number of studies exist that include ACT-based interventions for parents of disabled children. A study conducted by Gümüş (2020) found that the prepared ACT-based psychoeducation program increased psychological resilience scores in parents of disabled children and led to a significant decrease in their mean scores for anxiety, depression, stress, psychological inflexibility, and care burden. In Tümlü's (2021) study, a psychoeducation program based on ACT and prepared for parents of children aged 3-6 years with ASD had a positive effect on psychological flexibility, psychological resilience, and marital satisfaction in both mothers and fathers, and a significant effect on improving parents' psychological adaptation.

The second finding of our study is related to the effect of our prepared psychoeducation program on death anxiety in parents of disabled children. Humans are the only beings aware that they exist and will die one day (Yalom, 2008). Knowing that one day they will die causes considerable turmoil and anxiety in people. Although it is regarded as a natural event, it is not easy for a person to accept the reality of death and to submit to it. As a phenomenon external to people, over which they have no control and cannot prevent, death is perceived by the individual as a threat to his/her existence. As a result, mortality causes anxiety in people (Tanhan, 2022). In parents of disabled children, death anxiety is considered chiefly together with their concerns for their children's future, and consequently, the anxiety they experience may become more complex, and their death anxiety may be higher than that of parents without disabled children (Altıntaş et al., 2020; Koca, 2017).

According to the second finding of our study, there was no significant difference among the death anxiety levels of the experimental, control, and placebo groups following the psychoeducation program. When the literature was examined, no study was found in the international, or national regarding the effect of ACT-based interventions on death anxiety levels in parents of disabled children. Although the study groups were different, two studies were found that focused on the effect of ACT-based interventions on participants' death anxiety, with findings parallel to those of our study. In a study conducted in Iran, the effect of an ACT-based intervention on death anxiety levels in advanced cancer patients was examined. As a result, no significant difference was found between the death anxiety levels of the intervention and control groups (Sahebanmaleki et al., 2022). The other study was conducted in Australia and examined the role of psychological flexibility in psychosocial distress, death anxiety, pain, and quality of life in people receiving palliative care. The study observed no significant difference between the intervention and control groups in terms of people's psychological flexibility levels (Martin & Pakenham, 2022). Unlike the results obtained in our study, various studies have concluded that there is a negative relationship between the two variables; in other words, if psychological flexibility increases, death anxiety decreases (Jafarzadeh et al., 2021; Kolahdouzan et al., 2020).

The third finding of our study concerns the effect of the developed psychoeducation program on burnout levels in parents of disabled children. Having a disabled child brings many stress factors into parents' lives. Many factors, such as child care, division of labor in the family, and the need to redefine roles and responsibilities for other individuals in the home, can be a cause of stress for parents (Cin et al., 2017; Gördeles Beşer & İnci, 2014). Moreover, disability is a condition that does not change quickly and usually lasts a lifetime. Exposure to these long-term stress factors can result in parents of disabled children experiencing burnout.

According to the conducted analysis, there was no significant difference in the burnout levels of the experimental, control, and placebo groups following the ACT-based psychoeducation program. No study has been found in the literature on the effectiveness of ACT-based interventions on burnout in parents of disabled children. In a study similar, researchers discussed whether psychological inflexibility predicted various forms of psychological distress (burnout, depression, stress, and anxiety) experienced by parents of children with chronic illnesses results showed that psychological inflexibility had a central role in predicting the occurrence of psychological distress in parents of children with chronic disorders (Sairanen et al., 2018). In a study conducted in the USA examining the effects of ACT-based workshops on stress, depression, and burnout levels in preschool teachers serving children with developmental disabilities, it was shown that the ACT-based interventions were effective in reducing these levels (Biglan et al., 2013).

The fourth finding of our study concerns the effect of the prepared psychoeducation program on life satisfaction among parents of disabled children. Life satisfaction refers to the attitudes and reactions people exhibit toward their own lives. It is stated that individuals with high life satisfaction have lower stress and anxiety levels and more positive mental states (Köker, 1991).

