

The Role of Psychological Resilience in Predicting Parenting Self-Efficacy Perceptions of Patients Applying to Breast Polyclinic

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Abstract

The primary objective of this study is to investigate the relationship between psychological resilience levels and parenting self-efficacy perceptions of mothers with children aged 0-8 years who applied to the breast polyclinic. The study adopted a quantitative research design utilizing a relational screening approach, and it involved a cohort of 282 willing mothers, selected through a criterion sampling technique. "Personal Information Form", "Psychological Resilience Scale for Adults", "Revised Berkeley Parenting Self-efficacy Scale" were used as data collection tools. The investigation of interrelationships among variables was conducted through both correlation analysis and structural equation modeling. The study's outcomes reveal a discernible positive association between participants' psychological resilience and their perceptions of parenting self-efficacy. It was found that the highest relationship with the parental strategies dimension of parenting self-efficacy was with the social resources dimension of psychological resilience, and the highest relationship with the perception of future dimension of psychological resilience was with the child outcomes dimension of parenting self-efficacy. Path analysis outcomes substantiate that psychological resilience and its dimensions positively predict parenting self-efficacy. In alignment with these empirical findings, it was concluded that there is a positive relationship between psychological resilience and its dimensions and parenting self-efficacy.

Key Words

Mother • Parent • Psychological resilience • Self-efficacy

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Introduction

Family refers to a complex whole that lasts for generations, interacts with each other and the members of which have different roles. The concept of parent is used to refer to the mother and father as a family subsystem (Sanrock, 2014). Parenting is defined as the behavioral effort of the parent in the process of supporting the cognitive, social-emotional and physical development of the child. Effective parenting practices provided by parents to children in early childhood, which is the most critical period of childhood (0-8 years), directly affect children's development and self-formation (De Carli et al., 2018; Johnston & Halocha, 2010). Hence, it is evident that the parental self-efficacy perception plays a pivotal role in coping with different situations that may develop with their child. Parenting self-efficacy is defined as the extent to which parents fulfill the tasks related to child raising, their belief in managing parental situations and their ability to perform effectively in various situations (Gross et al., 1995).

Bandura (1997) stated that individuals' efficacy beliefs are among the basic qualities of effective parenting practices. Moreover, Teti and Gelfand (1991) have conducted research indicating that maternal self-efficacy beliefs have a mediating role between many psychosocial variables. Furthermore, they have also observed that self-efficacy exerts a mediating influence between depression, perceived social support, newborn temperament and maternal behaviors. Luebering (1995) observed a positive relationship between parenting self-efficacy perceptions and beliefs about infant care in first-time mothers. The study also revealed a relationship between maternal roles and parenting self-efficacy. The deduction drawn from the study underscores that mothers who were happy with their maternal experience felt more competent. Therefore, perceived parenting self-efficacy is an element that provides insight for parents to exhibit appropriate parenting skills and behaviors for their children (Coleman & Karraker, 2000).

In conjunction with the assessment of self-efficacy perception, parents' own psychological resilience levels are also considered as a significant contributory factor in effectively managing the challenges and stressors that may emerge within the parental role. Psychological resilience is defined as the ability of individuals to adapt to and cope with negative situations (Alvord & Grados, 2005). In the context of parental dynamics, psychological resilience is the ability to overcome negative situations successfully and the high self-repair capacity of family members (Becvar, 2013). Studies indicate that as parenting self-efficacy increases, negative psychological symptoms in families decrease (Kobasa et al., 1982). Kobasa, Maddi and Khan (1982) found that psychological resilience is effective in individuals' ability to cope with stress and good health, and that individuals with high psychological resilience have a positive perspective towards themselves and the environment. When an evaluation is made in the light of relevant information, it becomes imperative to delineate the impact of psychological resilience levels, which are closely related to the general health status, of mothers with children in early childhood who apply to breast polyclinic due to different disorders, on parenting self-efficacy perceptions. When the thorough review of the pertinent scholarly literature is examined, it reveals that the relationship between psychological resilience and self-efficacy of parents whose children have been diagnosed with cerebral palsy and autism spectrum disorder has been examined (Çiğdem, 2022; Rezendes & Scarpa, 2011; Uçar, 2021). In addition, other elements with which these concepts are frequently associated are parental attitudes (Kurt & Aslan, 2020), self-understanding (Arıcı & Artan, 2022), social support, and parent-child relationship (Çakır & Kıziler, 2022). The study cohorts in the aforementioned

