

# POSTTRAUMATIC GROWTH IN MOTHERS OF CHILDREN WITH DISABILITIES

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**Abstract:** *The psychosocial situation of mothers of children with disabilities is most often analysed in the context of difficulties and support capabilities. Less frequently, it is analysed from the perspective of their personal resources. Posttraumatic growth (PTG) is a phenomenon that points to the constructive, positive consequences of traumatic events or radical life changes that require adaptation. Introducing a child with a disability into a family, and the ongoing stress of raising a child with a disability, can be particularly difficult situations that can promote PTG. The aim of this study was to determine the relationship between coping and self-efficacy and PTG in mothers of children with disabilities. The study included 96 mothers of children with autism and mothers of children with profound intellectual disabilities. The study was conducted using The Post-traumatic Growth Inventory, The Coping Orientations to Problem Experienced (COPE), and the General Self-Efficacy Scale. Regression analyses showed the predictive role of coping strategies (such as religion and focus on the problem) and self-efficacy in accounting for PTG variability in mothers of children with disabilities.*

**Keywords:** *mothers of children with disabilities, posttraumatic growth, coping, self-efficacy*

## INTRODUCTION

Psychosocial functioning of mothers of children with disabilities has been investigated by researchers over the past few decades. Examined issues included specific adaptive responses in mothers giving birth to and raising/rearing children with disabilities, as well as the question of how and how well they fulfill different social roles. Mothers of children with disabilities were found to cope with numerous stressors during the adaptation process, which may be long-lasting, variable and of various intensity. These stressors are related to child's developmental problems, specific child rearing style/method, as well as requirements determined by treatment and rehabilitation procedures. The stressors are complex and permanent challenges that mothers need to face (Dąbrowska and Pisula, 2010). Research has found considerable stress levels in such mothers (Abbeduto et al., 2004; Duarte et al., 2005; Burke and Hodapp, 2014), higher than in mothers raising non-disabled children (Shyam and Govil, 2014). Other negative outcomes of rearing a child with a disability have been found

as well, including coping and adaptation problems (Hastings et al., 2005), lower quality of life (Fairthorne et al., 2014), heavy burden (Mackey and Goddard, 2006), and a variety of psychological symptoms such as anxiety and depression (Davis and Carter, 2008; Quasir et al., 2015).

Most previous empirical studies conducted among mothers of children with disabilities have focused on negative aspects of their functioning. While this literature has extensively measured and explained that raising a child with a disability may lead to significant psychological distress, mental health problems and poorer well-being, an increasing body of empirical evidence has shown that parents, and in particular mothers of children with disabilities, have reported on their positive experiences. This evidence is based on confirming positive contribution of child's disability to everyday life and well-being of mothers, and also to transformations of their beliefs about the world, self and the future (Scorgie et al., 2004; Bayat, 2007; Kayfitz et al., 2010). Identified positive changes emerging as a result of raising children with disabilities

complete the previously developed characteristics of mother experiences, focused mainly on negative aspects (King et al., 2006).

Different terms have been used in the literature to refer to positive outcomes of being a mother of a child with disability. The most frequently used include: posttraumatic growth (PTG) (Konrad, 2006; Phelps et al., 2009; Hungerbuehler et al., 2011; Zhang et al., 2013; Motaghedi and Haddadian, 2014; Zhang et al., 2015; Counselman-Carpenter, 2016), stress-related growth (King and Patterson, 2000; Rubin and Schreiber-Divon, 2014), personal growth (King et al., 2006; Strecker et al., 2014), benefits or benefit-finding (McConnell et al., 2015), the positive impact of having a disabled child or positive impact(s) (Stainton and Besser, 1998; Blacher and Baker, 2007), positive perceptions (Hastings and Taunt, 2002; Hastings et al., 2002; Gupta and Singhal, 2004; Hastings et al., 2005a; Greer et al., 2006; Vilaseca et al., 2013), positive contributions (Hastings et al., 2005), transformations (Scorgie et al., 2004; Pelchat et al., 2009), positive aspects (Kenny and McGilloway, 2007), and positive experiences (Kimura and Yamazaki, 2013).

