

Research Article

The Effect of Parent School Counseling Programs on Anxiety, Depression and Quality of Life

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Abstract: Parental anxiety and depression are factors that significantly affect the practice of parental role and have an impact on the upbringing of children and their quality of life. The purpose of this study is to investigate whether the counseling intervention that parents received during their participation in parent school programs reduced stress and depressive symptoms and improved their quality of life. A sample of 160 parents was collected from two independent groups: the experimental group consisting of 80 parents who participated in the program and the control group consisting of parents who after being informed about the implementation of the programs in their schools decided not to participate. The psychometric tools have been used are: The Spielberger Stress Trait Anxiety Inventory (STAI), the Beck depression Inventory (BDI), and the Health and well-being Questionnaire (The RAND 36-Item Healthy Survey, SF-36, Version 1.0). The results of the research confirmed the research hypothesis according to which the effect of the counseling intervention on the parents who participated in the parent schools affected the reduction of the stress index, state anxiety ($Z=-2,882$, $p=0,004$) and trait anxiety ($Z=-3,776$, $p<0,001$), the reduction of the depression index ($Z=-6,876$, $p<0,001$) and the improvement of their quality of life ($Z=-5,364$, $p<0,001$) especially of physical health ($Z=-4,529$, $p<0,001$) and emotional health ($Z=-4,529$, $p<0,001$).

Keywords: Parent Education Programs, Parent Schools, Anxiety, Depression, Quality of Life, Parent Counseling

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1. Introduction

An important factor that determines parents' stress is the beliefs they have about the difficulties of their role and their personal adequacy in it, as well as about their children's behavior [1]. Parents who perceive their children as demanding, moody, and who rate communication with each other as difficult report higher parenting stress [2]. Research by Reindl et al [3], Miller et al [4], Nguyen et al [5] shows that stress makes parents less sensitive to connecting with their children and less able to tune into the same frequency with their thoughts, feelings and their needs. Another also recent research by Atiqah Azahari and his colleagues [6] proves that the effect of parental stress has a significant negative effect on the degree of effective brain synchronization observed between each parent and their child. This means that the parents, due to the increased stress, presented a lack of focus and synchronization regarding the emotional state of their child. Among adults who presented with anxiety or mood disorders in their research, Antony and colleagues [7] observed that the majority had grown up with parents who were vulnerable, anxious, overprotective, discouraging, or depressed and who could not manage significantly events of their lives.

A significant number of scientists report that parental depression is a serious mental disorder and at the same time a risk factor for children's mental health [8,9]. Parental depression is primarily associated with deficits in interactions with children which in turn adversely affect their smooth social and emotional development [10]. Parents are arguably the most powerful social role model for their children [11]. The importance of successful attachment in the parent-child relationship is for the child to feel safe, protected and confident in order to set foot well [12]. A successful parental connection is the basis for good mental health of the child [13]. An insecure parental connection predisposes children to develop symptoms of depression and anxiety [14,15]. And makes them very sensitive during their adolescence and subsequent adulthood [16].

Shalock et al [17] argue that quality of life is influenced by personal factors such as living conditions and sense of well-being, and by environmental factors such as marital status, education and standard of living and all these in relation to health, the psychological state, the level of independence and the social relationships of each individual [18]. The consideration of the concept of quality of life is the sum of a series of objectively measurable life conditions that a person experiences such as physical health, social relationships, functional activities as well as subjective evaluation indicators concerning personal satisfaction with life [19]. According to this distinction, the following are considered as objective indicators: the living conditions, the natural environment, the residence, health, social integration, security from external risks, the financial coverage of needs, while subjective indicators are considered: the satisfaction with life, the feeling of adequacy and satisfaction with the functionality of the individual, the satisfaction with the services provided and the possibility to participate in various activities. Quality of life is a concept that essentially reflects a person's view of himself and is evaluated in comparison to the person and the circumstances [20]. Parents' sense of self-sufficiency, the satisfaction they derive from the parental role, fatigue and stress, have been found to influence their behavior and are indirectly related to their quality of life [21]. The quality of life concerns the daily functioning and well-being of the parents which in turn affects the behavior of the children, both during childhood and in their adult life [22]. Parental self-efficacy refers to the parent's belief in their ability to adequately respond to their parenting role. The concept of self-efficacy plays a decisive role in the behavior that parents display when interacting with their children and is closely related to children's development and psychosocial adjustment [23]. It appears that parents with high self-efficacy are responsive to their children's needs, provide stimulation and do not exhibit aggressive parenting behavior [24].