investigations encompass parents and children diagnosed with different types of diseases and exposed to processes involving various problems. In essence, the construct of psychological resilience, commonly linked with navigating adversarial circumstances, affects all life areas of individuals to a certain extent. In this sense, the study was planned based on the idea that all mothers with different characteristics, with and without chronic conditions, have the same anxieties and fears when applying to the breast polyclinic. Therefore, it is valuable to examine psychological resilience, which is thought to be a predictor of parenting self-efficacy perception, in these patients. In this context, the aim of the study is to examine the relationship between psychological resilience levels and parenting self-efficacy perceptions of mothers with children aged 0-8 years who applied to the breast polyclinic.

Method

Participants

The collection for this research, employing a quantitative design and a relational screening method was conducted within the timeframe spanning from September 2022 to October 2022. The inclusion criteria established for the participants were that they had applied to the breast polyclinic and had children aged 0-8. In alignment with these criteria, the study was conducted with 282 mothers who voluntarily accepted the application. Consents of the participants were obtained through an informed consent form. When the information obtained from the personal information form of the participants was analyzed, it was determined that 25.2% of the participants were 35 years old or younger, 22.7% were 36-40 years old, 22.7% were 41-45 years old and 29.4% were 46 years old or older. It was determined that 38.7% of the participants were primary school graduates, 19.5% were secondary school graduates, 26.6% were high school graduates, 15.2% were undergraduate graduates, 85.8% were not working and 14.2% were working. Of the participants, 44.3% had a family income of 0-7 thousand TL, 41.8% had a family income of 7-14 thousand TL and 13.8% had a family income of 14 thousand TL or more, 18.8% had been married for 6-10 years, 16.7% had been married for 11-15 years, 17% had been married for 16-20 years, 47.5% had been married for 20 years or more, 7.1% had one child, 36.2% had two children, 39.7% had three children and 17% had four or more children. It was determined that 44% of the participants had a diagnosed condition, while 56% did not have any diagnosed condition.

Data Collection Tools

Psychological Resilience Scale for Adults, originally devised by [Friborg et al. \(2005\)](#), serves as a tool for assessing the psychological resilience levels exhibited by individuals. The adaptation of the Psychological Resilience Scale for Adults into the Turkish language was undertaken by [Basim and Çetin in 2011](#). It is a 5-point Likert type scale and has 33 items. The scale has 6 dimensions: self-perception, future perception, structural style, social competence, family cohesion and social resources. Sample statements are "When something unexpected happens...I always find a solution...Most of the time I don't know what to do..." and "In difficult times...I have a tendency... who sees everything as hopeless...finding something good that can lead me to success...". The internal consistency coefficients for the dimensions of the original form are as follows: self-perception is .80, future perception is .75, structural style is .76, social competence is .82, family cohesion is .86 and social resources is .84 ([Friborg et al., 2005](#)). In the Turkish version, the internal consistency coefficient for the whole scale is .86, while the internal

consistency coefficient for the dimensions is between .66-.81. The test-retest reliability coefficient ranges between .68-.81 for the dimensions (Basım & Çetin, 2011).

The Revised Berkeley Parent Self-Efficacy Scale (BPSE-R), initially developed by Holloway et alin 2019 to determine parenting self-efficacy, was subsequently adapted into Turkish by Güler Yıldız et al. in 2021. This instrument is configured as a 6-point Likert-type scale and comprises a total of 18 items. The scale has 2 dimensions: parental strategies and child outcomes. Sample statements are "Avoiding overreaction when my child misbehaves" and "Expressing thoughts clearly". In the Turkish version, the internal consistency coefficient for the whole scale was .91, while the reliability coefficient for the sub-dimensions was .83 for the parental strategies sub-dimension and .88 for the child outcomes sub-dimension. The test-retest reliability coefficient was .67 for the whole scale (Güler Yıldız et al., 2021).

Process

The commencement of this study adhered to a meticulously orchestrated procedural sequence. Firstly, formal permissions were sought and granted for the utilization of the assessment scales instrumental to the research. Subsequently, the research protocol was subjected to the scrutiny and endorsement of the KTO Karatay University Faculty of Medicine Non-Pharmaceutical and Medical Device Studies Ethics Committee, which culminated in the issuance of the requisite ethical clearance. The data collection tools were administered to the participants consecutively in different orders to eliminate the order effect. In addition to the data collection tools, a personal information form and a consent form were also given. In the study, which was conducted in accordance with the principle of volunteerism, the scales were applied to the participants face-to-face and each application was completed in approximately 15 minutes.

