

## ORIGINAL ARTICLE

# Sense of Competence, Religious Coping and Post-Traumatic Growth in Mothers of Children with Cerebral Palsy

NOOR UL AIN, NAZIA BASHIR, ANAM ALI

Pak Pediatr J 2025; 49(1): 84-92

### ABSTRACT

**Objectives:** The present study aimed to determine relationship of parenting sense of competence and religious coping with post-traumatic growth in mothers of children with cerebral palsy (CP) after controlling for covariates.

**Study Design:** Cross-sectional research

**Place and Duration of Study:** Different physiotherapy centers and special education schools of Lahore

**Material and Methods:** Sample consisted of 74 mothers, aged 20-45 years, whose children were diagnosed with CP with age range from 2 to 9 years, was collected through purposive sampling. Parenting sense of competence scale, brief RCOPE and post-traumatic growth inventory were used.

**Results:** Hierarchical multiple regression showed that mother's education ( $p < .01$ ) positively predicted appreciation of life. Monthly income ( $p < .05$ ) negatively predicted post traumatic growth and its subscales (spiritual change and appreciation of life). Religious inclination ( $p < .001$ ) positively predicted spiritual change. Skills subscale of parenting sense of competence ( $p < .05$ ) positively predicted personal strength. Moreover, positive religious coping ( $p < .001$ ) positively predicted post-traumatic growth ( $p < .001$ ) and its subscales [relating to others ( $p < .05$ ), personal strength ( $p < .01$ ), spiritual change ( $p < .001$ ) and appreciation of life ( $p < .001$ )] after controlling covariates. However, negative religious coping negatively predicted personal strength ( $p < .01$ ) after controlling covariates.

**Conclusion:** Literate mothers who had high religious inclination and perceived themselves as effective parents experienced more growth, as an outcome of dealing with their child's special needs. Moreover, mothers who employed positive religious coping strategies to cope with challenges posed by disability of their child reported more post-traumatic growth and mothers who reported use of negative religious coping strategies reported less post traumatic growth.

**Key Words:** *Coping, Cerebral palsy, Growth.*

### INTRODUCTION

Cerebral palsy is a chronic, non-progressive

disease characterized as different forms of limitations in control of movement, coordination and posture as a consequence of brain damage<sup>1</sup>

#### Correspondence to:

**Dr. Anam Ali,**  
Senior Clinical Psychologist,  
Developmental & Behavioral  
Pediatrics, University of Child  
Health Sciences, The Children's  
Hospital (UCHS – CH), Lahore,  
Pakistan

**E-mail:** anam.ali90@hotmail.com

Received 12<sup>th</sup> November 2024;  
Accepted for publication  
29<sup>th</sup> January 2025

during pregnancy, birth and even after birth upto three years of child. Cerebral palsy (CP) can be broadly divided into spastic cerebral palsy (difficulty performing fine motor tasks) and non-spastic cerebral palsy (difficulty maintaining balance, body control coordination and involuntary body movements). Its prevalence was reported to be 2 to 3 children out of 1000.<sup>2</sup>

Parenting a child with disability influence parenting competence (perception of parents regarding their abilities to perform a parenting role) which is further comprised of parenting-efficacy (overall perception of parents about their ability to manage the tasks of their children efficiently and accurately) and parenting satisfaction.<sup>3</sup> Parenting a child with disability influence the parenting efficacy and parents need to maintain their sense of competence to enhance positive outcomes in such a stressful or traumatic situation.<sup>4</sup> Lazarus) defines parenting efficacy as one's perceived ability to solve the difficult situation and to meet its demands and it is important in determining that whether one will perceive himself competent or not. It is also associated with parenting satisfaction.<sup>5</sup> Mainly two components govern sense of satisfaction in parents: self-esteem (overall self-evaluation of oneself)<sup>6</sup> and parenting-efficacy (overall perception of parents about their ability to manage the tasks of their children efficiently and accurately).<sup>7</sup> These components influence sense of competence as a whole, as those parents who have high self-esteem and perceive themselves as efficacious (i.e., have high self-efficacy) in managing all parenting tasks, will be able to perceive themselves as competent parents and those who have low self-esteem and have low parenting efficacy will consider themselves as less competent or non-competent comparatively.<sup>8</sup> When parents are faced with a chronic diagnosis of their child, assumptions regarding child's future are challenged and parents strive to cope with these challenges to manage their tasks. Coping is defined as one's effort to minimize stress and to deal with it. In case of disability, most people believe in Muslim culture that having a child with disability has some underlined religious meaning therefore parents turn towards religion and choose religious ways (healthy or unhealthy) to cope. Relying on religion to solve difficulties is termed as religious coping. It can be either