Effectiveness of training programs of parenting schools The ever-increasing need of parents for training and support in order to cope better with the exercise of their parental role has led many researchers to turn to the study of the effectiveness of parent training programs in terms of the mental and emotional assistance they offer to parents with the ultimate goal of improving of relationships with their children [25-28]. In Greece today, parenting school programs are available in almost every region. However, the research field regarding their effectiveness is quite limited [29,30]. The international literature and the research data of other countries are nevertheless quite important and give us enough information about the effectiveness of secondary and tertiary prevention programs as they emerge through a series of meta-analytic reports, quantitative surveys, literature reviews and through qualitative interviews and opinions of the parents themselves about the programs. Many parents in a series of qualitative studies [31-34] report that by participating in such programs they gained a lot of useful information, increased their confidence and improved their emotional state, they acquired new skills and enjoyed the support of other parents [35-37]. In fact, Kane and his colleagues [38] in their meta-ethnographic study of four qualitative studies in their attempt to evaluate parents' experiences and perceptions of the programs found that parents found these programs very useful through the acquisition of knowledge and skills that helped them reduce their stress and guilt thus feeling

more capable, less isolated and depressed with more empathy, understanding and trust towards their children. In fact, his research [39] states that parents ultimately found the education programs very useful even if they were forced or forced to go to them without it being their choice in the first place. In their review of the international literature, Moran and his colleagues [40] emphasize that in order to investigate what is effective and what is not in parenting programs, it would be appropriate to conduct randomized controlled studies in which there will be an experimental group, i.e. participants who will be compared before and after the intervention, and a control group, i.e. the parents who did not participate in the intervention and who, as a sample, do not differ from the participants. In another systematic review of the literature investigating 14 studies, Coren, Barlow and Stewart-Brawn [41] found that parenting programs significantly improved the emotional and psychosocial status of teenage mothers through stress reduction and education for successful coping of stressful situations. Recent research on 137 families showed that group intervention through training programs had positive effects on parents' mental health and their quality of life, contributing to the reduction of anxiety and depressive symptoms as well as improving their behavior towards children when exercising of their parental role [42-44].

The purpose of this research was to investigate whether the application of counseling intervention to parents, who participate in parenting school programs, affects their anxiety, depression and quality of life. Although a multitude of researches have been conducted abroad with the aim of investigating the effectiveness of these programs, in the Greek area there are not enough researches and studies on parents on the effect of counseling on these three variables and on the correlations between them. The main research hypothesis is that the counseling intervention affects the psychometric characteristics of the parents, bringing about a reduction of anxiety, a reduction of the depression index and an improvement of their quality of life.

2. Method

2.1. Research design

The survey is addressed to parents of primary school children, who were informed about the implementation of a parent counseling program. This is an interventional study in which before and after were investigated. The dependent variables were the indicators of anxiety, depression and quality of life, before and after counseling and the independent variable was the intervention.

2.2. Participants

A representative sample of 160 parents, who belonged to two independent groups, was collected from all the parents who were informed about the program in schools in the western and central areas of Thessaloniki. The control group consists of 80 parents, who were informed about the goals and details of the program but ultimately decided not to participate, while the research group was formed by the 80 parents who attended the program successfully. The response rate was high reaching 99%. Only one parent left the program in the middle of the process. Data collection took place from November 2019 to February 2020.

2.3. Sampling process

The completion of the questionnaires by the research team was implemented in two phases, before and after the intervention. The first phase of sampling took place at the beginning of the counseling intervention in November 2019 and the second at the end of the program in February 2020. The research team completed the counseling program in 12 two-hour sessions over a period of three months. The control group answered the same questionnaires, only once, after the end of the counseling program, in the corresponding

time period, without receiving intervention. Before the start of the procedure, a demographic information sheet and a unique personal code were given to each participant in order to maintain anonymity, to ensure the confidentiality of responses and his identification, in order to correctly match the pre- and post-intervention questionnaires. The total completion time was estimated at 20-30 minutes on average, for each phase, after clear instructions were given beforehand. At the same time, they were informed about the purpose of the research but also about maintaining the anonymity and confidentiality of their personal information and the possibility of withdrawing from the research at any time they wish. The research protocol was approved by the people in charge of the counseling programs, in order to proceed with the distribution of the questionnaires while the consent of the principals and responsible parents of the schools was requested for access to the school premises.