Statistical Analysis

SPSS 25 and LISREL 8.7 programs were used to analyze the data. In the evaluation of the study data, frequency and percentage values were calculated to describe the demographic information of the participants. In the initial phase of this two-part study, a rigorous assessment of the data collection tools' validity and reliability was undertaken. To ascertain the appropriateness of this analytical process for the study's sample, a series of preliminary assessments were conducted. These assessments encompassed an evaluation of the normal distribution of the data, the identification of potential outliers, the detection of multicollinearity issues, and an examination of the homogeneity of variances. The findings of the preliminary analyses indicated that the dataset in question exhibited a favorable profile for subsequent statistical analysis. In this context, exploratory and confirmatory factor analyses were conducted to test the construct validity of both measurement tools. In addition, convergent validity and divergent validity were calculated. In the second step, correlation analysis and structural equation modeling were used to examine the connection between the variables. In the analyses of the study, .05 and .01 were set as significance level.

Results

Study-1

Within this section, a rigorous examination of the validity and reliability metrics for both the psychological resilience and parenting self-efficacy scales was conducted with regard to the study's designated sample.

Validity and Reliability Analysis Results of the Psychological Resilience Scale for Adults

Based on the outcomes of the exploratory factor analysis conducted on the dataset acquired from a cohort of 282 mothers, it was ascertained that the scale comprised a total of six discernible factors. While the common variance explained by the whole scale was 80.95, the variance values explained by the factors were 13.37% for self-perception, 9.75% for future perception, 10.73% for structural style, 15.11% for social competence, 15.42% for family cohesion and 16.55% for social resources. When the internal consistency coefficients were analyzed, the Cronbach- α value for the whole scale was .97, and the values for the factors were as follows: self-perception was .92, future perception was .94, structural style was .92, social competence was .95, family cohesion was .93 and social resources was .98. Confirmatory factor analysis was conducted to test the factor structure. The factor loadings of the structure confirmed by the CFA findings ranged between .74-.96. The fit index values of the model confirming the factor structure were ($\chi^2/df=2.80$, GFI=.93, AGFI=.91, NFI=.98, CFI=.98, SRMR=.04 and RMSEA=.08). In addition, the convergent validity of the scale was evaluated for self-perception (CR=.92 AVE=.66), future perception (CR=.94 AVE=.81), structural style (CR=.92 AVE=.73), social competence (CR=.94 AVE=.74), family cohesion (CR=.94 AVE=.71) and social resources (CR=.98 AVE=.87). Fornell Larcker Criterion was evaluated for discriminant validity. The deduced conclusion emanating from the analysis indicated that the square root of the mean variance value for each dimension surpassed the corresponding correlations associated with said dimension.

Validity and Reliability Analysis Results of the Revised Berkeley Parenting self-efficacy Scale (BPSE-R)

According to the outcomes derived from the exploratory factor analysis conducted on the dataset comprising responses from 282 mothers, the scale was found to be comprised of two distinct factors. While the common variance explained by the whole scale was 61.49%, the variance values explained by the factors were 25.71% for parental strategies and 35.77% for child outcomes, respectively. An examination of the internal consistency coefficients revealed that the Cronbach's α coefficient for the comprehensive scale attained a value of .94. Moreover, the Cronbach's α coefficients for the constituent factors were computed as .86 for parental strategies and .93 for child outcomes. Subsequently, a confirmatory factor analysis was conducted to test the factor structure. The factor loadings of the structure confirmed by the CFA findings ranged between .63-.85. The fit index values of the model confirming the factor structure were ($\chi^2/df=3.82$, GFI=.92, AGFI=.90, NFI=.98, CFI=.98, SRMR=.04 and RMSEA=.07). In addition, the convergent validity of the scale, parental strategies (CR=.87 AVE=.50) and child outcomes (CR=.94 AVE=.59) were evaluated. Fornell Larcker Criterion was evaluated for discriminant validity. The derived inference from the analysis indicated that the square root of the mean variance value for each dimension exhibited a magnitude surpassing the respective correlations linked to that particular dimension.