Research using the abovementioned constructs has provided interesting results confirming that mothers of children with disabilities have various, positive experiences. They have pointed to mothers' ability to positively transform negative experiences, sadness, suffering, adversities and excessive burdens resulting from rearing children with disabilities. They have proved that suffering a loss manifested in the awareness that the child will not develop properly may lead to formation of new beliefs, objectives and discovery of previously unknown or underestimated abilities (Tedeschi et al., 1998). Phelps et al. (2009) pointed to enrichment that is closely linked to positive self-perception, emotional well-being, setting goals, as well as the spiritual and religious life of mothers of children with autism. Beighton and Wills (2016) identified the following positive aspects of being a parent of a child with intellectual disability: an increased sense of personal strength and confidence, changed priorities, greater appreciation of life, pleasure in the child's accomplishments, increased faith/spirituality, more

meaningful relationships and the positive effects that the child has on the wider community. As showed in the research by Hastings et al. (2002), mothers perceive their child with intellectual disability as a source of happiness/fulfillment, personal growth and maturity, and strength and family closeness. Ekas and Whitman (2011) reported that some mothers consider giving care to their autistic children as a growing experience in learning humility, patience, compassion, and respect for others. Therefore, based on previous research findings, it may be concluded that raising a child with a disability is not only a source of negative experiences, but it holds a specific potential for the process of transformation (of beliefs, values and behaviours) in parents in general and mothers in particular (Scorgie et al., 2004; King et al., 2006; Pelchat et al., 2009).

Data in the literature have shown PTG to be the most consistent and theoretically grounded conceptualisation of positive change occurring in mothers of children with disabilities. This phenomenon has been extensively discussed in the literature with regard to different types of traumatic events (e.g. life-threatening disease, accident, fire, natural disaster, violence, loss of a loved one, acquisition of a permanent disability (cf. T. Zoellner, A. Maercker, 2006). It has also been explored among mothers of children with disabilities.

According to Tedeschi and Calhoun's model (2004), PTG is the subjective experience of positive psychological change that occurs as a result of effective coping with outcomes of a traumatic event. This positive change may occur in the perception of the self, relations with others, personal strength, perceiving new possibilities, appreciation of life and spiritual change. A catalyst for such change is a traumatic event that destroys an individual's previous life circumstances and their fundamental beliefs about the world. Calhoun and Tedeschi (2006) stress that the process of PTG is not universal; it occurs in some individuals who in the aftermath of trauma were able to achieve considerable transformation of their beliefs.

Studies have found PTG to occur among mothers of children with disabilities (e.g. Konrad, 2006; Phelps et al., 2009; Zhang et al., 2013; Motaghedi and Haddadian, 2014; Zhang et al., 2015;

Counselman-Carpenter, 2016). Researchers have identified positive change in the aftermath of trauma in mothers of children with different types of disabilities. In her qualitative study, Konrad (2006) pointed to four elements of PTG in mothers of children with acquired disabilities (such as paraplegia, visual and auditory impairment, mild to severe motor impairment, limb amputation, and visible scarring, as well as cases of children who had sustained multiple physical disabilities). These elements included: a) transformations in self: found strength; b) transformations in relationships: compassion and membership; c) transformations in meaning-making; and d) transformations in faith and spirituality. In Konrad's study, all mothers reported on their transformation of identity, discovery of an inner strength, and transformation of their previous beliefs about their abilities and possibilities. Acquisition of a disability by a child was regarded as a distressing, traumatic event that constituted a source of suffering but at the same time a foundation for building and strengthening their sense of effectiveness in struggling with everyday problems or finding meaning in encountered adversities. Positive change in the aftermath of a traumatic event was also found to occur in a study by Counselman-Carpenter (2016) among mothers whose children were born unexpectedly with Down syndrome. It was referred to as: development of formal/informal advocacy roles (including personal growth in the two domains of new possibilities and relating to others), improved mothering skills, personal strength, appreciation of life, and spiritual change.