The analysis revealed a significant increase following the intervention program in the life satisfaction levels of participants in the experimental group after the intervention program. No study was found in the literature discussing the impact of ACT-based interventions on life satisfaction levels in parents of disabled children. Therefore, the studies examined the effects of ACT-based interventions on various variables similar to life satisfaction (subjective well-being, quality of life). In a study conducted in Italy, the effect of a 24-week ACT-based intervention program on well-being levels in parents of children with ASD was examined. As a result, there was an increase in parents' psychological flexibility levels and in awareness states and a decrease in parental stress and perceptions of their children's destructive behaviors (Marino et al., 2021). As a result of an ACT-based intervention carried out in Egypt and applied to mothers of children with cerebral palsy, mothers' levels of stress and future anxiety decreased, and their quality of life increased (Hasan Alam et al., 2023).

In conclusion, it was observed that the psychoeducation program increased psychological flexibility and life satisfaction levels in parents of disabled children to a statistically significant degree. In contrast, the changes in death anxiety and burnout levels were not statistically significant. In addition to the activities and the homework provided to support these activities within the framework of the psychoeducation program, the fact that participants were able to come together and share their experiences with individuals who had similar experiences and find the opportunity to express themselves is also a factor that may have had an impact on increasing their psychological flexibility and life satisfaction levels.

Certain characteristics of the study group were considered to have contributed to the limited change in death anxiety and burnout levels despite the increase in their psychological flexibility levels. Factors such as participants' intense concerns about their children's future and the existence of various negative examples may justify these concerns. For example, the decline in child care after the loss of a parent and some children having to be placed in care centers because there is no one to care for them may exemplify such concerns. Additionally, the dominance of cultural and religious interpretations of death may be associated with the results obtained regarding death anxiety. During the study, it was observed that participants were reluctant to express their agreement with negative statements in the burnout scale and made



a special effort to avoid discussing the care of their children negatively within the practices of the psychoeducation program. It was interpreted as the underlying reason for this was the concern that a negative statement about the care of their children would be regarded as a religious sin or a social disgrace. It was considered that this anxiety may have led parents to give similar answers in the measures related to burnout and that, therefore, it may have been reflected in the results obtained regarding burnout.

Limitations

The study groups of ACT-based studies conducted in the national literature generally consist of university and high school students (Seyrek & Ersanlı, 2017; Usta, 2017; Vangölü, 2022), while the fact that the number of studies on parents of disabled children is limited is evident (Gümüş, 2020; Tümlü, 2021). When the study groups of research on parents of disabled children are examined, it can be seen that they are composed of relatively developed regions. When we examine the study group of our research, a significant percentage of participants were illiterate or literate but without a diploma. Furthermore, the native language of some of the participants was Kurdish, and they learned Turkish as a second language for the purposes of the study. While these characteristics of the participants made the study unique, they also led to various limitations during the data collection process and the implementation of the psychoeducation program. To overcome the limitation caused by participants' literacy levels, the scale items were read aloud to individuals who required it during the application of the scales. Their responses were marked, and during the applications, the approval of the participants and the assistance of a leader, audio recording was utilized. To overcome the limitation caused by language differences, Kurdish was also used spontaneously when necessary, both when completing the scales and during the implementation of the psychoeducation program.

As another limitation, the study was planned to include mothers and fathers but could only be carried out with mothers. While creating the research study group, four fathers who volunteered to participate were reached in the first stage. One of these four fathers stated that he was to go out of town to work in construction, while another father stated that he could not participate in the study due to health problems. The remaining two fathers were not included in the study, considering the warnings in the literature that the presence of participants of the opposite sex will reduce the participation of participants in activities and create problems with self-disclosure (Güçray et al., 2009), and therefore, the study groups were made up of mothers only. Although the study group consists only of mothers, which is a limitation of the study, a review of the literature shows that the mother is generally accepted as the first person in the family to care for the children and that the studies are mostly carried out with mothers (Cin et al., 2017; Duygun, 2001). Therefore, this situation was considered an acceptable limitation of the study.

Recommendations

This section includes recommendations for researchers and ACT practitioners based on the research process and the obtained findings.

1. This study was planned to be conducted with a study group of mothers and fathers, but instead was continued with only mothers in the actual process. Studies involving both mothers and fathers can be conducted.

2. This study was conducted with parents of disabled children who had limited opportunities in terms of sociodemographic characteristics. The study results can be tested with groups with different sociodemographic characteristics.
3. Future ACT-based studies can be made more effective by investigating metaphors frequently used in the region where the study group lives, and that people in that region are more familiar with. Including these metaphors in the studies can enhance effectiveness.
4. Considering the positive results in the literature on the effectiveness of ACT-based interventions and the challenges faced by parents of disabled children, increasing ACT-based interventions for parents of disabled children is recommended.