Study-2

Within this section, the primary hypothesis of the study, along with the subsidiary hypotheses formulated in accordance with the main hypothesis, underwent rigorous testing and evaluation.

Correlation Analysis Results for Data Collection Tools and Dimensions

A significant positive relationship was found between the psychological resilience of the participants (n=282) and their perceptions of parenting self-efficacy ($r=.576$; $p<.01$). It was determined that the highest correlation between parental strategies and psychological resilience dimensions was with social resources with a correlation coefficient of .485, and the highest correlation with the dimension of child outcomes was with future perception with a coefficient of .480 (Table 1).

Table 1

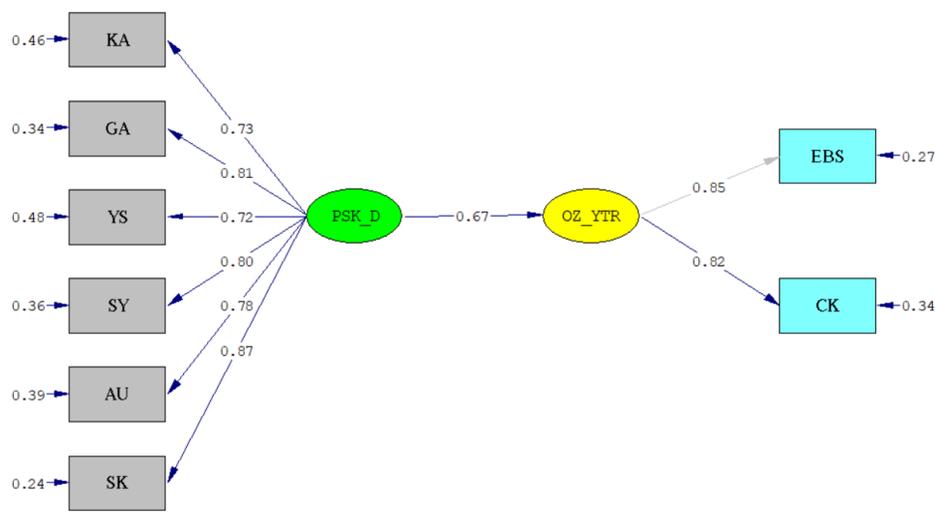
Correlation analysis results between variables

Variables	Self-perception	Future perception	Structural style	Social competence	Family cohesion	Social resources	Psychological resilience
Parental strategies	.428**	.461**	.424**	.461**	.453**	.485**	.547**
Child outcomes	.418**	.480**	.381**	.437**	.388**	.474**	.520**
Parenting self-efficacy	.457**	.511**	.432**	.484**	.449**	.519**	.576**

** $p<0.01$

Path Analysis Results of the Models Created for the Hypotheses

The model, as depicted in Figure 1, was conceptualized to serve as the central framework for the principal objective of this research. Below, the pertinent data integral to the testing and validation of this model are presented.



Chi-Square=35.80, df=19, P-value=0.00000, RMSEA=0.056

Figure 1. Path diagram for analyzing the main purpose of the study

The model elucidates the influence of psychological resilience on parenting self-efficacy. The evaluation of the model's fit, as indicated by the fit criteria, reveals an excellent fit: $\chi^2/df=1.88$, RMSEA=.056, CFI=.99, RMR=.023, SRMR=.021, GFI=.97, AGFI=.94, NFI=.99, and NNFI=.99 (Figure 1).

Table 2

Standardized parameter estimates and t values for the model

Hypotheses	Paths	Standardized parameter estimates (β)	t values	Result
H ₁ : Mothers' psychological resilience levels have a significant effect on their perceptions of parenting self-efficacy.	Psyc_res → Self_efficacy	0.67	10.09**	Accepted

**p<.01

When Table 2 is examined, it becomes evident that the main hypothesis developed within the scope of the study is accepted. It was concluded that the whole psychological resilience scale ($\beta=.67$, $t=10.09 > 2.58$; $p < .01$) positively affected parenting self-efficacy. The model (Figure 2) related to the hypotheses formed depending on the main purpose of the study and the data related to its testing are given below.