Research on PTG among mothers of children with developmental disabilities revealed the largest positive change with regard to appreciation of life, relations with others and personal strength, as well as minor change with regard to spirituality (Strecker et al, 2014). In their phenomenological study, Zhang et al. (2015) found positive change in the aftermath of a traumatic event in mothers of children with autism. PTG was manifested in the following: a new philosophy of life, appreciation of life, personal strength, relating to others, and spiritual change, in accordance with PTG aspects set out by Tedeschi and Calhoun's theory. PTG was also confirmed to occur in mothers of children with autism in a qualitative study by Motaghedi and

Haddadian (2014). They found the largest positive changes in the aftermath of a traumatic event to be in the spiritual aspect and in increased personal strength. Minor PTG was found in the mothers with regard to finding new possibilities.

When trying to account for the phenomenon of PTG in mothers of children with disabilities, the researchers analysed its interactions with various factors. They found positive interactions of PTG with enrichment (Phelps et al., 2009), positive coping (Zhang et al., 2013), meaning-focused coping (Beighton and Wills, 2016), mental health indicators (Motaghedi and Haddadian, 2014), positive reframing and using social support as a coping strategy (Greer et al., 2006). Moreover, PTG occurrence was found to be significantly determined by perceived support, peer example, effective coping style and enhancement of self-efficacy (Zhang et al., 2015). Negative interactions, on the other hand, were found between PTG and child's disability level as well as other factors (Rubin and Schreiber-Divon, 2014). Coexistence of PTG with enhanced distress was reported by Strecker et al. (2014), which indicates that experiences of mothers of children with disabilities are very complex.

Although studies have shown that mothers of children with disabilities experience PTG, they still have not provided an in-depth explanation of this phenomenon, for a number of reasons. Firstly, the number of studies has been scarce; secondly, factors related to occurrence of PTG in mothers of children with disabilities have not been sufficiently investigated. In addition, such research has never been conducted in a Polish population, which justifies the need to bridge this gap.

## OBJECTIVE

The aim of this study was to investigate the relationship between PTG and coping strategies, as well as self-efficacy, among mothers of children with profound intellectual disability and mothers of children with autism spectrum disorders. In line with Tedeschi and Calhoun's model (2004), coping is a highly important determinant of outcomes in the aftermath of stressful life events. Most commonly, coping is defined as cognitive and behavioural efforts to manage internal and

external demands of stressful events (Lazarus and Folkman, 1986). The presence and raising of a child with a disability as a potential stressor forces mothers to exercise specific coping strategies. The existing research has shown that coping of mothers of children with disabilities is interrelated with positive indicators of psychosocial adaptation (e.g. Glidden and Natcher, 2009; Benson, 2010), as well as positive perception (Greer et al., 2006) and some aspects of PTG (Zhang et al., 2013). On these grounds, it may be inferred that coping strategies are of considerable importance for PTG in mothers of children with profound intellectual disability and in mothers of children with autism spectrum disorders.

Besides coping, the study investigates general self-efficacy. Perceived self-efficacy is the belief that one's competences enable effective coping with difficult situations (Luszczynska et al., 2005). Based on previous findings of research focused on maternal self-efficacy (e.g. Kuhn and Carter, 2006; Weiss et al., 2013), significant interaction is expected between self-efficacy and PTG in mothers of children with autism spectrum disorders and in mothers of children with profound intellectual disability.

## HYPOTHESES

The study shall explore the following hypotheses: 1) Coping strategies are predictors of PTG in mothers of children with profound intellectual disability and in mothers of children with autism spectrum disorder; and 2) Self-efficacy is a positive predictor of PTG in mothers of children with profound intellectual disability and in mothers of children with autism spectrum disorders.

## METHOD

Data were collected using several research tools.