References

- Altıntaş, T., İspir, K., & Şahin, S. (2020). Atipik ve tipik gelişim gösteren çocuğa sahip annelerin ölüm kaygısına ilişkin görüşlerinin incelenmesi [Examining the views of mothers with atypical and typically developing children regarding death anxiety]. (Article in Turkish). *Cyprus Turkish Journal of Psychiatry and Psychology*, 2(1), 20-27. doi:10.35365/ctjpp.20.2.3
- Baker-Ericzén, M. J., Brookman-Frazee, L., & Stahmer, A. (2005). Stress levels and adaptability in parents of toddlers with and without autism spectrum disorders. *Research and Practice for Persons with Severe Disabilities*, 30(4), 194-204. doi: 10.2511/rpsd.30.4.194
- Baykan, Z., Baykan A., Naçar, M. (2010). Kronik hastalıkları olan çocukların ailelerinin yaşam doyumlarının incelenmesi [Life satisfaction in parents of chronically ill children]. [Article in Turkish]. *The New Journal of Medicine*, 27(3), 174-177.
- Baykoç Dönmez, N. (2010). Özel gereksinimli çocuklar ve özel eğitim [Children with special needs and special education]. In N. Baykoç (Ed.), *Özel Eğitim [Special education]* (pp. 13-26). *Gündüz Eğitim ve Yayıncılık*. Ankara
- Biglan A, Layton G.L., Jones, L.B., Hankins, M., Rusby, J.C. (2013). The value of workshops on psychological flexibility for early childhood special education staff. *Topics in Early Childhood Special Education*, 32(4), 196-210. doi: 10.1177/0271121411425191
- Blackledge, J.T., Hayes S.C. (2006). Using acceptance and commitment training in the support of parents of children diagnosed with autism. *Child and Family Behavior Therapy*, 28(1), 1-18. doi: 10.1300/J019v28n01_01
- Bond, F.W., Hayes, S.C., Baer, R.A., Carpenter, K.M., Guenole, N., Orcutt, H.K.,& Zettle, R.D. (2011). Preliminary psychometric properties of the Acceptance and Action Questionnaire-II: A revised measure of psychological inflexibility and experiential avoidance. *Behavior Therapy*, 42(4), 676-688. doi: 10.1016/j.beth.2011.03.007
- Büyüköztürk, Ş., Çokluk, Ö. & Köklü, N. (2019). *Sosyal bilimler için istatistik* (22th Edition). Pegem Akademik. Ankara
- Can, A. (2019). *Bilimsel araştırma sürecinde SPSS ile nicel veri analizi* (5th Edition). Pegem Akademik. Ankara
- Chong, Y. Y., Mak, Y. W., Leung, S. P., Lam, S. Y., & Loke, A. Y. (2019). Acceptance and commitment therapy for parental management of childhood asthma: An RCT. *Pediatrics*, 143(2). doi: 10.1542/peds.2018-1723
- Cin, F. M., Aslan Aydın, M., & Arı, E. (2017). Zihinsel engelli bireye sahip olan ebeveynlerin tükenmişlik düzeylerinin incelenmesi [Examining burnout levels of mentally disabled children's parents]. (Article in Turkish). *Istanbul Commerce University Journal of Social Sciences*, 16(31) 19-32.
- Corti, C., Pergolizzi, F., Vanzin, L., Cargasacchi, G., Villa, L., Pozzi, M., & Molteni, M. (2018). Acceptance and commitment therapy-oriented parent-training for parents of children with autism. *Journal of Child and Family Studies*, 27, 2887-2900. doi: 10.1007/s10826-018-1123-3