positive or negative. Positive religious coping can be defined as the involvement of religion in positive and healthy ways such as having sense of connectedness with God. While negative religious coping can be defined as involvement of religion in negative and unhealthy ways such as isolating oneself from religious community and feeling that God has abandoned me.<sup>9</sup>

Positive religious coping is associated with growth related outcomes and better psychological health of survivors.<sup>10</sup> However negative religious coping is found to be associated with depression and posttraumatic stress disorder.<sup>11</sup> The type of religious coping used, for dealing with trauma effects psychological health of caregivers. Although parents experience high levels of distress while dealing with disability of their child but Ni et al. have also documented some positive psychological changes that occur along with distress.<sup>12</sup> Post-traumatic growth (PTG) can be defined as positive changes that are the result of efforts made by an individual at psychological and cognitive levels, related to an adversity or trauma. Furthermore, struggle of the individual in facing a trauma predicts the extent to which PTG occurs.<sup>13</sup> According to a model of post-traumatic growth, the more one is exposed to stress, more are the chances to grow out of it. Post-traumatic growth has different domains; greater appreciation of life and change in priorities, intimacy or closeness and warmer relationship with others, enhanced sense of personal growth, spiritual growth and finding new possibilities.<sup>14</sup> Moreover, there are different contributing factors of post-traumatic growth among which "positive coping processes" is an important one as studies have shown significant role of religious coping, problem-focused coping and positive reframing in PTG.<sup>15</sup>

A number of studies have been conducted on having a child with developmental disability and post-traumatic growth.<sup>16</sup> Moreover, relationship of coping with post-traumatic growth has also been studied in caregivers of children with developmental disabilities.<sup>17</sup> Furthermore, none of the study has been conducted in Pakistan to examine the relationship of sense of competence, religious coping and post-traumatic growth in mothers of children with cerebral palsy as per researcher's knowledge. This study will help enhancing parenting competence of mothers to

have more growth-related outcomes and would be helpful in devising therapy for caregivers to improve their well-being and personal growth.

### Objectives:

- To determine association of demographic variables, parenting sense of competence, religious coping and post-traumatic growth in mothers of children with cerebral palsy.
- To determine relationship of parenting sense of competence and religious coping with post-traumatic growth after controlling for covariates (mother's age and education, religious inclination and monthly income).

## MATERIAL AND METHODS

Cross-sectional research design was used to conduct research. A sample of 74 mothers of children with cerebral palsy was collected through purposive sampling. Sample size was determined using G-power analysis, effect size was medium and alpha level was .05. Data was collected from Mobility Quest (A physiotherapy center for children), physiotherapy center of PSRD (Pakistan Society for Rehabilitation of the Disabled) and some special schools including Amin Maktab and COMPASS (Center of Mentally and Physically Affected Special Students), Lahore. Mothers of children with age ranging from 2 to 9 years, who had a formal diagnosis of cerebral palsy either by a developmental pediatrician or neurologist were included in the study. Mothers of age range 20-45 years were included. Mothers of children with cerebral palsy, who were divorced, widowed and separated and who had diagnosis of any psychological or physical illness or had more than one disabled child with cerebral palsy were excluded from the study.

### Measures

#### Parenting sense of competence scale (PSOC):

Parenting sense of competence scale was used to measure the perception of how effectively the mothers of children with the diagnosis of cerebral palsy are taking care of their child's special needs. There were total 17 items in this scale rated on a six points Likert scale. It was further comprised of two subscales; knowledge/skill (efficacy) and valuing/comforting (satisfaction). Among total items 9 are reverse coded. Higher the score on

parenting sense of competence scale, higher is the perceived competence as a parent.<sup>8</sup> In the present study, reliability coefficient of the scale was found to be .76.

