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Parenting stress, resilience, religiosity, and emotional competence in caregivers of children with special needs

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Abstract: Children with special needs require caregivers to care for them and provide full or partial assistance in the carrying out of their daily activities, including undergoing therapy, going to school, receiving medication, and performing their daily routines. This can cause stress and a burden of care for caregiver, meaning that caregivers require emotional competence; this study aims to develop a model of such competence. Using a cross-sectional, correlational quantitative approach, data were collected from 120 caregivers selected purposively from the Yamet Foundation in Central Java. The research instruments were the Profile of Emotional Competence, Centrality of Religiosity Scale, Resilience Scale, and the Parenting Stress Scale. The data were analyzed using structural equation modeling (SEM) with Lisrel. The findings reveal that the proposed model successfully captures the relationships between parenting stress, resilience, religiosity, and emotional competence. Parenting stress significantly and negatively affects emotional competence, with a path coefficient of $\beta = -.39$, $t = -5.29$, with higher stress levels correlating to reduced resilience and religiosity. In addition, resilience and religiosity act as mediator variables, with a score of $z = -2.346$ for religiosity and $z = -2.017$ for resilience, meaning that both variables act as mediators. However, resilience and religiosity do not directly influence each other. The study suggests that enhancing parents' resilience and religiosity may buffer the impact of parenting stress on emotional competence. Thus, psychosocial support programs should integrate resilience-building and spiritual-based approaches to empower families of children with special needs.

Keywords: emotional competence; parenting stress; resilience; religiosity; caregivers for special needs children

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Introduction

Children with special needs or disabilities require more attention. According to World Health Organization, disability is complex, dynamic and multidimensional. It is a general term for impairments, activity limitations and participation restrictions, and refers to the negative aspects of interactions between individuals (with health conditions) and individual contextual factors (environmental and personal) (WHO, n.d.). Children with special needs require special treatment because of their developmental disorders and abnormalities. Regarding the term 'disability', children with special needs have limitations in one or several physical abilities, such as being blind or deaf, or suffer from psychological conditions, such as autism spectrum disorder (ASD) or attention deficit hyperactivity disorder (ADHD) (Desiningrum, 2016).

Children with special needs are also described as ones with unique characteristics that are distinguishable from children in general; for example, physical or mental and intellectual limitations, which mean they are unable to lead their lives independently (Heward & Orlansky, 1988; Parsons, 2011). Such children need caregivers to care for them and provide full or partial assistance in the carrying out of their daily activities, including receiving therapy, attending school, medication, and daily routines. The stress levels experienced by parents with ASD are much higher compared to parents with parents of typically developing children (Alibekova et al., 2022). The source of stress experienced by parents is not only from their children but also from stigma, blame, judgment, and embarrassment from people around them because of their child's behavior (Hartini et al., 2021). The higher the level of caregiving burden experienced, the higher the caregiver's risk of chronic pain (Castillo et al., 2022). Social protection for children with disabilities and their families is essential because such families often face higher living costs (Kirk et al., 2014; Schraeder, 1995).

The burdens on caregivers result in a low quality of life that affects their mental health (Desiningrum et al., 2023). It has been shown that there is a negative correlation between the parental distress variable and personal competence, life satisfaction, and acceptance of self (Gavín-Chocano et al., 2024). Based on a meta-analysis of 17 studies, the prevalence of caregiver depression was 34%, of anxiety 43.6% and of psychotropic use 27.2% (Sallim et al., 2015). The analysis found that the likelihood of experiencing depression was 1.53 times higher for female caregivers, 1.86 times higher for patient caregivers and 2.51 times higher for spousal caregivers. There results of several studies show that parents of children with special needs who do not accept their child's condition can be inattentive and consider the condition to be a burden (Dieleman et al., 2018), including burdens associated with caring and the cost of therapy (Donnelly, 2015; Russell & McCloskey, 2016). Caregivers who consider caring for children with special needs to be a burden find it challenging to establish close relationships with them (Moreira et al., 2015); do not develop warm relationships (Benson, 2006; Pottie et al., 2009); and ignore their child's development (Greenlee et al., 2018). Some parents even commit violence against their children because of the effects of stress (Chan & Lam, 2016; Osborne et al., 2008; Ozturk et al., 2014; Walter & Smith, 2016). These findings show negative parenting attitudes of parents or caregivers towards children with special needs. In contrast, positive parenting can stimulate child development and support the welfare of the children and all family members (Martínez-González et al., 2016).

Positive attitudes in caring for children with special needs are mediated by internal processes (including emotions and motivation) that are

responsible for the behavior displayed and the cognitive processes in self-understanding (Volling et al., 2009). Emotional factors are predictors of the formation of positive parenting attitudes in individuals. As supported by the findings of Msiska et al. (2014), emotional involvement is one of the constructs that mediates a person's experience and knowledge in acting compassionately. Caregivers of children with special needs should control, manage and display appropriate emotional expressions, which are part of emotional competence (Saarni et al., 2007), in order to improve the quality of care (Volling et al., 2009). Good quality parenting can stimulate children's physical and psychological well-being (Mann, 2013; Ulofoshio, 2017) and support the optimization of the development of those with disabilities (Etournaud, 2017).

