

Investigating the Factors Affecting Resiliency in Mothers of Children with and without Intellectual Disability*

Hatice BAYRAKLI^a

Kemal Yurtbilir Early Childhood Education
Center Preschool and Primary School for
Children with Hearing Impairment

Sema KANER

Ankara University

Abstract

In this study, the effect of quantity and quality of social support and problem-focused coping style on mothers' resilience was examined by conducting a structural equation modeling. The sample of the research consisted of 257 mothers of children with intellectual disability, and 234 mothers of typically-developing children. The data were gathered through the Mother Resiliency Scale, the Coping Style Scale, and the Revised Parental Social Support Scale. Path analysis with latent variables was conducted to investigate the relationship between the constructs after testing the measurement models. Both groups of mothers confirmed the model showing that quantity and quality of the social support affected the problem-focused coping in a positive and moderate way and affects the resiliency in a low but positive direction. Also, the problem-focused coping style influenced resiliency in a high and positive way.

Key Words

Intellectual Disability, Resiliency, Quantitative and Qualitative Social Support, Problem-Focused Coping Style, Path Analysis.

The birth of a child leads to many expectations for the parents (Kağıtçıbaşı, 1980). However, when the child is born with a disability, all the expectations fall down and it becomes difficult for the parents to cope with this new situation (Seligman & Darling, 1989). The parents of children with disabilities confront with many difficulties caused by the disability in addition to the stress all parents have. The main responsibility to raise a child belongs to the mother in many societies. Therefore, mothers' burden increases (Kaner, 2004), and in the case of

a child with disability, their caring burden becomes heavier (Kazak, 1987; Kazak & Marvin 1984).

While there are many studies claiming the mothers of children with disabilities face more difficulties and stress in comparison to the mothers of typically-developing children (Britner, Morog, Pianta, & Marvin, 2003; Hadadian, 1994; Seltzer, Hoyd, Greenberg, & Hong, 2004), there are also several studies showing that there are not significant differences between these two groups of mothers in terms of stress, anxiety, depression or burn out (Abbott & Meredith, 1986; Dyson, 1993; Skok, Harvey, & Reddihough, 2006; Van Riper, Ryff, & Priadham, 1992).

Parents of children with disabilities need to adapt and provide a balance between needs and resources (Kaner, 2009). Research findings demonstrate that despite all the adversities, the mothers of children with disabilities overcome the difficulties, maintain family functions successfully, and achieve a new balance; in other words they have resiliency (Patterson, 2002). Resiliency refers to an active process

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a **Hatice Bayraklı** is currently a preschool teacher at Kemal Yurtbilir Early Childhood Education Center Preschool and Primary School for Children with Hearing Impairment. Her research interests include parents of children with disabilities and inclusion in preschool settings. Correspondence: Hatice BAYRAKLI, Kemal Yurtbilir Early Childhood Education Center Preschool and Primary School for Children with Hearing Impairment, Örnek mah. Adalı Halil sok. No.14 Altındağ, Ankara. E-mail: hbayrakli@yahoo.com Phone: 0530 209 2483.

providing rebound from adversity more strengthened, leading to endurance and growth in response to crisis (Walsh, 2006). According to Masten (1994) resilience is successful adaptation in spite of the risks and adversities.

Definitions of resilience reveal two elements of resilience: the first is to exposure threat or adversity and the second is standing on and adapting in spite of the threat or adversity (Luthar, Cicchetti, & Becker, 2000). Protective factors are essential to decrease or remove negative effects of risk factors (Greene & Conrad, 2002). Studies about resilient mothers of children with disabilities demonstrate that coping strategies and social support are two of important protective factors (Bauman, 2004; Gardner & Harmon, 2002; Greeff, Vansteenwengen, & Ide, 2006; Heiman, 2002; Lee et al., 2004; Patterson, 1991).