The Polish version of *The Post-Traumatic Growth Inventory (PTGI - RG Tedeschi and LG Calhoun)*. Confirmatory factor analysis performed by Ogińska-Bulik and Juczyński provided grounds for selecting a four-factor structure: 1) changes in self-perception (CHSP) (Cronbach's  $\alpha = 0.87$ ); 2) changes in relations to others (CHRO)

(Cronbach's  $\alpha = 0.85$ ); 3) appreciation of life (AL) (Cronbach's  $\alpha = 0.73$ ); and 4) spiritual change (SCH) (Cronbach's  $\alpha = 0.63$ ). Preparation of the Polish version of the tool involved translation and re-translation of the items. The Polish version of the PTGI provided satisfactory indicators of reliability and validity (Ogińska-Bulik and Juczyński, 2010). It is a 21-item scale including CHSP (9 items), CHRO (7 items), AL (3 items) and SCH (2 items). PTGI items were rated using a 0-5 scale (from 'I did not experience this as a result of my crisis', to 'I experienced this change to a large extent as a result of my crisis').

The Polish version of *The Coping Orientations to Problems Experienced (COPE)*, developed by Wrześniewski. This is a 60-item scale determining frequency of applying the following coping strategies: focus on the problem, denial, focus on/venting of emotions, seeking emotional support, acceptance, religion, humour, alcohol/drug use ideation. The Polish version of the inventory provides satisfactory psychometric indicators; reliability coefficients (Cronbach's  $\alpha$ ) of individual subscales range from 0.62 to 0.93. Stability coefficients are also satisfactory, ranging from 0.60 to 0.80 for different scales (Wrześniewski, 1996).

The Polish version of the *General Self-Efficacy Scale (GSES; R. Schwarzer and M. Jerusalem)* developed by Juczyński. Responses to 10 items range from "I strongly disagree" (1) to "I strongly agree" (4). This allows determination of an individual's general belief about how efficiently he or she copes with difficult situations. The Polish version of the GSES provided satisfactory indicators of reliability and validity (Cronbach's  $\alpha = 0.85$ , and Pearson's stability coefficient  $r = 0.78$ ) (Juczyński, 2001).

The data included in this study come from a larger scientific project focused on mothers of children with disabilities who are engaged in the activity of foundations, associations, educational and care centres. The project focused on positive life aspects in the aftermath of ground-breaking changes in life due to raising a child with a disability. Enrolled individuals were mothers raising children with intellectual disabilities and mothers of children with autism spectrum disorders. Participation in the study was voluntary. Questionnaires were administered by trained teachers or psychologists



working in the above mentioned institutions. The sample was composed of 96 mothers. Encoded data were stored in accordance with valid personal data protection regulations.

Participant characteristics are presented in Table 1.

**Table 1.** Participant characteristics

Characteristic	n (%)
Place of residence	
City	64 (66.67)
Rural area	32 (33.33)
Marital status	
Married	71 (73.96)
Single	9 (9.38)
Divorced	12 (12.5)
Separated	4 (4.17)
Education	
Vocational	16 (16.67)
Secondary	47 (48.95)
Higher - incomplete	9 (9.38)
Higher - complete	24 (25.00)
Employment	
Yes	38 (39.58)
No	58 (60.42)
Age, mean (SD)	35.37 (5.22)
Disability of child	
Profound intellectual disability	55 (57.29)
Autism spectrum disorder	41 (42.71)
Age of child, mean (SD)	10.35 (2.80)

Data were analysed in the Statistica 7.0 suite according to specific stages given as follows. Firstly, descriptive statistics for PTG, coping

strategies and general self-efficacy variables were calculated. This stage was followed by correlation analysis for the variables (Pearson's correlation coefficient). Finally, stepwise regression analysis was performed for the variables regarded as independent, i.e. coping strategies and self-efficacy in accounting for the dependent variable of PTG.

## RESULTS AND DISCUSSION

### Incidence of PTG, coping strategies and self-efficacy

Table 2 presents descriptive statistics for PTG (general results and specific aspects), coping strategies and self-efficacy. To compare levels of individual aspects of PTG and coping strategies across participants, the total score obtained by each participant was divided by the number of items. With regard to PTG aspects, the highest mean result was reported for AL; the lowest, for SCH. Coping strategies most often exercised by the mothers were: acceptance, focus on the problem, seeking emotional support, and religion.