**Brief RCOPE (RCOPE):** Brief RCOPE is a measure to assess religious ways of coping in time of distress. This tool is consisted of two major subscales including positive religious coping subscale and negative religious coping subscale. There are total 14 items in the tool that use a 4-points Likert type scale where 1 indicates "never" and 4 indicates "more often". Higher score on subscale of positive religious coping indicates more use of positive strategies and higher score on subscale of negative religious coping indicates more use of negative strategies.<sup>11</sup> Cronbach's alpha for present study was found to be .61 for positive religious coping subscale and .73 for negative religious coping subscale.

**Post-traumatic growth inventory (PTGI):** An Urdu translated version of PTG inventory was administered to assess level of post-traumatic growth in participants of the study. There are total 21 items which are further comprised of five subscales including new possibilities, spiritual change, appreciation of life, relating to others and personal strength as a result of experiencing trauma. Higher the score higher will be the level of post-traumatic growth of respondent.<sup>18</sup> In present study the overall internal consistency of the tool was found to be .81; and for subscales Cronbach's alphas values were .65 for new possibilities, .62 for relating to others, .73 for personal strength, .51 for spiritual change and .57 for appreciation of life subscale.

**Demographic questionnaire:** A demographic questionnaire was devised and it was administered to assess information related to certain demographic variables of the participant including age, education, religion, family system, occupation, monthly income, satisfaction with income, number of children, age at conception of child with cerebral palsy.

**Procedure:** First, permission from Departmental Doctoral Program Committee of Centre for Clinical Psychology, University of the Punjab, Lahore (dated: 07-05-2024), was taken to conduct research. Permission to collect data was taken from physiotherapy centers and special education

schools. Participants who met the inclusion criteria were informed about the purpose of research, its nature, time required to complete questionnaires, confidentiality, anonymity and their right to withdraw from study at any point in time. After providing the necessary information an informed consent was taken in written from participants to make sure that they are willing to participate in research. After taking informed consent all research tools including demographic questionnaire, PSOC scale, Brief RCOPE and PTG-inventory were administered individually to collect data.

**Statistical analysis:** Statistical Package for the Social Sciences (SPSS) version 25.0 was used to analyze data of the research. Frequency and percentages of demographic variables were calculated. Pearson Product Moment correlation was employed to determine the relationship between demographic variables, parenting sense of competence, religious coping and post-traumatic growth in mothers of children with cerebral palsy. Hierarchical multiple regression analysis was carried out to determine predictive relationship of parenting sense of competence and religious coping with post-traumatic growth after controlling for covariates (mother's age and education, religious inclination and monthly income).

## RESULTS

In the present study, mean age of CP child was 4.7 years (SD = 2.14) and mean age of mother of children with CP was 30.23 years (SD = 5.65). Mean age at the time of conception was 25.19 (SD = 4.65). Mean value of mother's education

was found to be 8.01 years (SD = 5.18) and mean value of father's education was 7.95 years (SD = 5.45). Majority (71.6%) of participants had 1 to 3 children and (52.7%) belonged to joint family system. Majority (68.9%) had their own business and (78.4%) were satisfied with their monthly income (table 1).

**TABLE 1 Demographic characteristics of Participants (n = 74)**

	F	Percentage
<b>Religion</b>		
Islam	72	97.3
Christianity	2	2.7
<b>Occupation of husband</b>		
Business	51	68.9
Job	21	28.4
Unemployment	2	2.7
<b>Family system</b>		
Joint family system	39	52.7
Nuclear family system	35	47.3
<b>Income satisfaction</b>		
Yes	58	78.4
No	16	21.6
<b>Number of children</b>		
One to Three	53	71.6
Four to Six	20	27
Seven to Ten	1	1.3
	<b>M</b>	<b>SD</b>
Child's age (in years)	4.7	2.14
Mother's age (in years)	30.23	5.65
Mother's education (in years)	8.01	5.18
Father's education (in years)	7.95	5.45
Age at conception (in years)	25.19	4.65

**TABLE 2: Pearson Product Moment Correlation between demographic variables, parenting sense of competence scale, religious coping and subscales of post-traumatic growth**