Lazarus and Folkman (1984, p. 141) describe coping as "constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person". There are two styles of coping which are emotion-focused coping and problem-focused coping. Emotion-focused coping refers to appraisals that the stressful situations cannot be changed and manages the negative emotions caused by the stressful situation. In contrast to the emotion-focused coping, the problem-focused coping includes behavioral efforts to control and change stressful situation (Folkman & Lazarus, 1985; Lazarus & Folkman).

Problem-focused coping strategies are protective factors for resiliency. Resilient individuals are the ones who apply problem-focused coping strategies and response to the stressful situations in a more effective way (Dolbier & Steinhardt, 2008; Maddi & Khoshaba, 1994). Studies demonstrate that resilient parents of children with disabilities apply problem-focused strategies, actively search for the support they need, appreciate their personal growth, have positive appraisals and believe it is possible to control the life (Gardner & Harmon, 2002; Heiman, 2002; Li-Tsang, Yau, & Yuen, 2001; Mullins, 1987; Patterson, 1991).

In addition to the problem-focused coping strategies, resilient parents of children with disabilities also employ social support to meet their needs when their own resources are not enough (Kaner, 2001). Social support refers to the services provided by the individuals and/or the institutions to diminish the negative effects of stressful situation and promote adaptation (Kaner, 2010). In the case of a disability, formal and informal social support

provides a buffering effect on parents (Abbott & Meredith, 1986; Bauman, 2004; Britner et al., 2003; Heiman, 2002; Kaner, 2004; McCubbin et al., 1982) and source of power when the individual coping efforts are not sufficient (Schilling, Gilchrist, & Schinke, 1984).

Social support affects the cognitive appraisal of the adversity and is determinant on the coping strategies (Kaner & Bayrakli, 2009). Increase in the number of services enriches the coping strategies. While social support influences the coping, coping affects the outcome (Schwarzer & Knoll, 2007). Thus, social support and coping strategies increase the hardiness of the mothers and make them resilient (Greeff et al., 2006; Heiman, 2002; Lee et al., 2004; Patterson, 1991).

There are many studies about resilience in parents of children with disabilities in the literature (Bauman, 2004; Heiman, 2002; Li-Tsang et al., 2001; Muir, Tudball, & Robinson, 2008; Van Riper et al., 1992). These studies are about resilience of parents of children with autism (Bayat, 2007; Greeff et al., 2006; Muir et al., 2008), learning disability (Heiman), intellectual disability (Bauman; Heiman; Gardner & Harmon, 2002; Garwick et al., 1999; Muir et al., 2008; Van Riper et al., 1992), physical disability (Heiman; Garwick et al., 1999) or developmental disabilities (Li-Tsang et al., 2001). However, some of these studies had small samples (Bauman; Heiman; Greeff et al., 2006; Gardner & Harmon) and some applied only qualitative research methods (Bauman; Bayat; Li-Tsang et al., 2001). Moreover, a variety of scales was conducted to measure parental resilience. But, these were the scales developed for the variables (eg. social support, hardiness, coping, adjustment, family coherence) related to the resilience (Greeff et al., 2006; Trute, 1990). In addition, some studies obtained data from samples with certain income levels (Bayat; Heiman; Li-Tsang et al., 2001). Finally, parent reports were used to describe the resilience of the whole family (Bayat).

The history of resilience studies is very new in Turkey. Resilience studies in Turkey were mostly carried on the youth samples (Eminağaoğlu, 2006; Gizir, 2004; Gürkan, 2006; Kaya, 2007; Özcan, 2005; Sipahioğlu, 2008) except a research studied resilience among the earthquake survivors (Karairmak, 2007). Most of the these studies used adaptive scales to measure resilience (Dayioğlu, 2008; Eminağaoğlu; Gizir; Gürkan; Karairmak; Kaya; Özcan; Sipahioğlu; Yalım, 2007). Gürkan developed the first resilience scale of Turkey for a youth sample. The first resiliency study in the field

of special education in Turkey was carried out by Kaner and Bayraklı (2009). They also developed Mother Resilience Scale to examine the resilience of mothers. The current study is also the first to investigate the relationship between resiliency, social support and the coping strategies of the mothers of children with intellectual disabilities and typically-developing children in the framework of structural equation modeling. It is suggested that this study will lead to other studies in special education in Turkey and enrich the literature.