Caregivers' emotional condition can be influenced by caregiving stress, namely how well they are able to perform the caregiving, thereby avoiding stress in the process (Benson, 2010; Da Paz et al., 2018). In one study, a relationship was also found between religiosity and individual emotional (Paek, 2006).

One of the key elements in individuals' life is religiosity, which determines their thoughts and acts (Stearns & McKinney, 2020). Religious people tend to have better adjustment abilities, particularly in forming adaptive parenting skills. However, the relationship between parenting and religiosity requires further development and testing of its theoretical model (Goeke-Morey & Cummings, 2017). According to Reutter and Bigatti (2014), religiosity and spirituality are important resources for coping with stress. Those with high levels of religiosity are more likely to engage in collaborative religious coping, which involves actively sharing responsibility with God in solving problems (Fabricatore et al., 2004). Religiosity fosters a sense of God's support, leading to improved psychological well-being (Lloyd & Reid, 2022). According to Fabricatore et al. (2004), collaborative religious coping can enhance well-being and reduce psychological distress.

Individuals' emotions in facing life challenges, such as those of caregivers who have the difficult task of caring for and educating children with special needs, can be influenced by their ability to rise from adversity or survive all the burdens of life, which is referred to as resilience (Cheatham & Fernando, 2022; Das et al., 2017; Fernandes et al., 2021).

This plays a role similar to that of religiosity. Stress in parenting, particularly that suffered by parents of children with ASD, affects family resilience (Cripe, 2013). Cripe explains that high stress experienced by both fathers and mothers impacts their resilience, which acts as a mediator between stress and coping style. High stress levels reduce resilience, leading individuals to employ less adaptive coping styles (Zhang et al., 2024). Such styles are a characteristic of emotional competence. Resilience is a skill that mediates the relationship between emotional intelligence and perceived stress (Sarrionandia et al., 2018). Stress negatively influences resilience and accounts for much of its variation (Wilks & Croom, 2008).

It can be concluded that caregivers of children with special needs are prone to experiencing stress. However, they need to continue to provide positive care. Effective emotional competence is necessary for caregivers, including the ability to control and manage their emotions and to display appropriate emotional expressions. Therefore, the research questions in this study consider how the emotional competency in caregivers of children with special needs is formed, and what factors influence the formation of caregivers' emotional competency. From the results of previous studies, it was found that individual emotions can be influenced by parenting stress, social support, and religiosity. All the components of the research questions will contribute to building an initial model of the emotional competence of caregivers for children with special needs.

The novelty of this study is that it includes religiosity and resilience as mediators of the relationship between parenting stress and emotional competence, whereas previous studies have only found a direct relationship between parenting stress and emotional competence. For example, Martínez-González et al. (2016) found that one of the factors that forms parental emotional competence is the parenting conditions experienced, including how parenting stress affects parental emotions. In other previous research on the relationship between parenting stress and religiosity, it was found that religiosity can reduce such stress (Daulay et al., 2022). Other studies also found that parenting style could influence resilience through religiosity (Savira et al., 2024), and that in the relationship between stress and resilience, the stress experienced by individuals could negatively affect the resilience of parents with children with ASD (Das et al., 2017).

This research therefore aims to examine the relationship between parenting stress and the emotional competence of parents of children with special needs, with the mediation of resilience and religiosity.

Methods

This research is a cross-sectional study, using a quantitative correlational design. The analysis employed path analysis with the LISREL 8.8 program to determine the correlation between the variables, and the Sobel test to find the mediating variables. The research sample was obtained using a purposive sampling technique; the 120 subjects were members of the community of parents of children with special needs at the Yamet Foundation, Central Java.

Four psychological scales were employed: Emotional Competence, Religiosity, Resilience, and Parenting Stress. The Researchers adapted the original scale, after corresponding with the scale developer and obtaining permission. The emotional competence scale from Brasseur et al. (2013), Religiosity from Huber and Huber (2012), Resilience from Reivich and Shatté (2002), and the parenting stress scale adapted from Deater–Deckard (2004). The researchers adapted the original scale, after corresponding with the developer and obtaining permission. Adaptation of the measuring instruments was based on the ITC Guidelines for Translating and Adapting Test Second Edition (International Test Commission, 2018; Muñiz et al., 2013), which consists of five stages: pre-condition, test development, confirmation, administration and documentation.

The emotional competency scale (PEC) was adopted from Brasseur et al. (2013), which consists of five dimensions: Identification, Understanding, Expressions, Regulations, and Use. The researchers used the 20-item version, which was validated for content by three professionals. The scale demonstrated good fit in the Goodness-of-fit test, with all 20 items being valid, and the five dimensions showing high reliability based on composite reliability (CR) and average variance extracted (AVE). The CFA results indicated a good fit (chi-square = 169.10; GFI = .90; RMSEA = .08; CFI = .90), confirming the scale's validity and reliability for use in the research.

The measurement of religiosity in the study was based on an adaptation of the Centrality of Religiosity Scale (CRS) developed by Huber and Huber (2012), which comprises five dimensions: 1) public practice; 2) private practice; 3) religious experience; 4) ideology; and 5) intellectuals. The 15-item version (CRS-15), with three items per dimension, showed high reliability and validity, making it suitable for the study. The 2nd Order CFA confirmed good fit criteria (chi-square = 83.31; GFI = .90; RMSEA = .08; CFI = .90), with high reliability for the five dimensions based on CR and AVE. The CRS-15 meets validity and reliability standards, making it applicable for the research.