- Coşkun, Y., & Akkaş, G. (2009). Engelli çocuğu olan annelerin sürekli kaygı düzeyleri ile sosyal destek algıları arasındaki ilişki. [The relation which between anxiety level of the mothers who have disabled children and social support]. (Article in Turkish). Journal of Ahi Evran University Kırşehir Education Faculty, 10(1), 213-227.
- Dağlı, A., & Baysal, N. (2016). Yaşam doyumunu ölçeğinin Türkçe'ye uyarlanması: geçerlik ve güvenilirlik çalışması. [Adaptation of the satisfaction with life scale into Turkish: the study of validity and reliability]. Electronic Journal of Social Sciences, 15(59). doi:10.17755/esosder.263229
- Deniz, M. E., Dilmaç, B., & Arıca, O. T. (2009). Engelli çocuğa sahip olan ebeveynlerin durumluk-sürekli kaygı ve yaşam doyumlarının incelenmesi. [An analysis of life satisfaction and state-trait anxiety of the parents with handicapped children]. International Journal of Human Sciences, 6(1), 953-968.
- Diener, E. D., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. Journal of Personality Assessment, 49(1), 71-75. doi:10.1207/s15327752jpa4901_13
- Duygun, T., & Sezgin, N. (2003). Zihinsel engelli ve sağlıklı çocuk ebeveynlerinde stres belirtileri, stresle başa çıkma tarzları ve algılanan sosyal desteğin tükenmişlik düzeyine olan etkisi. [The effects of stress symptoms, coping styles and perceived social support on burnout level of mentally handicapped and healthy children's mothers]. (Article of Turkish). Turkish Journal of Psychology, 18(52), 37 – 52.
- Ergin, C. (1992). Doktor ve hemşirelerde tükenmişlik ve Maslach tükenmişlik ölçeğinin uyarlanması. [Burnout in doctors and nurses and adaptation of the Maslach Burnout Scale]. 7th National Psychology Congress, 22th September, Ankara
- Gördeles Beşer, N., & İnci, F. (2014). Zihinsel engelli çocuğu olan ailelere verilen grup danışmanlığının etkinliğinin değerlendirilmesi. [Evaluation of group counseling for families of intellectually disabled children]. (Article in Turkish). Journal of Psychiatric Nursing, 5(2). 84-91. doi:10.5505/phd.2014.94830
- Gur, A., & Reich, A. (2023). Psychological flexibility of parents of children with disabilities: A systematic literature review. Research in Developmental Disabilities, 136, 104490. doi:10.1016/j.ridd.2023.104490
- Gucray, S. S., Cekici, F., & Colakkadioglu, O. (2009). Psiko-egitim gruplarının yapılandırılması ve genel ilkeleri [Planning of psycho-educational groups and their principle]. (Article in Turkish). Mersin University Journal of the Faculty of Education, 5(1), 134-153.
- Gümüş E.Ç. (2020). Özel gereksinimli çocuğu olan ebeveynlere uygulanan kabul ve kararlılık terapisi temelli girişimlerin psikolojik sağlamlık depresyon anksiyete stres düzeylerine ve bakım yüküne etkisi. [The effect of acceptance and commitment therapy-based interventions applied to parents of children with special needs on psychological resilience, depression, anxiety, stress levels and care burden]. PhD Thesis, Akdeniz University, Antalya (Türkiye)
- Harris, R. (2009). ACT made simple: A quick-start guide to ACT basics and beyond. Oakland, New Harbinger Publications
- Harris, R. (2012). The reality slap: Finding peace and fulfillment when life hurts. Oakland, New Harbinger Publications.
- Hasan Alam, F., I EL Berry, K., Kamal Mohamed Sweelam, R., Mostafa Arrab, M., & Sh Shehata, H. (2023). Effectiveness of acceptance and commitment based intervention on stress, future anxiety and quality of life among mothers of children with cerebral palsy. International Egyptian Journal of Nursing Sciences and Research, 3(2), 281-306. doi:10.21608/ejnsr.2023.277922
- Hayes, S.C. (2004). Acceptance and commitment therapy, relational frame theory, and the third wave of behavioral and cognitive therapies. Behavior Therapy, 35(4), 639-665. doi:10.1016/S0005-7894(04)80013-3
- Hoyle, J. N., Laditka, J. N., & Laditka, S. B. (2021). Mental health risks of parents of children with developmental disabilities: A nationally representative study in the United States. Disability and Health Journal, 14(2), 101020. doi:10.1016/j.dhjo.2020.101020