Purpose

The aim of the present study was to investigate the relationship between resiliency perceptions, perceived social support and coping strategies of the mothers of children with intellectual disability and typically-developing children in the framework of structural equation modeling. The hypotheses of the study were followed as: for mothers of children with intellectual disability and typically-developing children

- problem-focused coping strategies, perceived quantity (size of network), and quality (satisfaction from the social support) of social support influence the resiliency.
- perceived quantity of social support affects quality of social support.
- perceived quantity and quality of social support influences problem-focused coping strategies.

Method

Subjects

The subjects of the study consisted of 491 mothers. About 52% of the subjects ($n=257$) were the mothers of children with an intellectual disability, and about 48% ($n=234$) of them were the mothers of typically-developing children. The mean age of all mothers was 37.27 ($SD= 10.39$) ranging from 23 to 63. The mean ages of mothers of children with intellectual disability and typically-developing children were respectively 37.83 ($SD= 13.53$) and 36.68 ($SD= 5.20$). The age range, mean age, and standard deviation of the children with intellectual disability and typically-developing children were 4-26, 10.35 ($SD=3.42$), and 5-15, 10.00 ($SD= 2.47$) correspondingly.

Instruments

Mother Resilience Scale-MRS: MRS is a 5-point Likert type rating scale (defines me very well=5, never defines me=1) developed by Kaner and Bayraklı (2010) to examine mothers' perception of resilience. It has 34 items and eight subscales which are Optimism, Challenge, Self-Efficacy, Social Support, Motivation for an Aim/Achievement, Seeking Novelty, Predicting Risks, and Social Competence. Construct validity of the scale was assessed by confirmatory factor analysis. Goodness of fit indexes for MRS were $\chi^2/df=1024.18/464=2.21$; $RMSEA= 0.060$; $RMR= 0.058$; Standardize $RMR= 0.053$; $NNFI= 0.96$; $CFI= 0.97$; $GFI= 0.84$; $AGFI= 0.81$. Correlations between the scores of MRS and Parental Self-Efficacy Scale and Rosenbaum's Learned Resourcefulness Scale were 0.53 and 0.57 respectively. Divergent validity coefficient between MRS and Beck Depression Inventory was significantly negative (-0.38). Cronbach alpha coefficients were between 0.58-0.94.

Revised Parental Social Support Scale-RPSSS: It is developed by Kaner (2010) to investigate the perceived quantity and quality of social support. It has 24 items and three subscales which are Emotional Support, Care Support and Information Support. RPSSS measures both quantity and quality of the social support. The quantity dimension of the scale assesses the degree of social support parents receive (always=4, never=1). The quality dimension examines the degree of satisfaction taken from social support (very satisfied=4, not satisfied=1). High points mean parents receive high degrees of social support and are highly satisfied from the support.

Construct validity of the scale was assessed by a confirmatory factor analysis. Goodness of fit indexes for both quantity and quality dimensions of RPSSS were $\chi^2/df=359.56/186= 1.93$; $RMSEA= 0.062$, $RMR= 0.057$, $SRMR= 0.053$, $NNFI= 0.98$, $CFI= 0.98$, $GFI= 0.88$, $AGFI= 0.85$; and $\chi^2/df=423.05/185= 2.29$, $RMSEA= 0.076$, $RMR= 0.067$, $SRMR= 0.062$, $NNFI= 0.97$, $CFI= 0.97$, $GFI= 0.85$, $AGFI= 0.81$. Convergent validity coefficient between RPSSS and Multidimensional Perceived Social Support Scale was 0.77. Cronbach alpha coefficients for both dimensions were between 0.88-0.94.