Resilience refers to overcoming and adapting to difficult events or problems in life; surviving under stress; and dealing with adversity or trauma (Reivich & Shatté, 2002). Aspects of resilience include meaningful life (purpose); perseverance; equanimity; self-reliance; coming home to yourself (existential aloneness).

This resilience scale, adapted from Reivich and Shatté (2002), consists of 21 items scored on a range from 1 (very inappropriate) to 5 (very suitable). The 2nd Order CFA confirmed good fit criteria (chi-square = 200.81; RMR = .05; GFI = .90; RMSEA = .08; CFI = .90), with all items valid and the five dimensions showing high reliability based on CR and AVE. The Resilience scale also meets the convergent validity test, confirming its validity and reliability for research.

According to Deater-Deckard (2004), parenting stress is a series of processes that leads to unwelcome psychological conditions and psychological reactions that arise to adapt to the demands of parenting. Aspects of parenting stress include parental distress, difficult children, and parent-child dysfunctional interaction. The parenting stress scale (PSS) consists of 24-item statements representing the intensity of stress symptoms experienced by respondents in raising their children. These are assessed on a 4-point Likert Scale: always, often, rarely, never. The data show: Chi-square value = 245.28; GFI = .90; RMR = .05; RSMEA = .08; CFI = .90, which indicate a fit scale model. It can be concluded that the Parenting Stress Scale (PSS) can be used for the research because it is considered valid and reliable.

All the results of the second order confirmatory factor analysis (2nd order CFA) show that all the items for each measuring instrument have a factor loading greater than 0.5, indicating that they all meet the convergent validity test. The CR and AVE values show that all the scales are reliable. Furthermore, all the scales meet the fit model criteria, so can be used for the research because they pass the validity and reliability tests.

In this study, the researchers employed structural equation modelling (SEM) using LISREL 8.8 software (Wijanto, 2015), by which a model consisting of exogenous and endogenous variables was tested. The t-values of each exogenous variable are generated towards the endogenous variables. The manifest variable significantly contributes if the t-value is greater than the critical t (t-value > ±1.96), using a measurement error of 5%. After passing the validity and reliability test with the CFA model, the next step was to analyze the suitability of the data with the goodness of fit (GOF) standard.

In another stage, the researchers also conducted a CFA test by considering the demographic context based on the type of special needs of the children, namely 1) children with ASD and/or ADHD; 2) children with Down's syndrome/MR; and 3) children with physical disabilities. Moreover, the comparability of the scale across all types of children with specific disabilities was checked.

CFA provides estimates of the relationship between observed indicators and hypothesized latent constructs (factors), and generates a fit index that reports whether the hypothesized structure of the association between the latent construct and its proposed indicators fits the data. Unlike single-group CFA, model matching in multigroup CFA is performed by defining as many models as there are groups being tested (Asparouhov & Muthén, 2014; G. T. L. Brown et al., 2017).

This matching process produces parameter values (e.g., factor loadings) for each group. However, the test produces one model fit index (e.g., chi square or GFI) that applies to all three groups. A high model fit value indicates that the model being tested, when applied to the groups involved, will obtain the same stable or consistent results. In statistical terminology, this consistent

result is called invariance and is tested using multigroup confirmatory factor analysis (Widhiarso, 2011).

The testing procedure includes a series of stages or sequences that begin with testing the basic model (baseline), which is conducted on separate groups. The model represents the principles of parsimony (simplicity) and substantiality. After the basic model is matched to the data and proven to fit, the analysis continues from the least restricted model to the most restricted model. The tightness of the model can be seen from how many of its parameters have the same value, or are constrained by the researcher. In the context of MGCFA (multigroup confirmatory factor analysis), these restrictions are imposed with the aim of gauging the extent to which the groups being tested possess similarities. The series of research discussions below begin with the CFA for each group from the PSS, PEC, Religiosity, and Resilience Scales, and will continue with a discussion of the invariance test.

Data collection using Google Forms was conducted in February-March 2022. The data were obtained from participants who were members of the community of parents/caregivers of children with special needs at the Yamet Child Development Center, Central Java region, especially in some cities, Semarang, Klaten, Karanganyar and Solo. The questionnaires form was distributed by the research team with the help of the head of the Yamet agency via the WA group.

The research obtained Ethical Clearance approvement from the UNDIP Psychology Ethics Committee (KEPPU), No. 212/UN7.F11/PP/VIII/ 2022.

Results

The research participants were parents of children with special needs, of whom 1) 58 had ASD and/or ADHD; 2) 36 had Down's syndrome/MR; and 3) 26 had physical disabilities. In addition, the research subjects consisted of 99 mothers (M=34, SD=2.9) and 21 fathers (M=39, SD=3.1), all of whom came from various districts/cities in Central Java, Indonesia.

Comprehensive Model

Figure 1 shows the estimated t-values of the Comprehensive Measurement Model. Based on Figure 1, the structural equations for the model were as follows.