- Jafarzadeh Dashbolagh, H., Hemmati, B., & Janghoo, E. (2021). Comparison of cognitive–emotional flexibility and death anxiety in people with and without traumatic experience. *Journal of Research in Psychopathology*, 2(3), 41-47. doi:10.22098/jrp.2021.1147
- Kaçan-Softa, H., Öztürk, A., Sonkaya, C., & Düşünceli, H. (2016). Zihinsel engelli çocuğu olan anne ve babaların aile yükü ve yaşam doyumlarının incelenmesi [Examining the family burden and life satisfaction of mothers and fathers of mentally disabled children]. (Article in Turkish). *International Journal of Psychiatry and Psychological Researches*, 5, 37-54.
- Kaçan, H., Sakiz, H., & Bayram Değer, V. (2022). Attitudes promoting coping with death anxiety among parents of children with disabilities. *Death Studies*, 46(9), 2046-2055. doi:10.1080/07481187.2021.1955311
- Kalaycı, S. (2014). SPSS uygulamalı çok değişkenli istatistiksel teknikleri. [SPSS applied multivariate statistical techniques]. (6th Edition) Asil Publishing Distribution, Ankara.
- Karaca, F., & Yıldız, M. (2001). Thorson-Powell ölüm kaygısı ölçeğinin Türkçe çevirisinin normal populasyonda geçerlik ve güvenirlik çalışması. [A study on the reliability and validity of thorson-powell's death anxiety scale in the normal population]. (Article in Turkish). *Tabula Rasa*, 1(1), 43-55.
- Koca, A. (2017). Engelli çocuğa sahip olan ve engelli çocuğa sahip olmayan annelerin ölüm kaygısı ve durumluk sürekli kaygı düzeyleri arasındaki farklılaşmanın incelenmesi [Investigation of the differences between death anxiety and state-trait anxiety levels of mothers with a disabled child and without a disabled child] Master Thesis, Hasan Kalyoncu University, Gaziantep (Türkiye)
- Köker, S. (1991). Normal ve sorunlu ergenlerin yaşam doyumu düzeyinin karşılaştırılması. [Comparison of life satisfaction levels of normal and problematic adolescents]. Master Thesis, Ankara University, Ankara (Türkiye)
- Kul, A., & Türk, F. (2020). Kabul ve adanmışlık terapisi (ACT) üzerine bir derleme çalışması. [A review on Acceptance and Commitment Therapy (ACT)]. (Article in Turkish). *OPUS International Journal of Society Researches*, 16, 3773-3805. doi: 10.26466/opus.741907
- Levin, M., & Hayes, S. C. (2009). ACT, RFT, and contextual behavioral science. *Acceptance and Commitment Therapy: Contemporary research and practice*, 1-40. doi:10.1016/j.beth.2009.08.002
- Marino, F., Failla, C., Chilà, P., Minutoli, R., Puglisi, A., Arnao, A. A., ... & Pioggia, G. (2021). The effect of acceptance and commitment therapy for improving psychological well-being in parents of individuals with autism spectrum disorders: a randomized controlled trial. *Brain sciences*, 11(7), 880. doi:10.3390/brainsci11070880
- Martin, C. L., & Pakenham, K. I. (2022). The role of psychological flexibility in palliative care. *Journal of Contextual Behavioral Science*, 24, 160-170. doi:10.1016/j.jcbs.2022.05.004
- Maslach, C., & Jackson, S.E. (1981). The measurement of experienced burnout. *Journal of organizational behavior*, 2(2), 99-113. doi: 10.1002/job.4030020205
- Montgomery D, 2015. The effects of Acceptance and Commitment Therapy on parents of children diagnosed with autism. PhD Thesis, Walden University. Available from <https://scholarworks.waldenu.edu/dissertations/591/>
- Oktar, M. N., & Yıldız, R. (2019). Zihinsel engelli çocuğu olan annelerin ölüm kaygısı ile sosyal politikalara güven ilişkisi. [Relationship between the death anxiety of mothers with mentally disabled children and trust in social policy]. (Article in Turkish). *Journal of Academic Inquiries*, 14(1), 463-498. doi: 10.17550/akademikincelemeler.478213
- Paixão, E. S., Rodrigues, L. C., Costa, M. D. C. N., Itaparica, M., Barreto, F., Gérardin, P., & Teixeira, M. G. (2018). Chikungunya chronic disease: a systematic review and meta-analysis. *Transactions of The Royal Society of Tropical Medicine and Hygiene*, 112(7), 301-316. doi:10.1093/trstmh/try063
- Pavot, W., & Diener, E. (1993). The affective and cognitive context of self-reported measures of subjective well-being. *Social indicators research*, 28, 1-20. Available from <https://link.springer.com/article/10.1007/BF01086714>
- Sahebanmaleki, M., Zandi, A., Sadeghi, Z., Nazari, H., Eshaghzadeh, M., & Shafiei, Z. (2021). The Effectiveness of Acceptance and Commitment-Based Therapy on the Death Anxiety of Patients