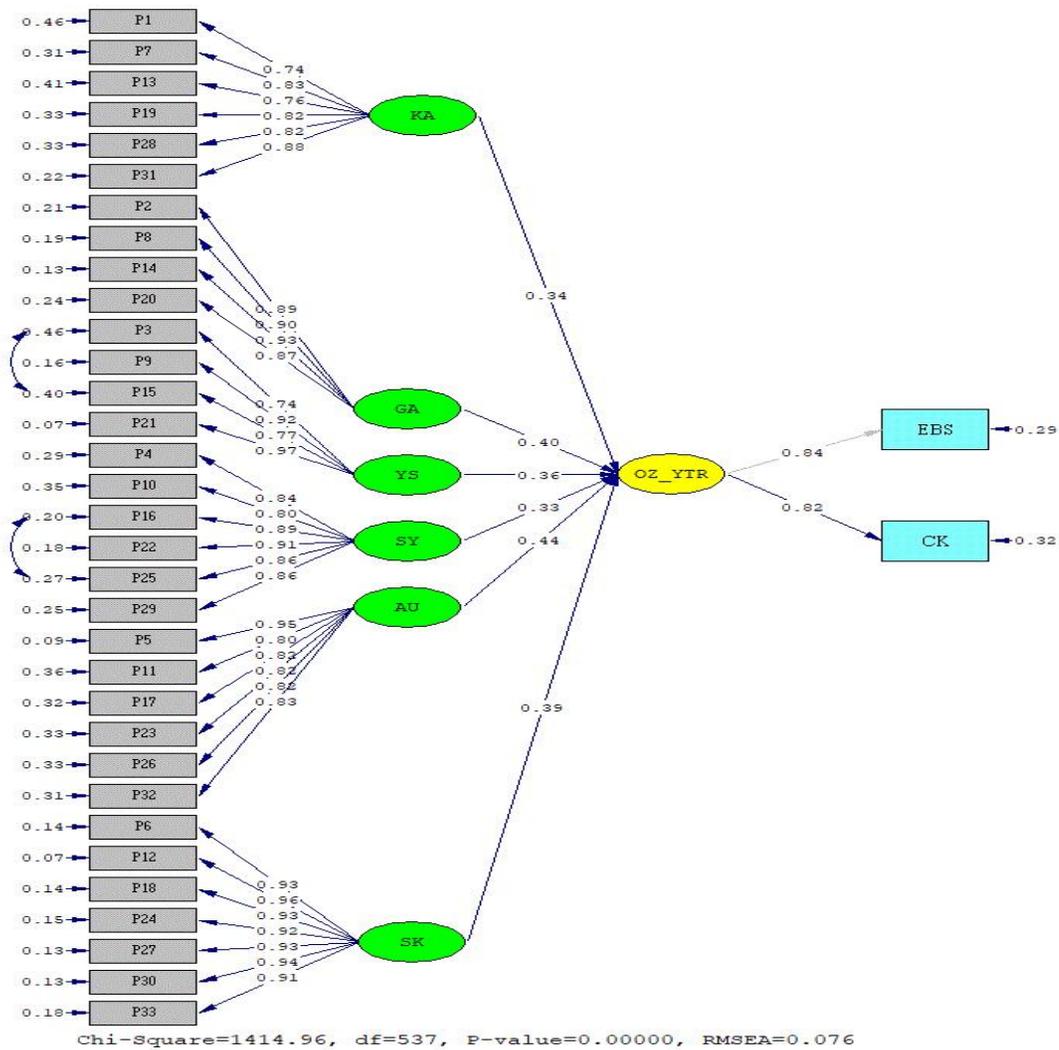


Figure 2. Path diagram for analyzing the main purpose of the study

The model elucidates the impacts of the various dimensions of psychological resilience on parenting self-efficacy. Upon rigorous assessment of the model's fit using established criteria, it was established that the model exhibited a notably strong fit: $\chi^2/df = 2.63$, RMSEA = .076, CFI = .98, RMR = .043, SRMR = .040, GFI = .94, AGFI = .92, NFI = .98, and NNFI = .98 (Figure 2).