1st Equation

This section presents the results of the path analysis conducted to examine the influence of resilience, religiosity, and perceived social support (PSS) on PEC. The analysis focuses on path coefficients and the proportion of variance explained (R^2) by the model: 1) The path coefficient of the resilience variable to PEC is .15. The direction is positive, which means that with an increase of 1 unit in resilience, PEC will increase by .15, and vice versa. 2) The path coefficient of the religiosity variable to PEC is .20. The direction is positive, which means that with an increase of 1 unit in the variable, PEC will increase by .20, and vice versa. 3) The path coefficient of the PSS variable to PEC is .26. The direction is negative, meaning that if PSS increases by 1 unit, PEC will decrease by 0.26, and vice versa. 4) The value of R2 (R-squared) is .21, which means that the resilience, religiosity and PSS variables have an influence of 21.0% on PEC.

2nd Equation

The following analysis describes the effect of perceived social support (PSS) on resilience. Path analysis results show how PSS contributes to variations in resilience, as indicated by the path coefficient and R^2 value: 1) The path coefficient of the PSS variable to resilience is -0.33. The direction is negative, meaning that with an increase of 1 unit in PSS, resilience will decrease by 0.33, and vice versa. 2) The value of R2 (R squared) obtained was .11, which means that PSS affects 11.0% of resilience.

3rd Equation

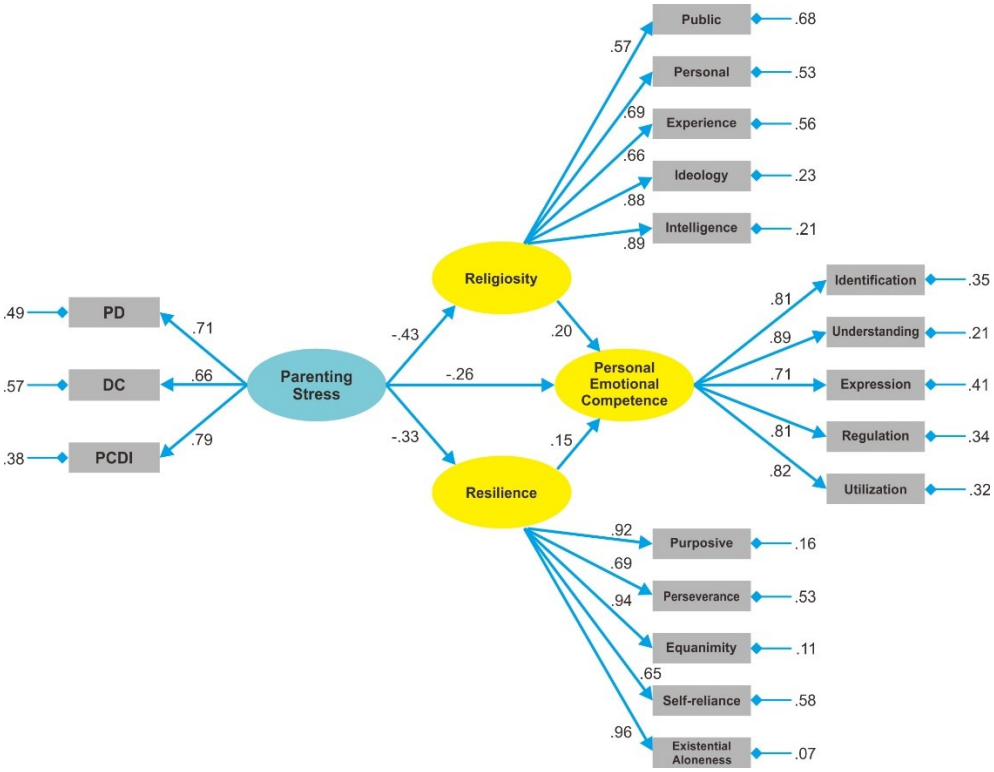
This section examines the influence of perceived social support (PSS) on religiosity. The path analysis reveals the strength and direction of this relationship, along with the proportion of variance in religiosity explained by PSS: 1) The path coefficient of the PSS variable towards religiosity is -.43. The direction is negative, meaning that if PSS increases by 1 unit, religiosity will decrease by.43, and vice versa. 2) The R2 (R squared) value obtained was .19, indicating that PSS has an influence of 19.0% on the religiosity variable.

Comprehensive Measurement Model

From the comprehensive measurement model, the t-values of each exogenous variable are generated towards the endogenous variables. The manifest variable significantly contributes if the t-value is greater than the critical t (t-value > ±1.96), using a measurement error of 5%. The results show that 1) the parenting stress variable has a partial and significant effect on the emotional competence variable; 2) the parenting stress variable has a significant effect on the resilience and religiosity variables; 3) the resilience variable has a significant effect on the emotional competency variable, but has no significant effect on religiosity; 4) the religiosity variable has a significant effect on emotional competence, but does not significantly influence resilience. The comprehensive measurement model can be seen in the Table 1. The measurement model equation for religiosity, PSS and resilience is shown in Table 2.