### Relationships between coping strategies, general self-efficacy and PTG

Obtained correlation coefficients point to positive albeit minor interactions of PTG with coping strategies and general self-efficacy in mothers from the sample (Table 3).

**Table 2.** Descriptive statistics regarding variables

Measure	M (SD)	Score range (min-max)	Scale range (min-max)	Subscale M (SD)	
PTGI	Total PTG (T)	64.28 (21.47)	21-105	0-105	
	Changes in self-perception (CHSP)	26.12 (10.78)	8-45	0-45	2.90 (1.20)
	Changes in relations to others (CHRO)	22.11 (6.92)	7-35	0-35	3.16 (0.99)
	Appreciation of life (AL)	10.27 (3.31)	0-15	0-15	3.42 (1.10)
	Spiritual changes (SCH)	5.77 (3.32)	0-10	0-10	2.87 (1.66)
COPE	Focus on the problem (PROB)	35.33 (5.70)	18-45	15-52	2.72 (0.44)
	Denial (D)	9.23 (2.14)	4-14	4-16	2.30 (0.53)
	Focus on/venting of emotions (EM)	10.60 (2.53)	7-16	4-16	2.65 (0.63)
	Seeking emotional support (SUP)	10.85 (2.12)	6-16	4-16	2.71 (0.53)
	Acceptance (A)	14.93 (2.21)	10-20	4-20	2.98 (0.44)
	Religion (REL)	10.79 (3.91)	4-16	4-16	2.70 (0.98)
	Humour (HUM)	8.55 (2.56)	4-14	4-16	2.14 (0.64)
	Alcohol/drug use ideation (ALK)	6.54 (3.40)	4-16	4-16	1.63 (0.85)
GSE	General self-efficacy (GSE)	24.93 (7.44)	10-40	10-40	

**Table 3.** Correlation matrix for different outcome measures

Variable	Coping								GSE
	PRO	D	EM	SUP	A	REL	HUM	ALK	
Total PTG	0.21*	0.17	0.08	0.12	0.13	0.26**	-0.03	0.03	0.25*
CHSP	0.17	0.15	0.11	0.05	0.16	0.14	-0.07	-0.04	0.28**
CHRO	0.16	0.23*	0.12	0.11	0.18	0.30**	-0.21*	0.14	0.24*
AL	0.25*	0.11	-0.01	0.12	0.26**	0.38***	0.09	0.01	0.12
SCH	0.22*	0.03	-0.06	0.23*	0.31**	0.26**	-0.05	0.05	0.10

PTG, posttraumatic growth; CHSP, changes in self-perception; CHRO, changes in relations to others; AL, appreciation of life; SCH, spiritual changes; PRO, focus on the problem; D, denial; EM, focus on emotions; SUP, seeking emotional support; A, acceptance; REL, religion; HUM, humour; ALK, alcohol/drug use ideation; GSE, general self-efficacy  
 \*p<0.05; \*\* p<0.01; \*\*\*p<0.001

**Table 4.** Results of stepwise regression analysis of Total PTG

Predictor	B	SEB	B	SEβ	t	P
REL	1.81	0.64	0.42	0.11	2.83	0.006*
GES	0.85	0.27	0.30	0.009	3.18	0.002**
PROB	2.29	0.88	0.27	0.10	2.59	0.011*

REL, religion; GSE, general self-efficacy; PRO, focus on the problem  
 R=0.47; R<sup>2</sup>=0.22; Adjusted R<sup>2</sup>= 0.19; F(4.91)=6.60; p<0.001  
 \*p<0.05; \*\*p<0.01

The stepwise regression analysis revealed the predictive role of coping strategies and general self-efficacy in accounting for the variance in total PTG in mothers from the sample (Table 4). This prediction was slightly different for different aspects of PTG (Table 5).