2.4. Selection and exclusion criteria

The selection criteria of the sample were the following:

1. Parents over 18 whose children attend primary schools.
2. The parents have been informed about the operation of the parent school programs.
3. Satisfactory level of cooperation and comprehension. The exclusion criteria were: The parents must have attended another parenting school program.

2.5. Research tools

To conduct the research, three questionnaires were used. The first is Spielberger's State-Trait Anxiety Inventory [45]. The anxiety questionnaire consists of 40 questions. 20 of them refer to present situation anxiety and the other 20 to general anxiety as a personality trait of a person. Scoring is done on a 4-point Likert scale from 1 to 4. In situation anxiety, the corresponding verbals are "not at all" for the value 1 to "very much" for the value 4, while in personality anxiety the value 1 corresponds to the verbal "almost never" and at value 4 "almost always". The index values are the sum of each answer's score, after previously recalculating the values for the reverse questions. Reversed questions are those with positive conceptual content, indicating reduced anxiety. To measure depression, the Beck Depression Inventory (BDI) was deemed appropriate [46]. The Beck Depression Inventory is a multiple-choice, self-report questionnaire and consists of 21 parameters. The answers are gradational. It is one of the most widely used instruments for measuring the severity of depression, from a psychodynamic point of view, while it relies less on the patient's thoughts. In its current form the questionnaire consists of factors related to symptoms of depression, such as hopelessness, irritability, guilt, or feelings such as fatigue, weight loss and lack of sexual interest. To assess quality of life, the RAND 36-Item Healthy Survey (SF-36, Version 1.0) was used [47]. The SF-36 Health Survey expresses general health conditions that are not identified as specific to any disease or treatment. It consists of 36 questions of various grading scales. Quality of life is determined by individual factors, such as physical, psychological and social functioning, energy/fatigue, emotional well-being, general health. The final factor measurement scale is 0-100. The questionnaire has very good reliability and validity [48,49].

2.6. Statistical analysis

SPSS v. software was used for data analysis. First, an analysis was made of the descriptive sample sizes. Then, the quantitative indices measuring the psychometric characteristics were calculated. The normality of variables was tested with the Kolmogorov-Smirnoff test. The effectiveness of the intervention in the experimental group was checked, with a test of equality of differences of paired observations (Paired-Samples T

test / Wilcoxon), regarding the possible reduction of anxiety, depression and improvement of the quality of life. All statistical tests were performed at a significance level of $\alpha=0.05$.

3. Results

3.1. Demographic characteristics

Of the 160 parent participants in the sample, 119 (74.4%) were women and 41 (25.6%) were men. Comparing the two groups, it was observed that only 34% of the men, who were informed about the parenting counseling program, actually attended it. Parents' age ranged between 22 and 61 years ($M=42.48$, $SD=6.05$). The control group scores slightly higher ($M=43.68$, $SD=5.2$) than the research group ($M=41.28$, $SD=6.6$). The average age of men in all respondents was higher than that of women ($M=44.56$, $SD=5.8$ vs. $M=41.76$, $SD=6$ years). A similar age difference between the two groups was noted between both sexes (control group: male $M=45.81$, $SD=5.4$, female $M=42.58$, $SD=4.8$ and research group: male $M=42.14$, $SD=5.6$, women $M=41.09$, $SD=6.8$). The majority of participants have 1-2 children (78.7%). In the research group, it was observed that families with one child correspond to a percentage of 43.8% against 12.5% of the control group, in which several families with many children are also found. More generally, the average number of children per family is higher in the control group ($M \approx 2.28$) than in the research group ($M \approx 1.74$). (The average values were approximated by assuming that large families have exactly four children. The actual values are higher and the differences in the average values between the two groups are even greater.) 25% of parents who attended the program received professional help, compared to only 8.8% of parents in the control group. The single-parent families of the sample amount to 9.4% and are divided into the two groups. Regarding the financial situation of the families, it is generally characterized as moderate to good (94.4%). 93.2% of men work, while in 51.3% of couples both partners work. 88.8% of parents state that they have a satisfactory social life. 94.4% of the families have a moderate to good financial situation and 88.8% have a moderate to good social life. In addition, 41.3% receive financial assistance, which indicates either that the income from work is not sufficient or that they have the possibility to further strengthen their financial comfort. Of the parents who attended the program, 50% received financial assistance compared to 32.5% of those who chose not to attend.