Figure 1

Estimated t-values of Comprehensive Measurement Model



Note: Chi-square = 95.17, df = 130, p-value = 0.99056, RMSEA = 0.000, PD = Parent Distress, DC = Difficult Child, PCDI = Parent-Child Disfunctional Interaction

Table 1

Measurement Model Equation for the PSS Variable

Variable	Exogenous Indicator		Exogenous Constructs ξ1		Error	t-value
PSS	PD	=	.71 ξ1	+	.45	11.25
	DC	=	.66 ξ1	+	.57	10.29
	PCDI	=	.79 ξ1	+	.38	12.61

Note: PSS = Parenting Stress Scale, PD = Parent Distress, DC = Difficult Child, PCDI = Parent-Child Disfunctional Interaction

Table 2

Measurement Model Equation for Religiosity, Resilience and PEC

Variable	Exogenous Indicator		Exogenous Constructs η1	η2	η3		Error	t-value
Religiosity	Public	=	. 57 η1			+	. 68	–
	Personal	=	. 69 η1			+	. 53	8.29
	Experience	=	. 66 η1			+	. 56	8.09
	Ideology	=	. 88 η1			+	. 23	9.53
	Intelligence	=	. 89 η1			+	. 21	9.57
PEC	Identification	=		.81 η2		+	.35	-
	Understanding	=		.89 η2		+	.21	16.28
	Expression	=		.77 η2		+	.41	13.49
	Regulation	=		.81 η2		+	.34	14.45
	Utilization	=		.82 η2		+	.32	14.76
Resilience	Purposive	=			.92 η3	+	.16	-
	Perseverance	=			.69 η3	+	.53	13.57
	Equanimity	=			.94 η3	+	.11	27.32
	Self-reliance	=			.65 η3	+	.58	12.40
	Existential aloneness	=			.96 η3	+	.07	29.49

Note: PEC = Personal Emotional Competence

The significance test of the contribution of each manifest variable to the latent variable can be seen from the t-value. The manifest variable is said to have a significant contribution value if it has a t-value greater than the critical t (±1.96). Based on the recapitulation table above, it can be seen that the t-value for all indicators is greater (±1.96), based on a significance level of 5%. This shows that all the indicators are significant in reflecting the latent variables.

Goodness-of-fit of the Comprehensive Measurement Model

In this study, the researchers used SEM as contained in the Lisrel program, whereby a model consisting of exogenous and endogenous variables

was tested. After passing the validity and reliability tests with the CFA model, the next step was to analyze the suitability of the data with goodness of fit (GOF). This test evaluates whether the resulting model is fit. From the printed output generated by the estimation of CFA measurements in the Lisrel program, the analysis of the comprehensive measurement model is presented in Table 3:

From the goodness-of-fit analysis, all the criteria were categorized as being a good fit. Therefore, the model could be accepted, and the following analysis was performed.

Hypothesis Testing

Partial hypothesis testing was conducted to determine whether:

H_1: Resilience has an effect on PEC.
H_2: Religiosity has an effect on PEC.
H_3: PSS has an effect on PEC.
H_4: PSS has an effect on resilience.
H_5: PSS has an effect on religiosity.
H_6: PSS with resilience mediation has an effect on PEC.
H_7: PSS with religiosity mediation has an effect on PEC.

The general hypothesis for each test was as follows:

H_0: There is no significant effect.
H_1: There is a significant effect.

Testing Criteria

The testing criteria was as follows: 1) Reject H_0 if t-value ≥ t-table or t-value ≤ - t-table. 2) Accept H_0 if t-value < t-table or t-value ≥ - t-table

With a significance level of .05 (5%), the t-table is 1.96.

The following sections discuss the hypothesis test for each variable:

1. Resilience has an effect on PEC.

The result shows a path coefficient of .15, with a t-value of 2.28. The path coefficient value shows a unidirectional relationship between resilience and PEC as it is positive (.15 > 0). The positive value indicates that if resilience increases, PEC will increase, and vice versa.

The t-table value with a significance level of .05 is ±1.96, so the t-value (2.28) > t-table (1.96). Therefore, the coefficient is significant. H_{01} is rejected, and H_1 accepted, which means that resilience has a significant effect on PEC.

Table 3

Evaluation of Goodness of Fit Criteria

Criterion	Cut-off Value	Research Result	Conclusion
GFI	≥ .9	.96	Good fit
RMR	≤ .05	.049	Good fit
RMSEA	≤ .08	.00	Good fit
NNFI	≥ .9	1.01	Good fit
NFI	≥ .9	.98	Good fit
AGFI	≥ .9	.95	Good fit
RFI	≥ .9	.97	Good fit
IFI	≥ .9	1.01	Good fit
CFI	≥ .9	1.00	Good fit
PGFI	0 – 1	.73	Good fit
CMIN/df	< 5,0	.732	Good fit
PNFI	0 – 1	.83	Good fit

2. Religiosity has an effect on PEC.

Statistical Hypothesis

The result shows a path coefficient of 0.20 with a t-value of 2.64. This path coefficient value shows a unidirectional relationship between religiosity and PEC as it is positive (.20 > 0). This means that if religiosity increases, PEC will increase, and vice versa.

The t-table value with a significance level of 0.05 is ±1.96, so the t-value (2.64) > t-table (-1.96). Therefore, the coefficient is significant; H_{02} is rejected, and H_2 is accepted, meaning that religiosity has a significant effect on PEC.