Table 3

Standardized parameter estimates and *t* values for the model

Hypotheses	Paths	Standardized Parameter Estimates (β)	<i>t</i> values	Result
H _{1a} : Mothers' level of self-perception has a significant effect on their perceptions of parenting self-efficacy.	Self-perception → self_efficacy	0.34	5.22**	Accepted
H _{1b} : Mothers' level of future perception has a significant effect on their perceptions of parenting self-efficacy.	Future perception → self_efficacy	0.40	3.61**	Accepted
H _{1c} : Mothers' structural style levels have a significant effect on their perceptions of parenting self-efficacy.	Structural style → self_efficacy	0.36	2.76**	Accepted
H _{1d} : Mothers' structural style levels have a significant effect on their perceptions of parenting self-efficacy.	Social competence → self_efficacy	0.33	2.81**	Accepted
H _{1e} : Mothers' family cohesion levels have a significant effect on their perceptions of parenting self-efficacy.	Family cohesion → self_efficacy	0.44	4.09**	Accepted
H _{1f} : Mothers' level of social resources has a significant effect on their perceptions of parenting self-efficacy.	Social resources → self_efficacy	0.39	2.72**	Accepted

** $p < .01$

When Table 3 is examined, it becomes clear that the hypotheses developed within the scope of the study depending on the main hypothesis are accepted. To elaborate further, it is discerned that the dimensions of the psychological resilience scale, self-perception ($\beta=.34$, $t=5.22 > 2.58$; $p < .01$), future perception ($\beta=.40$, $t=3.61 > 2.58$; $p < .01$), structural style ($\beta=.36$, $t=2.76 > 2.58$; $p < .01$), social competence ($\beta=.33$, $t=2.81 > 2.58$; $p < .01$), family cohesion ($\beta=.44$, $t=4.09 > 2.58$; $p < .01$) and social resources ($\beta=.39$, $t=2.72 > 2.58$; $p < .01$), collectively exhibited a positive and statistically significant impact on parenting self-efficacy.

Discussion

This study was designed to describe the relationship between psychological resilience and parenting self-efficacy perception and the effects of predictor variables. When the results of the correlation analysis were analyzed, it was determined that the psychological resilience scale and its dimensions had a significant positive relationship with parenting self-efficacy perception. In this sense, it was indicated that the dimensions with the highest relationship with parenting self-efficacy perception were social resources and future perception. Furthermore, an additional observation elucidated that the dimension of psychological resilience denoted as "social resources" exhibited the most robust association with "parental strategies," a constituent dimension of parenting self-efficacy perception. It was also found that future perception, a dimension of psychological resilience, had a high relationship with child outcomes, a dimension of parenting self-efficacy perception. Path analyses conducted in the context of these relationships reveal that psychological resilience and its dimensions positively predict parenting self-efficacy.

When the related literature is examined, it is seen that the studies addressing psychological resilience with the family dimension are frequently conducted with individuals who have psychiatric disorders (Sari & Duman, 2022), multiple sclerosis (McKenna et al., 2022a), cancer (Ağaç & Üzar Özçetin, 2022), hemodialysis (Qiu et al., 2021), chronic neurological disorders (McKenna et al., 2022b), alcoholism (Haverfield & Theiss, 2016), autism spectrum disorder (Çiğdem, 2022) and primary caregivers of these individuals. The concept of parenting self-efficacy has predominantly been investigated within the context of mothers, who are generally seen as the primary caregivers of children. It becomes clear that the concept of psychological resilience is one of the topics frequently examined in studies conducted with nurses and nursing students, high school and university students, soldiers, heart and diabetes patients. Psychological resilience is considered as a frequently used element in evaluating the outcomes of challenging processes in individuals. Therefore, it is generally examined to what extent it affects positive qualities of individuals such as well-being, life satisfaction, understanding and compassion.