Vari-ables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	M	SD
Mother's educa-tion	-	.15	-.25*	.09	.29*	-.08	.21	.12	.16	-.02	-.05	.06	.08	-.04	.27*	.06	8.01	5.18
Mother's age		-	-.10	.18	-.24*	-.04	.08	.03	-.02	.01	-.06	.02	.01	.14	.02	.01	30.23	5.65
Religious inclina-tion			-	-.20*	-.07	.35**	-.02	.11	.13	-.06	-.03	.12	.19	.44**	.02	.14	7.70	1.69
Family system				-	-.21	-.24*	-.07	-.15	-.14	-.06	-.16	-.02	-.06	-.16	.04	-.11	1.50	0.58
Monthly income					-	-.12	-.05	-.11	-.08	.24*	-.13	-.17	-.11	-.25*	-.17	-.21	1304	1210
Knowledge /skill						-	.46**	.77**	.37**	-.40**	.34**	.42*	.49**	.45**	.43**	.56**	37.32	3.93
Valuing/ comfort-							-	.89**	.41*	-.27*	.19**	.54*	.33**	.32**	.49**	.47**	33.69	6.66

Note: \*p<.05, \*\*p<.01.

( $p < .05$ ) negatively predicted post traumatic growth and its subscales (spiritual change and appreciation of life). Religious inclination ( $p < .001$ ) positively predicted spiritual change. Results also revealed that skills subscale of parenting sense of competence ( $p < .05$ ) positively predicted personal strength. Moreover, positive religious coping ( $p < .001$ ) positively predicted post-traumatic growth ( $p < .001$ ) and its subscales [relating to others ( $p < .05$ ), personal strength ( $p < .01$ ), spiritual change ( $p < .001$ ) and appreciation of life ( $p < .001$ )] after controlling covariates. However, negative religious coping negatively predicted personal strength ( $p < .01$ ) after controlling covariates (table 3).

Results of hierarchical multiple regression showed that mother's education ( $p<.01$ ) positively predicted appreciation of life. Monthly income

	Relating to others		New possibilities		Personal Strength		Spiritual Change		Appreciation of life		Post-traumatic growth	
Variables	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$B$	$\Delta R^2$	$\beta$
Model 1	.02		.06		.06		.26***		.12*		.08	
Mother's education		-.04		.16		.13		.15		.33**		.15
Religious inclination		-.05		.15		.21		.46***		.09		.16
Monthly income		-.12		-.20		-.13		-.26*		-.25*		-.24*
Model 2	.22*		.37***		.43***		.25***		.38***		.51***	
Mother's education		-.11		-.00		.04		.02		.18		-.01
Religious		-.18		.08		.02		.35**		-.06		-.02

inclination						
Monthly income	-.03	-.06	-.01	-.17	-.15	-.09
Knowledge/skill (efficacy)	-.05	-.10	.60*	.08	.14	.14
Valuing/comforting (satisfaction)	-.59	.13	.54	.08	.07	-.07
Parenting sense of competence	.78	.36	-.79	.01	.16	.29
Positive religious coping	.30*	.19	.32**	.39***	.41***	.42***
Negative religious coping	.00	-.20	-.33**	-.08	-.01	-.16
Total R <sup>2</sup>	.24*	.43***	.49***	.52***	.49***	.59***

Note. \*\*p<.01, \*\*\*p<.001;  $\beta$  = Standardized Co efficient;  $\Delta R^2$  = R Square change; R<sup>2</sup> = R Square

## DISCUSSION

It was hypothesized that there is likely to be association of demographic variables, parenting sense of competence, religious coping and post-traumatic growth in mothers of children with cerebral palsy. This hypothesis was partially accepted. Results revealed that there is a positive correlation of education level of the mother with appreciation of life i.e., a factor of post-traumatic growth. This can be related to a study done by White who reported that those having low levels of education had poor appreciation and meaning in life.<sup>19</sup>

Present study results also revealed that religious inclination positively correlated with spiritual change. This finding is consistent with previous literature who reported strong positive correlation between religiosity and spirituality.<sup>20</sup>

It was also found in the present study that monthly income negatively correlated and predicted post traumatic growth and its subscales. It can be related to a study who reported that caregivers of children with developmental disabilities bear a financial burden that affects their level of post traumatic growth; as low income is related to low PTG.<sup>21</sup>