3. PSS has an effect on PEC.

The result shows a path coefficient of -.26 with a t-value of -3.03. The path coefficient value shows a non-unidirectional relationship between PSS and PEC as it is positive (-.26 < 0). This means that if PSS increases, PEC will decrease, and vice versa.

The t-table value with a significance level of 0.05 is ±1.96, so the t-value (-3.03) < -t-table (1.96). The coefficient is significant, so H_3 is rejected, and H_3 is accepted, meaning that PSS has a significant effect on PEC.

4. PSS has an effect on resilience.

The result shows a path coefficient of -.33, with a t-value of -4.58. The path coefficient value shows a non-unidirectional relationship between PSS and resilience as it is negative (-.33<0). This indicates that if PSS increases, resilience will decrease, and vice versa. The t-table value with a significance level of 0.05 is ±1.96, so the t-value (-4.58) < -t-table (1.96). Therefore, the coefficient is significant. H_{04} is rejected, and H_4 is accepted, meaning that PSS significantly influences resilience.

5. PSS has an effect on religiosity.

The result shows that a path coefficient of -0.43 was obtained, with a t-value = -4.58. The path coefficient value shows a non-unidirectional relationship between PSS and religiosity as it is negative (-.43<0). This means that if PSS increases, religiosity will decrease, and vice versa. The t-table value with a significance level of .05 is ±1.96, so the t-value (-5.21) < -t-table (1.96). Therefore, the coefficient is significant; H_{05} is rejected and H_5 is accepted, meaning that PSS significantly influences religiosity.

6. PSS with resilience mediation has an effect on PEC.

The Sobel test was conducted to assess whether the PSS variable through religiosity mediation had an effect on PEC. By using the online Sobel test calculator, results were obtained as shown in Table 4.

The PSS path coefficient value for religiosity is -.430, with a standard error of .083. The coefficient value of the religiosity path to PEC is .200, with a standard error of .076. As shown in Table 4, the t-value is -2.346. Because the t-value (-2.346) < -t-table (-1.96), H_{06} is rejected, and H_6 is accepted, indicating that PSS with religiosity mediation has an influence on PEC.

Table 4

Mediation Test

Mediation Model	Sobel Test
Parenting Stress, Religiosity, Parent Emotional Competence	-2.346
Parenting Stress, Resilience, Parent Emotional Competence	-2.017

Note: *p < .05

7. PSS with resilience mediation has an effect on PEC.

The Sobel test was conducted to assess whether the PSS variable mediated by resilience had an effect on PEC, using the online Sobel test calculator, as shown Table 4.

The PSS path coefficient for resilience is -.330, with a standard error of .071, while the resilience path coefficient value for PEC is .150, with a standard error of 0.067. As shown in Table 4, the t-value is -2.017. Because the t-value (-2.017) < -t-table (-1.96), H_{07} is rejected, and H_7 is accepted, meaning that PSS with the mediation of resilience has an influence on PEC. Table 5 shows a summary of the direct and indirect effects based on the output of Lisrel.

8. CFA Multiple Groups and Testing for Invariance

To test scale invariance, MGCFA (multigroup confirmatory factor analysis) was used in three groups of subjects, namely the parents of (1) children with ASD and/or ADHD; (2) children with Down's syndrome/MR; and (3) children with physical disabilities. The differences in Chi-square and other global fit measures between the models was then checked. From the processing results in the multiple group analysis menu, AMOS will create four new models, an unconstrained model; a model with factor load restrictions (measurement weights); a model with covariance restrictions (structural covariances); and a model with residual value restrictions (measurement residuals). These can be seen in the displayed analysis output table, where the four models have their own model fit values.

To test invariance, the unconstrained model is then compared with the other three models. The method calculates the difference in the chi-square and CFI values of the three models with the baseline model. Tables 6, 7, 8 and 9 show the baseline model fit test results for the four scales.

Table 5

Summary of Direct and Indirect Effects

Relation	Direct Effect		Indirect Effect through PEC		TOTAL	
	Path Coefficient	t-value	Path Coefficient	t-value	Path Coefficient	t-value
Resilience-PEC	.15	2.28	-	-	-	-
Religiosity-PEC	.20	2.64	-	-	-	-
PSS-PEC	-.26	-3.03	-.14	-3.21	-.39	-5.29
PSS- Resilience	-.33	-4.58	-	-	-.33	-4.58
PSS- Religiosity	-.43	-5.21	-	-	-.43	-5.21

Table 6

Fit Values of Baseline Model and Restriction Model on PSS Scale

Model	CMIN/df	NFI	RFI	IFI	CFI	RMSEA
Unconstrained	2.607	.961	.983	.964	.981	.056
Measurement weights	4.487	.900	.902	.938	.977	.071
Structural covariances	4.849	.910	.931	.916	.989	.069
Measurement residuals	3.862	.998	.965	.989	.978	.079

Table 7

Fit Value of Baseline Model and Constraint Model on PEC Scale

Model	CMIN/df	NFI	RFI	IFI	CFI	RMSEA
Unconstrained	0.998	.911	.971	.951	.978	.044
Measurement weights	1.298	.931	.900	.942	.969	.065
Structural covariances	2.301	.942	.922	.902	.971	.070
Measurement residuals	2.765	.956	.954	.977	.922	.078