3.2. Testing the effect of parent counseling on quality of life, anxiety and depression

The variables of quality of life, anxiety and depression, were calculated before and after the implementation of the parent counseling program and the results of the research group were compared before and after, in order to examine whether the program actually had an effect on the improvement of these indicators. Also, a comparison was made of the indicators of the research group before and after the intervention with the corresponding indicators of the control group, in order to investigate the difference between the two groups. Below are summarized the main descriptive values of the indicators, based on the collected sample, in order to give an image of the initial situation of the two groups. Descriptors are the mean and standard deviation for the two groups. A comparison of the two independent groups follows to investigate baseline differences.

As can be seen in [Table 1](#), the parents who finally decided to attend the counseling program were in a worse position than those who did not, in terms of quality of life, the stress they experience and the degree of depression they note. All individual indicators referring to their physical and emotional health are also lower in the research group. The results of the independent samples test confirm the statistically significant difference between the two groups. A non-parametric test of dependent samples (Wilcoxon) followed in the research group, to finally examine the effectiveness of the intervention method. The test results are summarized in [Table 2](#). It is clear that there is a statistically significant

difference in all indicators, which confirms our research hypothesis. From the differences in the average values, it is confirmed that the intervention brings about an improvement in the indicators of the research group. This was followed by a comparison of the mean values of the indicators of the research group after the completion of the intervention with the corresponding mean values of the control group, in order to investigate whether there are still statistically significant differences. From Table 3 it can be seen that the initial differences in the two groups have almost leveled off after the counseling intervention, to such an extent that the initial statistically significant difference no longer exists in almost all the dependent variables. Mann-Whitney tests showed that there was still a significant difference between the two groups in limitations due to physical condition ($U=2525.0$, $p=0.019$) and limitations due to emotional state ($U=2540.0$, $p=0.022$).

Table 1. Comparison of indicators of the research group before the implementation of the counseling method and the control group. Independent samples variation test.

Dimension	(N=80) Research Group (Before)		(N=80) Control Group		Test	p value
	M	SD	M	SD		
Quality of life	66,31	11,38	73,35	11,46	$t=-3,898$	<0,001*
Physical functionality	80,06	14,66	83,87	17,24	$U=2524,5$	0,020*
Restrictions due to physical state	71,56	18,22	84,45	17,64	$U=1786,0$	<0,001*
Limitations due to emotional state	69,06	16,78	79,27	18,17	$U=2137,5$	<0,001*
Energy / Fatigue	50,93	17,68	58,51	16,55	$t=-2,798$	0,006*
Emotional well-being	55,75	18,30	63,75	14,65	$U=2446,0$	0,010*
Emotional functioning	65,94	21,23	75,15	21,09	$U=2385,5$	0,005*
Physical pain	67,72	20,96	73,68	19,85	$U=2672,0$	0,069
General health	57,75	16,20	64,93	18,25	$U=2362,5$	0,004*
Physical health	69,27	13,01	76,73	13,83	$t=-3,517$	0,001*
Emotional health	60,42	14,87	69,17	13,97	$t=-3,835$	<0,001*
Stress						
State anxiety	47,24	6,69	44,14	8,16	$t=2,626$	0,010*
Trait anxiety	44,91	5,75	39,88	9,44	$t=4,074$	<0,001*
Depression	14,41	6,77	7,36	6,78	$U=1439,5$	<0,001*

Table 2. Comparison of indicators before and after the intervention in the research group (N=79).

Dimension	Before	After	Mean Differences (After-Before)	Test (Z)	p-value
Quality of life	66,31	73,09	6,78	-5,364	<0,001*
Physical functionality	80,06	84,56	4,50	-2,681	0,007*
Restrictions due to physical state	71,56	75,31	3,75	-2,587	0,010*
Limitations due to emotional state	69,06	74,27	5,21	-2,461	0,014*
Energy / Fatigue	50,93	61,95	11,02	-4,883	<0,001*
Emotional well-being	55,75	65,37	9,62	-4,467	<0,001*
Emotional functioning	65,94	76,56	10,62	-4,607	<0,001*
Physical pain	67,72	72,68	4,96	-2,189	0,029*
General health	57,75	66,31	8,56	-3,717	<0,001*
Physical health	69,27	74,71	5,44		
Emotional health	60,42	69,54	9,11	-4,529	<0,001*
Stress				-5,561	<0,001*
State anxiety	47,24	44,99	-2,25	-2,882	0,004*

Trait anxiety	44,91	41,78	-3,13	-3,776	<0,001*
Depression	14,41	7,80	-6,61	-6,876	<0,001*

Table 3. Comparison of mean indicators of the research group before the implementation of the counseling method and the control group. Independent samples variation test.