It was also hypothesized that parenting sense of competence and religious coping is likely to predict post-traumatic growth after controlling for covariates. This hypothesis was fully supported. Results revealed that skills/efficacy subscale of parenting sense of competence (p<.05) positively predicted personal strength. This finding was consistent with the concept of parenting-efficacy as explained by Bandura who defines parenting

efficacy as parent's ability to manage the child care tasks accurately and efficiently, those parents who perceive themselves as more skillful and competent are more likely to survive efficiently in face of trauma.<sup>7</sup> A study indicated that when mothers of children with disabilities were interviewed, they explained that for dealing with child's disability related difficulties and parenting tasks they need to be strong and enhance their skills. Such changes can increase their parenting efficacy and will serve as an opportunity for them to grow effectively and to experience post-traumatic growth.<sup>22</sup>

In the present study, it was found that positive religious coping positively predicted post-traumatic growth and its subscales (relating to others, personal strength, spiritual change and appreciation of life), however, negative religious coping negatively predicted personal strength. This finding is consistent with a study conducted on earth quake affected population which showed that positive religious coping had a positive association with spiritual change, relating to others and personal strength. Moreover, negative religious coping had a significant negative association with personal growth subscale of PTG.<sup>23</sup>

Researches further reported a significant positive relationship between positive religious coping and post-traumatic growth and negative relationship between negative religious coping and post-traumatic growth in aftermath of a trauma.<sup>24</sup> Another study highlighted that all forms of religious coping do not result in growth related outcomes. And it clearly highlighted that positive religious coping such as finding a connection with

God and asking for God's love, is associated with growth and negative religious coping such as feeling of being punished by God or questioning the power of God, is associated with psychological distress and mental health problems. They further elaborated that excessive use of negative religious coping such as feeling of being left alone by God and being punished by God will lead to experience less growth.<sup>9</sup> Moreover, these negative interpretations also lead to experience stress and social isolation.<sup>25</sup>

### CONCLUSION

Literate mothers who had high religious inclination and perceived themselves as effective parents experienced more growth, as an outcome of dealing with their child's special needs. Moreover, mothers who employed positive religious coping strategies to cope with challenges posed by disability of their child reported more post-traumatic growth and mothers who reported use of negative religious coping strategies reported less post traumatic growth.

**Conflict of interest:** None

### Author's affiliation

#### Noor ul Ain,

Clinical Psychologist, Developmental & Behavioral Pediatrics, University of Child Health Sciences, The Children's Hospital (UCHS – CH), Lahore, Pakistan

#### Dr. Nazia Bashir,

Assistant Professor, Developmental & Behavioral Pediatrics, University of Child Health Sciences, The Children's Hospital (UCHS – CH), Lahore, Pakistan

#### Anam Ali,

Senior Clinical Psychologist, Developmental & Behavioral Pediatrics, University of Child Health Sciences, The Children's Hospital (UCHS – CH), Lahore, Pakistan