Table 8

Goodness-of-Fit Value of the Baseline Model and Restriction Model on the Religiosity Scale

Model	CMIN/df	NFI	RFI	IFI	CFI	RMSEA
Unconstrained	0.909	.918	.954	.955	.927	.070
Measurement weights	2.945	.913	.930	.939	.931	.061
Structural covariances	3,673	.943	.929	.921	.921	.075
Measurement residuals	4,165	.971	.987	.964	.932	.066

Table 9

Goodness-of-Fit Value of the Baseline Model and Constraint Model on the Resilience Scale

Model	CMIN/df	NFI	RFI	IFI	CFI	RMSEA
Unconstrained	1.899	.927	.922	.915	.977	.074
Measurement weights	2.735	.919	.919	.928	.970	.030
Structural covariances	2.924	.964	.928	.953	.972	.044
Measurement residuals	3.111	.939	.941	.962	.986	.059

Table 10

Difference in Values between Models on the PSS Scale

Comparison between Models	Relative Chi-Square Difference (CMIN/df)	CFI Difference
Unconstrained vs Measurement weights	1.880	.004
Unconstrained vs Structural covariances	1.882	.008
Unconstrained vs Measurement residuals	1.255	.003

Note: χ^2 table = 19.876, CMIN difference /df < χ^2 table : there is no difference between groups
CFI difference < 0.01: there is no difference between groups

Table 11

Difference in Values between Models on the PEC Scale

Comparison between Models	Relative Chi-Square Difference (CMIN/df)	CFI Difference
Unconstrained vs Measurement weights	0.291	.009
Unconstrained vs Structural covariances	1.303	.007
Unconstrained vs Measurement residuals	1.767	.004

Notes: χ^2 table = 13.289, CMIN difference /df < χ^2 table: there is no difference between groups
CFI difference < 0.01: there is no difference between groups

Table 12

Difference in Values between Models on the Religiosity Scale

Comparison between Models	Relative Chi-Square Difference (CMIN/df)	CFI Difference
Unconstrained vs Measurement weights	2.036	.004
Unconstrained vs Structural covariances	2.764	.006
Unconstrained vs Measurement residuals	3.256	.005

Note: χ^2 table = 20.118, CMIN difference /df < χ^2 table: there is no difference between groups
CFI Difference < 0.01: there is no difference between groups

Table 13

Difference in Values between Models on the Resilience Scale

Comparison between Models	Relative Chi-Square Difference (CMIN/df)	CFI Difference
Unconstrained vs Measurement weights	0.836	.007
Unconstrained vs Structural covariances	1.025	.005
Unconstrained vs Measurement residuals	1.212	.009

Note: χ^2 table = 15.987, CMIN difference /df < χ^2 table: there is no difference between groups
CFI Difference < 0.01: there is no difference between groups

The calculation results demonstrate that the chi-square value of the difference between models was lower than the chi-square table, which indicates that the null hypothesis is accepted, namely that there is no difference in the model fit value in the models being compared. In addition, Cheung and Rensvold (2002) indicate that a CFI comparison value between two models that is above 0.01 shows a difference in the model fit value. Based on this, it can be concluded that there is no difference between the baseline and factor load limitation models, as the CFI difference value of the two models is less than 0.01, which showed in Tables 10, 11, 12, and 13. This means that there is invariance in the model, or that equality is achieved in the application of each scale in the three groups of subjects. It can be said that the three scales show equivalent model fit in the three groups of subjects, namely parents of 1) children with ASD and/or ADHD; 2) children with Down's syndrome/MR; and 3) children with physical disabilities.

Discussion

The results of the second order confirmatory factor analysis (2nd order CFA) analysis on the parenting stress, religiosity, resilience and emotional competency scales show they could be used for research because they passed the validity and reliability tests. The validity and reliability tests of the parenting stress, resilience and religiosity scales have been conducted by several researchers in Indonesia with various participant communities (Daulay et al., 2020; Nugraha et al., 2021; Primasari et al., 2022), but the emotional competency scale has not been studied.

The researchers used the structural equation modelling (SEM) method to form a correlation model between variables and to measure the correlation or influence of independent variables on dependent ones (Ghozali, 2016). From all the analyses we have conducted regarding the suitability based on all criteria, the results showed good suitability, namely RMSEA = .006; RMR = .049; GFI = .96; CFI, IFI, and NFI = .90. Therefore, the model was shown to be acceptable, and the following analysis was conducted. The results of the research hypothesis test show that the calculation of the effect of resilience on emotional competence obtained a path coefficient value of .15 with a t-count value of 2.28. This path coefficient value shows a unidirectional relation-ship, which means that emotional competence will increase if resilience increases, and vice versa. A significant coefficient, whereby H_{01} is rejected and H_1 is accepted, means that resilience significantly affects emotional competence. Resilience for parents with special needs children is very important. They need to work hard to care for and educate their children. Care for such children, combined with the burden of work and care for their siblings, and other social pressures, require resilient conditions. Resilience formed in individuals will encourage the formation of positive emotional competence (Tugade & Fredrickson, 2004, 2007). According to Darling et al. (2019) high resilience involves characteristics including the ability to perceive the environment positively and be aware of one's abilities, uniqueness and limitations, enabling individuals to understand their own emotions, express them appropriately, and regulate them (Nelis et al., 2011).