Coping Style Scale- CSS: CSS is derived from the Ways of Coping Inventory-WCI (1985). WCI was developed by Folkman and Lazarus (1985) to examine the behavioral and cognitive strategies that people use under stressful conditions. In the current study, the 30-item WCI form obtained from

Şahin and Durak's (1995) study was administrated. CSS has five subscales under two dimensions: problem-focused coping style (self-confidence approach, optimistic approach, seeking social support) and emotion-focused coping style (helpless approach, face saving approach).

Cronbach alpha coefficients were between 0.45-0.80 (Şahin & Durak, 1995). The correlation between CSS and Multidimensional Perceived Social Support Scale was 0.19 (Esmek, 2007).

Data Analysis

The relationship between resiliency perceptions, perceived social support and coping strategies of the mothers of children with intellectual disability and typically-developing children were analyzed through a path analysis with latent variables which is one of the structural equation models. The structural equation modeling process includes two main steps: validating the measurement model and testing the fitness of the structural model. After testing and confirming the measurement models, it is possible to test the structural models (Jöreskog, 1993; Kline, 2005; Raykov & Marcoulides, 2006; Şimşek, 2007). Thus, in the current study, a confirmatory factor analysis was carried out to confirm the constructs used in the structural equation model before model testing for both groups of mothers. The data were analyzed using SPSS version 13.0 and LISREL 8.8.

Results

Measurement Models

Measurement models of resiliency, problem-focused coping, perceived quantity and quality of social support were tested in both groups of mothers. After administration of the confirmatory factor analysis (CFA) for measurement models, the structural models were tested to examine the relationship between resiliency, problem-focused coping, perceived quantity, and quality of social support.

Goodness of fit indexes for the quantity and quality of the social support, problem-focused coping and resiliency for mothers of children with intellectual disability were chi-square/df=2.06, RMSEA=0.06, SRMR=0.05, GFI=0.99, AGFI=0.96, NFI=0.99, NNFI=1.00, CFI=1.00; chi-square/df=2.16, RMSEA=0.07, SRMR=0.05, GFI=0.87, AGFI=0.84, NFI=0.89, NNFI=0.93, CFI=0.94; chi-square/df=2.2, RMSEA=0.07, SRMR=0.06, GFI=0.98, AGFI=0.97, NFI=0.97, NNFI=1.00, CFI=1.00;

chi-square/df=2.17, RMSEA=0.07, SRMR=0.06, GFI=0.80, AGFI=0.76, NFI=0.79, NNFI=0.87, CFI=0.88, respectively.

Goodness of fit indexes for the quantity and quality of the social support, problem-focused coping and resiliency for mothers of typically-developing children were chi-square/df=2.52, RMSEA=0.08, SRMR=0.06, GFI=0.98, AGFI=0.98, NFI=0.98, NNFI=1.00, CFI=1.00; chi-square/df=2.39, RMSEA=0.07, SRMR=0.05, GFI=0.99, AGFI=0.99, NFI=0.99, NNFI=1.00, CFI=1.00; chi-square/df=3.3, RMSEA=1.00, SRMR=0.08, GFI=0.96, AGFI=0.95, NFI=0.93, NNFI=0.96, CFI=0.96; chi-square/df=1.99, RMSEA=0.06, SRMR=0.05, GFI=0.79, AGFI=0.76, NFI=0.75, NNFI=0.84, CFI=0.85, respectively.

Most of goodness of fit indexes for both groups of mothers showed acceptable fit to the data (Hair, Anderson, Tatham, & Black, 1998). Therefore, measurement models of resiliency, problem-focused coping, quantity and quality of social support were confirmed in both groups of mothers.