Dimension	(N=79)		(N=80)		Test	p value
	Research Group (After)		Control Group			
	M	SD	M	SD		
Quality of life	73,09	11,54	73,35	11,46	t=-0,607	0,544
Physical functionality	84,56	12,93	83,87	17,24	U=2866,8	0,247
Restrictions due to physical state	75,31	21,30	84,45	17,64	U=2525,0	0,019*
Limitations due to emotional state	74,27	20,50	79,27	18,17	U=2540,0	0,022*
Energy / Fatigue	61,95	18,01	58,51	16,55	t=0,235	0,815
Emotional well-being	65,37	15,13	63,75	14,65	U=3,007,5	0,508
Emotional functioning	76,56	20,80	75,15	21,09	U=3,194,0	0,983
Physical pain	72,68	22,78	73,68	19,85	U=3127,0	0,801
General health	66,31	15,58	64,93	18,25	U=3,197,5	0,993
Physical health	74,71	14,24	76,73	13,83	t=-0,653	0,515
Emotional health	69,54	13,92	69,17	13,97	t=-0,844	0,400
Stress						
State anxiety	44,99	7,23	44,14	8,16	t=0,737	0,462
Trait anxiety	41,78	7,10	39,88	9,44	t=1,376	0,171
Depression	7,80	6,35	7,36	6,78	U=2738,5	0,114

4. Discussion

Counseling interventions of parenting schools from the early stages of the child's development seem to be able to contribute to the modification of dysfunctional behaviors of both parents and children and prevent them from developing into serious problems in their adult lives. They can act as mechanisms that help parents get close to their feelings, explore them, get to know them better and move towards self-awareness [50]. Prevention programs such as those of parenting schools will aim to increase the knowledge, awareness and skills of parents to recognize but also to reduce dysfunctional emotions and situations both for themselves and for their children. The parent counseling program resulted in a significant reduction in anxiety and depression scores, which led to an increase in the participants' self-rated quality of life. This is related to the previous findings of other research such as MacNeil [35], Barlow & Stewart-Brown [32], which show that education programs that are done to support and train parents in managing dysfunctional emotions, such as anxiety and depression are effective. They also agree with the findings of Link [33], Budd et al. [32] who argue that with the aim of improving the relationship and communication with children, many parents through them significantly improve their emotional and social well-being. They also agree with the results of studies that state that parents by participating in the training programs not only got very important information and acquired skills but also significantly increased their self-confidence after they managed to improve their bad emotional state [38,39,41]. Research by McMahan and his colleagues [43], as well as by Chadwick and his colleagues [44] come to show results consistent with this study as they argue that parent education programs have positive effects specifically on mental health and quality of life contributing to the successful reduction of participants' anxiety and depressive symptoms.

As mentioned above in the importance of research, unfortunately in Greece there are not enough published studies that examine this type of data so that the results of this particular study can be compared with them [30,31]. On the other hand, in terms of international literature, there is a considerable number of researches, meta-analyses, and literature reviews that evaluate and demonstrate the effectiveness of parent education programs. However, the results of most of the above research examine secondary and tertiary prevention parent education programs, which are aimed at specific groups of parents, without presenting enough evidence for programs aimed at the general population. The parenting school programs are aimed at the general population since any parent can attend them with their main objective being prevention and not treatment. Thus, the comparison of the results of the present study is made with the research data of the international literature which is mainly available in the secondary and tertiary prevention. As far as the sample of this study is concerned, this concerns a very small percentage of parents who participate in parenting schools throughout Greece. Therefore, it is not possible to generalize to the entire population of parents who participate in them. The results obtained from the present study can be further investigated in samples of parenting schools and from other regions of Greece (Central and Regional), giving the possibility of controlling the variables under study and comparing the results, so that they can be more general and safer conclusions. The indicators of the control group were recorded only once, after the completion of the intervention, in contrast to the research group, which completed the questionnaires twice, once before and once after the intervention. Under this option, it has been accepted that the choices of the control group are not influenced by extraneous factors other than the counseling intervention.

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