### REFERENCES

1. Paul S, Nahar A, Bhagawati M, Kunwar AJ. A Review on Recent Advances of Cerebral Palsy. *Oxid Med Cell Longev*. 2022;2022:2622310. Published 2022 Jul 30. doi:10.1155/2022/2622310
2. Sadowska M, Sarecka-Hujar B, Kopyta I. Cerebral Palsy: Current Opinions on Definition, Epidemiology, Risk Factors, Classification and Treatment Options. *Neuropsychiatr Dis Treat*. 2020;16:1505-1518. doi:10.2147/NDT.S235165
3. Vadivelan K, Sekar P, Sruthi SS, Gopichandran V. Burden of caregivers of children with cerebral palsy: an intersectional analysis of gender, poverty, stigma, and public policy. *BMC Public Health*. 2020;20(1):645. doi:10.1186/s12889-020-08808-0
4. Finzi-Dottan R, Triwitz YS, Golubchik P. Predictors of stress-related growth in parents of children with ADHD. *Res dev disabil*. 2011;32(2):510-9.
5. Lazarus RS, & Folkman S. *Stress, appraisal and coping*. 1984. New York: Springer.
6. Rosenberg M. "The Self-Concept: Social Product and Social Force." *Social Psychology*, 1990; 5,593-601.
7. Bandura, A. *Social learning theory*. Englewood cliffs N. J: Prentice Hall Bandura, A. (1997). Self-efficacy: The exercise of control. New York: Freeman.
8. Gibaud-Wallston J, Wandersman LP. Parenting sense of competence scale. *Can J Behav Sci/Revue canadienne des sciences du comportement*. 1978.
9. Park CL, Holt CL, Le D, Christie J, Williams BR. Positive and Negative Religious Coping Styles as Prospective Predictors of Well-Being in African Americans. *Psycholog Relig Spiritual*. 2018;10(4):318-326. doi:10.1037/rel0000124
10. Gerber MM, Boals A, Schuettler D. The unique contributions of positive and negative religious coping to posttraumatic growth and PTSD. *Psychol Relig Spirit*. 2011;3(4):298.
11. Pargament KI, Smith BW, Koenig HG, Perez L. Patterns of positive and negative religious coping with major life stressors. *J Sci Study Relig*. 1998;1:710-24.
12. Ni ZH, Lv HT, Wu JH, Wang F. Post-traumatic growth in caregivers of children hospitalized in the PICU due to traffic accident: a qualitative study. *BMC nursing*. 2023;22(1):48.
13. Sen Mukherjee A, Barr M. 'A blessing and a burden': Exploring posttraumatic growth in doctors with acquired invisible disability-An interpretative phenomenological analysis. *Br J Health Psychol*. 2023;28(2):586-603. doi:10.1111/bjhp.12642
14. Teixeira RJ, Pereira MG. Factors contributing to posttraumatic growth and its buffering effect in adult children of cancer patients undergoing treatment. *J Psychosoc Oncol*. 2013;31(3):235-65.

15. Rajandram RK, Jenewein J, McGrath C, Zwahlen RA. Coping processes relevant to posttraumatic growth: an evidence-based review. *Support Care Cancer*. 2011;19(5):583-589. doi:10.1007/s00520-011-1105-0
16. Strecker S, Hazelwood ZJ, Shakespeare-Finch J. Postdiagnosis personal growth in an Australian population of parents raising children with developmental disability. *J Intellect Dev Disabil*. 2014;39(1):1-9.
17. Lu W, Xu C, Hu X, et al. The Relationship Between Resilience and Posttraumatic Growth Among the Primary Caregivers of Children With Developmental Disabilities: The Mediating Role of Positive Coping Style and Self-Efficacy. *Front Psychol*. 2022;12:765530. doi:10.3389/fpsyg.2021.765530
18. Tedeschi RG, Calhoun LG. The Posttraumatic Growth Inventory: measuring the positive legacy of trauma. *J Trauma Stress*. 1996;9(3):455-471. doi:10.1007/BF02103658
19. White J. Education and a meaningful life. *Oxford Review of Education*. 2009;35(4):423-35.
20. Carranza Esteban RF, Turpo-Chaparro JE, Mamani-Benito O, Torres JH, Arenaza FS. Spirituality and religiousness as predictors of life satisfaction among Peruvian citizens during the COVID-19 pandemic. *Heliyon*. 2021;7(5):e06939. doi:10.1016/j.heliyon.2021.e06939
21. Zhang L, Lu Y, Qin Y, Xue J, Chen Y. Post-traumatic growth and related factors among 1221 Chinese cancer survivors. *Psychooncology*. 2020;29(2):413-422. doi:10.1002/pon.5279
22. Konrad S. Posttraumatic growth in mothers of children with acquired disabilities. *Journal of Loss and Trauma*. 2006;11, 101-113, doi: 10.1080/15325020500358274.
23. García FE, Páez-Rovira D, Cartes Zurtia G, Neira Martel H, Reyes Reyes A. Religious coping, social support and subjective severity as predictors of posttraumatic growth in people affected by the earthquake in Chile on 27/2/2010. *Religions*. 2014;5(4):1132-45.
24. Abu-Raiya H, Sulleiman R. Direct and indirect links between religious coping and posttraumatic growth among Muslims who lost their children due to traffic accidents. *Journal of Happiness Studies*. 2021;22(5):2215-34.
25. Bazna MS, Hatab TA. Disability in the Qur'an: The Islamic alternative to defining, viewing, and relating to disability. *J Relig, Disabil Health*. 2005;9(1):5-27.