When the studies that are similar in terms of the scope and participants of the study were analyzed, it was posited that Kurt and Aslan (2020) examined the differentiation and relationship of dependent variables such as self-efficacy, psychological resilience and parental attitudes of mothers with preschool children (2-6 years old) according to the basic qualities of the individual. Supporting the results of our study, their study also showed that there was a relationship between psychological resilience and maternal self-efficacy. In addition, it was observed that maternal self-efficacy and parental attitudes differed significantly according to education and income level, and psychological resilience differed significantly according to education and income level and number of children (Kurt & Aslan, 2020). In another study, Çiğdem (2022) applied a psycho-education program to parents with children diagnosed with autism spectrum disorder and examined the effect of the program on parents' psychological resilience and parenting self-efficacy perception. The findings derived from this study offer compelling evidence to suggest that the implemented education program has yielded a positive impact on both psychological resilience and parenting self-efficacy. The results prove that mothers of children with special needs need support in coping with difficulties in life and developing basic competencies. When the results are evaluated in this respect, it is thought that the participants of our study also need psychological help due to their chronic illnesses. However, all events that catch us unprepared and disrupt our routine cause us to give emotional reactions such as sadness, anxiety and fear. Over time, these events become a stress factor in the mind of the individual, threatening his/her life. These processes, characterized by their enduring and far-reaching ramifications, engender discernible distinctions in the behavioral patterns exhibited by individuals. Considering that the participants of the study included individuals diagnosed with cancer, the necessity of a psycho-education program as in Çiğdem's (2022) study comes to the fore. Uçar (2021) comparatively evaluated the psychological resilience and parenting self-efficacy of parents with typically developing children and parents with children diagnosed with cerebral palsy. In his inquiry, Uçar (2021) observed that there existed no discernible disparity concerning parenting self-efficacy between the two groups under scrutiny. However, he arrived at a noteworthy determination with regard to psychological resilience, wherein he ascertained a substantial distinction. Specifically, Uçar reported that parents tasked with the care of children diagnosed with cerebral palsy exhibited lower levels of psychological resilience in comparison to their counterparts.

Another study similar to the findings of our research is [Durak \(2021\)](#), in which the mediating role of general self-efficacy in the relationship between psychological resilience and life satisfaction was examined. The outcomes of this investigation underscore a significant and positive association between students' psychological resilience and their general self-efficacy scores. Furthermore, the findings elucidate that psychological resilience exerts a constructive influence on general self-efficacy among the student population. As a matter of fact, [Toplu \(2017\)](#), in his study with high school students, states that there is a significant positive relationship between students' psychological resilience scores and self-efficacy scores. The study of [Bullough et al. \(2014\)](#) similarly supports the research findings. In another study on the subject, [Kılıç et al. \(2020\)](#) stated that general self-efficacy belief was a significant predictor of psychological resilience.

A holistic analysis of the study's findings reveals that the high psychological resilience exhibited by the participants in this research is indicative of a concomitant elevation in their parental self-efficacy. Consequently, it can be inferred that parents endowed with high levels of psychological resilience demonstrate a tenacity in retaining their faith in their parenting aptitude, even when confronted with adverse conditions that have the potential to exert a negative impact. It can be also stated that the social resources and social support that parents can access contribute both to their own development and indirectly to the development of their children. In addition, it is observed that parents' short and long-term goals about their lives contribute positively to their actions. In this manner, these individuals manifest more motivational behaviours in terms of what they can bring to themselves and their children.

Conclusion

When the results of our study are evaluated in the context of the relevant literature, similar findings are observed. It is known that the concept of psychological resilience, which is closely related to factors such as family ties, perceived social support, beliefs, culture and living conditions, is one of the most important psychosocial indicators in the prognosis of the disorders of the individual. Additionally, it constitutes a significant contributory element in the adaptive processes associated with managing various disorders. Furthermore, it plays a pivotal role in facilitating the regulation of individuals' emotional responses throughout the course of medical treatment, thereby enhancing their overall adaptation. In essence, it empowers individuals to comprehend the fluctuations resulting from their illness, mitigate potential risks, and demonstrate behaviors congruent with the prescribed treatment regimen. As emphasized in related studies, individuals with high psychological resilience are more motivated to overcome problems and show symptoms such as anxiety and fear less. Hence, there exists a supposition that the probability of receiving a diagnosis for a medical condition, an occurrence known to intensify individuals' stress levels, exerts an influence on their psychological resilience. The concept of psychological resilience also affects maternal skills, which are among the most important roles of women. Therefore, the context and results of the study are valuable both as a product of an interdisciplinary study and in terms of revealing the qualities of the sample in which the application was carried out.

Author contributions

All authors contributed to the study conception and design. Material preparation, data collection and analysis were performed by [Büşra ERGİN], [Esra ERGİN], [Nergis AKSOY SÖNMEZ], and [Mehmet Ali ERYILMAZ]. All authors read and approved the final manuscript.

Ethics approval

The study was approved by the KTO Karatay University Faculty of Medicine Non-Pharmaceutical and Medical Device Studies Ethics Committee (Project number: 2022/032). Informed consent was obtained from the participants before the study.

Conflict of interest

The authors declare that there are no conflicts of interest.

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