The created regression model encompasses the two coping strategies of religion and focus on the problem, which account for 22% of the variance in total PTG, just as general self-efficacy does. More frequent coping through religion and focus on the problem by mothers from the sample, and their higher level of general self-efficacy, result in higher PTG.

Results of the regression analysis conducted for specific aspects of PTG are as follows. As regards changes in self-perception (CHSP), general self-efficacy and the two coping strategies: focus on the problem and religion, were found to play a predictive role. The combination of these independent variables accounts for 16% of the variance in CHSP. Higher predictive role of the considered independent variables was found for positive change in the aftermath of the traumatic event, in the form of changes in relations to others (CHRO). Coping strategies, such as religion, focus on emotions,

humour and focus on the problem, as well as general self-efficacy, account for 36% of the variance in CHRO, with religion making the greatest contribution. A particularly predictive role of coping using humour should be stressed. It was found that less frequent application of this strategy by mothers from the sample involves higher positive change in relations to others in the aftermath of a traumatic event; this was not observed for other coping strategies included in this model. The two coping strategies of religion and focus on emotions account for 22% of the variance in appreciation of life, with religion exerting a greater predictive role. The created regression model involving the two coping strategies of religion and acceptance predicts only 15% of the variance in spiritual changes (SCH).

The obtained results regarding PTG in mothers of children with disabilities and its correlates in the form of coping and self-efficacy converge, although only partially, with previous research findings. The enhanced PTG reported in mothers from the sample, primarily manifested in appreciation of life and positive change in relations to others, is consistent with findings of other researchers (e.g. Strecker et al., 2014). This enhanced PTG reflects greater attention paid by the mothers to specific elements of everyday life, change in priorities and things

**Table 5.** Results of stepwise regression analysis of Changes in self-perception (CHSP), Changes in relations to others (CHRO), Appreciation of life (AL) and Spiritual changes (SCH)

Predictors	B	SEB	B	SE $\beta$	T	p
<b>Changes in self-perception (CHSP)</b> R=0.47; R <sup>2</sup> =0.16; Adjusted R <sup>2</sup> = 0.13; F(4.91)=4.48; p<0.002						
GSE	0.44	0.14	0.30	0.10	3.15	0.002**
PRO	0.99	0.46	0.23	0.11	2.14	0.034*
REL	0.51	0.33	0.18	0.12	1.25	0.041*
<b>Changes in relations to others (CHRO)</b> R=0.60; R <sup>2</sup> =0.36; Adjusted R <sup>2</sup> = 0.36; F(8.87)=6.24; p<0.001						
REL	1.14	0.24	0.64	0.13	4.81	<0.001
GSE	0.26	0.08	0.28	0.09	3.14	0.002**
EM	0.84	0.30	0.31	0.10	2.85	0.005*
HUM	-1.29	0.38	-0.48	0.14	-3.48	<0.001
PROB	0.97	0.41	0.30	0.13	2.38	0.019*
<b>Appreciation of life (AL)</b> R=0.47; R <sup>2</sup> =0.22; Adjusted R <sup>2</sup> = 0.18; F(4.91)=6.31; p<0.001						
REL	0.36	0.10	0.43	0.12	3.72	<0.001
EM	0.28	0.14	0.21	0.10	2.04	0.044*
<b>Spiritual changes (SCH)</b> R=0.39; R <sup>2</sup> =0.15; Adjusted R <sup>2</sup> = 0.13; F(3.92)=5.58; p<0.001						
REL	0.44	0.15	0.29	0.10	2.96	0.004**
AKC	0.31	0.15	0.20	0.10	2.01	0.046*

REL, religion; GSE, general self-efficacy; PRO, focus on the problem; EM, focus on emotions; HUM, humour; A, acceptance  
\*p<0.05; \*\*p<0.01

important in life, which at the same time involves new types of activities, interests, and the taking up of new roles (cf. Counselman-Carpenter, 2016). In the presented research, the smallest change was reported for spirituality, which is consistent with results obtained by Zhang and associates (2015), who measured minor growth in spirituality among mothers of children with autism. These results are, however, contrary to empirical findings pointing to considerable positive spiritual change in this group of mothers (e.g. Motaghedi and Haddadian, 2014). The observed ambiguity of previous findings needs to be further investigated. This is highly interesting, as religious beliefs and activities, as well as spirituality, are regarded as significant coping resources used by mothers of children with disabilities (Ekas et al., 2009). It may, therefore, be inferred that understanding of the level of positive spiritual change requires consideration of a broader context for interpretation, situated in spirituality itself, in beliefs and in religious commitment.