- with Advanced Cancer. *Clinical Schizophrenia & Related Psychoses*, 2(15),1-4 doi: 10.3371/CSRP.SMAZ.010622.
- Sairanen, E., Lappalainen, P., & Hiltunen, A. (2018). Psychological inflexibility explains distress in parents whose children have chronic conditions. *PloS one*, 13(7), e0201155. doi: 10.1371/journal.pone.0201155
- Seyrek, Ö.D., & Ersanlı, K. (2017). Üniversite öğrencilerinde yaşamın anlamı ile psikolojik esneklik arasındaki ilişki [The relationship between meaning in life and psychological flexibility of university students]. (Article in Turkish). *Electronic Turkish Studies*, 12(4). 143-162. doi:10.7827/TurkishStudies.10053
- Tanhan, F. (2022). Ölüm kaygısıyla baş etme eğitiminin ölüm kaygısı ve psikolojik iyi olma düzeyine etkisi [The effects of coping with death anxiety education programme on death anxieties and psychological well-beings]. PhD Thesis, Ankara University. (Türkiye).
- Thorson, J. A., & Powell, F. C (1992). A revised death anxiety scale. *Death studies*, 16(6), 507-521. doi: 10.1080/07481189208252595
- Tümlü, C. (2021). Kabul ve Kararlılık Terapisi'ne Dayalı Psiko-eğitim Programının Otizm Spektrum Bozukluğu Olan Çocuk (3-6 Yaş) Anneleri ve Babalarının Psikolojik Uyumlarına Etkisi. [The effect of the psycho-education program based on Acceptance and Commitment Therapy on the psychological adaptation of mothers and fathers of children (aged 3-6 years) with Autism Spectrum Disorder]., Anadolu University. (Türkiye)
- Usta, F. (2017). Kabul ve kararlılık terapisi yönelimli psiko-eğitim programının ergenlerin sosyal görünüş kaygısı ve kabul ve eyleme geçme düzeylerine etkisi. [Effects of acceptance and commitment therapy oriented psycho-educational program on social appearance anxiety and levels of acceptance and action among adolescents] PhD Thesis. Sakarya University. (Türkiye)
- Vangölü, M.S. (2022). Kabul ve kararlılık terapisi yönelimli psiko-eğitim programının ergenlerin psikolojik esneklik, psikolojik sağlamlık ve depresif belirti düzeylerine etkisi [The effect of acceptance and commitment therapy oriented psycho-educational program on psychological flexibility, psychological resilience and depressive symptom levels of adolescents]. PhD Thesis, Van Yüzüncü Yıl University. (Türkiye).
- Yalom, I. D. (2008). Staring at the sun: Overcoming the terror of death. *The Humanistic Psychologist*, 36(3-4), 283-297.
- Yavuz, F., Ulusoy, S., Iskin, M., Esen, F. B., Burhan, H. S., Karadere, M. E., & Yavuz, N. (2016). Turkish version of Acceptance and Action Questionnaire-II (AAQ-II): A reliability and validity analysis in clinical and non-clinical samples. *Bulletin of Clinical Psychopharmacology*, 26(4), 397-408. doi:10.5455/bcp.20160223124107
- Yavuz, K. F. (2015). Kabul ve kararlılık terapisi (ACT): Genel bir bakış. [Acceptance and Commitment Therapy (ACT): An Overview] (Article in Turkish). *Journal of Psychiatry Special Topics*, 8(2), 21-27. Available from <https://www.researchgate.net/publication/324994456>
- Yetim, Ü. (1991). Kişisel projelerin organizasyonu ve örüntüsü açısından yaşam doyumu. [Life satisfaction in terms of organization and pattern of personal projects]. PhD Thesis, Ege University. (Türkiye)