Structural Models

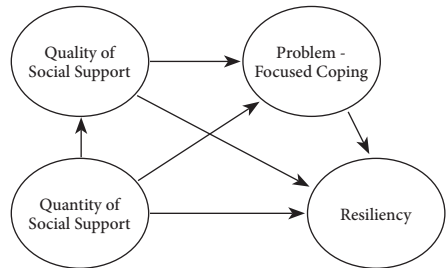


Figure 1.
Hypothesized Model

A hypothesized model (Figure 1) based on the related literature was specified and tested. Since the hypothesized model was not confirmed, an alternative model with two choices was tested. These models were named as Model A and Model B. Figure 2 and Figure 3 demonstrate the relationship between the variables. The bold values are β coefficients for the mothers of typically-developing children and the other values are for the mothers of children with intellectual disability.

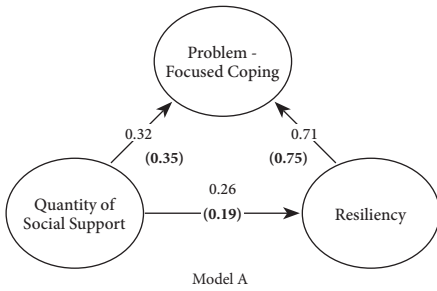


Figure 2.

Model A

Goodness of fit indexes for Model A (Figure 2) for mothers of children with intellectual disabilities and typically-developing children were $\chi^2_{(73)}=282.88$, $\chi^2/sd=3.9$, RMSEA=0.11, SRMR=0.06, GFI=0.99, AGFI=0.98, NFI=0.98, NNFI=0.99, CFI=1.00, and $\chi^2_{(73)}=186.56$, $\chi^2/sd=2.6$, RMSEA=0.08, SRMR=0.06, GFI=0.99, AGFI=0.98, NFI=0.98, NNFI=1.00, CFI=1.00 respectively. In both groups, goodness of fit indexes meets the criteria for the confirmation (Hair et al., 1998).

Model A reveals that the quantity of the social support has a positive effect on problem-focused coping ($\beta = 0.32$; $t = 3.64$; $p < 0.05$; $\beta = 0.35$; $t = 4.38$; $p < 0.05$) and resiliency ($\beta = 0.26$; $t = 4.07$; $p < 0.05$; $\beta = 0.19$; $t = 2.51$; $p < 0.05$). Problem-focused coping affects resiliency positively ($\beta = 0.71$; $t = 15.18$; $p < 0.05$; $\beta = 0.75$; $t = 13.82$; $p < 0.05$). The analysis generated a good fit between the model and data.

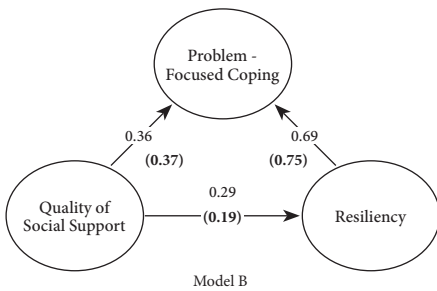


Figure 3.

Model B

Goodness of fit indexes for Model B (Figure 3) for the mothers of children with intellectual disabilities and typically-developing children were $\chi^2_{(73)}=282.98$, $\chi^2/sd=3.9$, RMSEA=0.11, RMR=0.06, GFI=0.99, AGFI=0.98, NFI=0.98, NNFI=1.00, CFI=1.00, and $\chi^2_{(74)}=190.59$, $\chi^2/sd=2.6$, RMSEA=0.08, RMR=0.06, GFI=0.99, AGFI=0.98, NFI=0.98, NNFI=1.00, CFI=1.00, respectively. In

both groups, goodness of fit indexes meets the criteria for the confirmation (Hair et al., 1998).

Model B shows that the quality of the social support has a positive effect on problem-focused coping ($\beta=0.36$; $t=4.70$; $p<0.05$; $\beta=0.37$; $t=4.73$; $p<0.05$) and resiliency ($\beta=0.29$; $t=4.62$; $p<0.05$; $\beta=0.19$; $t=2.41$; $p<0.05$). Problem-focused coping influences resiliency positively ($\beta = 0.69$; $t = 17.28$; $p < 0.05$; $\beta = 0.75$; $t = 15.41$; $p < 0.05$). The analysis generated a good fit between the model and data.