The frequency of applying specific coping strategies by mothers of children with disabilities found in this study points to mothers' tendency to accept

the encountered difficulties, solve problems or seek support in others and in religion. These results are consistent with findings of other researchers, indicating the prevalence of task-focused and meaning-making coping in mothers of children with disabilities, sometimes with the support of close relations and other parents in a similar situation, and in relation to religious commitment (cf. Hastings et al., 2005; Smith et al., 2008; Ekas et al., 2009; Beighton and Wills, 2016).

Based on the obtained results, it may be found that the assumed aim of the study was achieved. The relationship between coping strategy and general self-efficacy vs. PTG in mothers of children with autism spectrum disorder and in mothers of children with profound intellectual disability was analysed. This relationship was found to be significant for the total PTG, as well as for its specific aspects. Obtained results have confirmed relevance of the hypotheses.

At the same time, contribution of specific coping strategies and general self-efficacy in accounting for the variance in PTG in mothers of children

with disabilities was examined. The conducted regression analyses revealed the predictive role of general self-efficacy, focusing on the problem and religious commitment in accounting for the level of PTG in this group of mothers. Task-based coping with encountered problems, together with the belief about being competent to solve them successfully, allows one to expect a higher scope of positive PTG in mothers in our sample. These results are consistent with findings of Zhang and associates (2015), who account for the significance of these variables for PTG in mothers of children with disabilities as follows. Successful solving of numerous problems encountered by the mothers in their everyday lives contributes to development of the belief that solutions they manage to find are always more meaningful than the problems. This belief provides favourable grounds for greater optimism when struggling with subsequent obstacles and involves a higher propensity to notice positive change related to rearing children with disabilities (Zhang et al., 2015). The predictive role of general self-efficacy in accounting for PTG may be initially explained on the basis of previous research findings focusing on the role of perceived self-efficacy (mediating between the pile-up of stressors and family hardness, Weiss et al., 2013) or of maternal self-efficacy (interrelated with well-being, Kuhn and Carter, 2006) in mothers of children with disabilities.

The revealed predictive role of religion in accounting for the level of PTG in this group of mothers is consistent with findings of Beighton and Wills (2016). This coping strategy is primarily aimed at finding meaning and sense in the experienced life situation, including receiving God's support. Therefore, it involves some kind of reinterpretation of life circumstances that are difficult to accept. Making new meaning from the circumstances to see them as a catalyst for growth may lead to experiencing actual positive growth-producing changes (cf. Phelps et al., 2009). It is important to stress that the coping strategy of religion is a component of all created regression models, which suggests a special role in accounting for total PTG and its specific aspects among mothers of children with disabilities.

The obtained results have confirmed the predictive role of adopted independent variables in accounting for specific aspects of PTG, but to a

lesser extent than originally expected. This is especially true in the case of two PTG aspects, spiritual change (SCH) and changes in self-perception (CHSP), which account for a minor percentage of variance. These results suggest that, firstly, although there is a positive correlation between these variables, there are other factors far more significant in predicting variability of these PTG aspects in mothers raising children with autism spectrum disorder or with profound intellectual disability. Secondly, they may indicate that the correlation between coping strategies and general self-efficacy vs. PTG aspects is more complex and influenced by other factors. This is an important issue that should be addressed in future research. The obtained results indicate that coping strategies and general self-efficacy account for the PTG aspect of changes in relations to others (CHRO) to the greatest extent. Interestingly, a considerable predictive role of humour was observed, which negatively correlated with CHRO level in opposition to other coping strategies. This correlation may be interpreted and accounted for using findings of Konrad (2006). Positive, constructive transformation in relations with others (closeness, partnership) in mothers of children with disabilities was linked to a serious, realistic and open-minded attitude to new child-raising experiences and perception of disability. Therefore, a humorous approach is more conducive to the emergence and perception of positive transformations in relations with others not so much because it allows mothers to gain some distance from encountered problems, but rather because it allows them to discuss new and previously unknown experiences in a more open-minded manner.