Discussion

In this study, the relationship between the quantity and quality of the social support, problem-focused coping and resiliency were examined in the mothers of children with intellectual disability and mothers of typically-developing children through a path analysis with latent variables.

The first finding of the study was mothers' perceived quantity and quality of the social support influenced their problem-focused coping strategies in a positive and moderate way. Consistent with the literature, increase in the amount of social support makes it easier to find necessary resources meeting mothers' needs and enriches their coping skills (Schwarzer & Knoll, 2007; Twoy, Connolly, & Novak, 2007). Satisfaction taken from the social support influences the negative perceptions related to the adversities. The belief about the efficacy of the social support diversifies the ways of coping, provides resistance to stress, helps to stand on, and leads to adaptive coping (Blankfeld & Holahan, 1999; Boehmer, Luszczynska, & Schwarzer, 2007; Delongis & Holtzman, 2005).

The second finding was the quantity and quality of the social support affected the resiliency in a low but positive way in both groups of mothers. This finding is also consistent with other studies claiming that when satisfaction taken from the support increases, mothers become more resilient (Abbott & Meredith, 1986; Bauman, 2004; Dunst & Trivette, 1986; Greeff et al., 2006; Heiman, 2002; Kaner & Bayrakli, 2009; Vandervoort, 1999).

The last finding was problem-focused coping strategies influenced resiliency in a significant and positive way in both groups. The effect of problem-focused coping on resiliency is higher than quantity and quality of the social support. Problem-focused coping strategies include positive appraisals related to adversity and behavioral efforts to change and manage the problems (Folkman & Lazarus, 1985;

Lazarus & Folkman, 1984). The efforts toward changing or controlling stressful situations make mothers stress-resistant and more resilient (Garwick, Kohrman, Titus, Wolman, & Blum, 1999; Greeff et al., 2006; Kaner & Bayraklı, 2009; Kenny, 2000; Margalit, Raviv, & Ankonina, 1992). Mothers who have self-efficacy in terms of problem solving also have an optimistic point of view and seek for social support (Al-Yagon, 2007; Garwick et al., 1999; Heiman, 2002; Muir et al., 2008; Seltzer et al., 2004). Problem-focused coping is the most significant variable contributing to resilience in mothers whether they have a child with disability or not. Effective coping strategies protect individuals and make them more resilient.

In conclusion, resiliency, social support and problem-focused coping are closely related to each other and social support and problem-focused coping are important protective factors for mothers' resilience. Having a child with a disability is a source of stress, but with protective effects of social support and problem-focused coping, successful adaptation can be achieved. At this point, it is meaningful that the crisis, one of the concepts related to resiliency, means both threat and opportunity (Echterling, Presburg, & McKee, 2005). The findings of the present study demonstrated that both groups of mothers could have similar experiences and there were similarities more than differences in family dynamics (Bower, Chant, & Chantwin, 1998; Britner et al., 2003; Dyson, 1993; Skok et al., 2006; Van Riper et al., 1992). Therefore, it is important to focus on strengths and capabilities rather than weaknesses or problems.

Some cautions can be taken into account when promoting parental resilience. Parents can be supported for using problem-focused coping strategies, seeking for social support, and benefiting from the support in an effective way. Based on the characteristics of the resilient parents, strengths of parents should be improved rather than the weaknesses. Professionals working with families can make the family maintain its functions by diminishing risk factors and improving strengths.

This study has some limitations. The data were gathered through self-reported scales, disability was limited to the intellectual disability, just two variables' (social support and problem-focused coping) relationship with resiliency were tested, the subjects were only composed of mothers and age range of the children was between 4 and 26. Further studies can be carried out by means of interview and observation techniques in addition to

self-reported scales, resilience in fathers can be examined, the confirmed model can be tested in more homogeneous groups, the relationship of resiliency with other variables (e.g. self-efficacy, learned resourcefulness, etc.) can be investigated.

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