## CONCLUSION

The obtained results allow one to draw the following conclusions. Firstly, PTG in mothers of children with disabilities is not homogeneous, and its predominant aspects are appreciation of life and change in relations with others. Secondly, PTG occurring in these mothers is accounted for using specific coping strategies (religion, focus on the problem) and general self-efficacy. Thirdly, coping strategies and general self-efficacy account to different extents for different PTG aspects in this



group of mothers. Fourthly, the reported percent value of the accounted-for variance of PTG (and of specific growth-related changes) implies the predictive role of still other variables that were not considered in the study.

The obtained results, although important and interesting, are not free of limitations. The first limitation results from the heterogeneous sample, composed of mothers of children with profound intellectual disability and of mothers of children with autism spectrum disorder. Assuming that raising a child with a disability involves numerous common problems, specific types of child's disability entail strictly related, specific difficulties. The second limitation is related to the scope of considered independent variables. This study is a direct response to the perceived gap in analyses related to factors likely to facilitate the occurrence of PTG in mothers of children with disabilities. The present study takes into account factors related to the process of coping, in accordance with PTG theory,

which is of key significance for the understanding of its presence and level (Calhoun and Tedeschi, 2006). The factors in the present study are important but incomplete in determining occurrence of positive change leading to growth. Therefore, further studies should examine other variables related to psychological and social resources, in order to gain a more in-depth knowledge of PTG in mothers raising children with disabilities. This follows from the relatively low percentage of variance in PTG and especially in PTG aspects that our models could explain. The third limitation is linked to quantitative measurement of positive change. Consideration of qualitative data would surely broaden our understanding by complementation of unique aspects and those inscribed in the subjective aspect of positive experiences of the mothers. The fourth limitation results from the fact that this is a cross-sectional study. A longitudinal study would capture the dynamic nature of positive changes underlying PTG.

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## POSTTRAUMATSKI RAST MAJKI DJECE S TEŠKOĆAMA U RAZVOJU

**Sažetak:** Psihološka situacija majki djece s teškoćama u razvoju najčešće se analizira u kontekstu njihovih teškoća i kapaciteta za pružanje podrške, a rjeđe se analizira sa stajališta njihovih osobnih resursa. Posttraumatski rast fenomen je koji ukazuje na konstruktivne, pozitivne posljedice traumatskih događaja ili radikalnih životnih promjena koje zahtijevaju prilagodbu. Pojava djeteta s teškoćama u obitelji i kontinuirani stres tijekom podizanja djeteta s teškoćama mogu biti posebno teške situacije koje mogu doprinjeti posttraumatskom rastu. Cilj ovog istraživanja bio je utvrditi povezanost između strategija suočavanja sa stresom, samoučinkovitosti te posttraumatskog rasta kod majki djece s teškoćama u razvoju. U istraživanju je sudjelovalo 96 majki djece s autizmom i majki djece s teškim intelektualnim teškoćama. Za prikupljanje podataka korištena je poljska verzija Inventara posttraumatskog rasta (PTGI - The Post-Traumatic Growth Inventory), adaptirana verzija upitnika COPE (Coping Orientations to Problem Experienced) i Skala opće samoučinkovitosti (General Self-Efficacy Scale). Regresijska analiza pokazala je prediktivnu ulogu strategija suočavanja sa stresom (poput religije i fokusiranosti na problem), kao i samoučinkovitosti u objašnjavanju varijabiliteta u posttraumatskom rastu majki djece s teškoćama u razvoju.

**Ključne riječi:** majke djece s teškoćama u razvoju, posttraumatski rast, suočavanje, samoučinkovitost