For parents of children with special needs, resilience is characterized by the ability to survive all challenges in raising their children, and the setting of goals by planning their future. Consequently, parents will have confidence in their ability to influence the formation of important parental emotional competencies in raising children with special needs, by expressing their emotions appropriately and understanding their children's emotional state. Parents with high resilience and good self-acceptance tend to have lower perceptions of stress (Gavín-Chocano et al., 2024).

The results of the next stage of the analysis regarding the relationship between religiosity and emotional competence meant that H_{02} was rejected and H_2 accepted, indicating that religiosity has a significant effect on emotional competence. According to Huber and Huber (2012), religiosity measures how important religion and its meaning are in an individual's personality, as reflected in its different aspects, namely the existence of individual behavior in religious rituals, both in society and individually, and the feeling of religious experiences that connect oneself with God, thus showing a belief in the existence of God. Strong religiosity can stimulate good social relationships because it is a component of an individual's ability to communicate (Degil & Régnier, 2014), and the ability to communicate is a characteristic of a person's emotional competence. Those who believe in the existence of God and conform to worship rituals will be careful in their social relationships, including through the possession of appropriate emotional expressions and a better understanding of their own and others' emotions

(Paek, 2006). For parents of children with special needs, the belief in God's destiny meaning they have such children, will form sincerity and belief that the child who is blessed is the best, as a means of worship to God. Furthermore, parents will be more patient; understand their child's emotional condition; and express affection with positive emotional expressions, thus stimulating optimal growth and development in their child.

The analysis of the relationship between parenting stress and emotional competence showed that H_{03} was rejected and H_3 accepted, meaning that parenting stress had a significant effect on emotional competence. Such stress in parents of children with special needs will form a negative attitude towards parenting that reflects the emotional condition of the parents. Stress in parenting is natural for parents who have children with special needs, especially ones related to behavioral and communication disorders such as autism (Hayes & Watson, 2013; Hoffman et al., 2009). Characteristics of parenting stress include those inherent in the parents themselves, namely feeling unable to care for their children; feeling isolated with a lack of freedom; and experiencing conflict with partners and declining health conditions, including the emergence of depression (Cachia et al., 2016a, 2016b; Deater-Deckard, 2004). For parents who have children with special needs, another source of parenting stress is the state of the disorder experienced by the child. The more severe the disorder symptoms, the heavier the burden of parenting (Petrongolo, 2014). In addition, low levels of parent-child interaction can cause significant stress. Parents' limited ability to communicate with their children is often a cause of stress. Parents may not be able to understand what children with special needs want and feel (Jose et al., 2017).

Therefore, parenting stress can inhibit the formation of parental emotional competence. The findings of this study demonstrate a unidirectional relationship between parenting stress and resilience (r = - .33), with H_{04} being rejected and H_4 accepted, indicating that parenting stress has a significant effect on resilience. If parenting stress increases, resilience will decrease, and vice versa.

The relationship between parenting stress and religiosity shows a unidirectional relationship as it is negative (r = - .43); H_{05} is rejected and H_5 is accepted, meaning that parenting stress significantly affects religiosity. The value indicates that if parenting stress increases, religiosity will decrease, and vice versa. The results of this study indicate that parenting stress not only inhibits the formation of emotional competence, but also reduces individual resilience and religiosity. Parents who experience excessive stress in raising children with special needs play a dysfunctional role in the parent-child relationship, being unable to understand their child's condition or to provide the best for their children. This situation results in low resilience to stressful situations in raising their children and the inability to recover (Armstrong et al., 2005). In addition, stress in raising children with special needs can also result in low religiosity (Valiente-Barroso & Lombraña-Ruíz, 2014). Parents who are stressed are unable to interpret and appreciate their responsibility as parents, meaning that gratitude for and understanding of religion are not formed.

Based on the study analysis, H_{06} was rejected and H_6 accepted. This indicates that parenting stress mediated by religiosity affects emotional competence. In addition, H_{07} was rejected and H_7 accepted, meaning that parenting stress mediated by resilience affects emotional competence. The study results indicate that parenting stress will be reduced, as will be inhibition of the formation of emotional competence, if parents of children with special needs have high resilience and religiosity. Parents' resilience to the burden of caring for such children, and their belief in God's destiny regarding their children, do not inhibit the formation of their emotional competence. It is important for parents, especially those of children with special needs, to

manage and handle parenting stress appropriately (Craig et al., 2016). This should be accompanied by high resilience (Becvar, 2013) and religiosity (Zimmer et al., 2016), allowing high emotional competence to emerge (Nelis et al., 2011).

The researchers conducted additional analysis to observe the comparison of the model fit test in terms of group differences, namely for parents of 1) children with ASD and/or ADHD; 2) those with Down's syndrome/MR; and 3) children with physical disabilities, using the MGCFA (multi-group confirmatory factor analysis) test. The results showed no difference in the CFA model of each scale, namely parenting stress (PSS), emotional competence (PEC), religiosity, and resilience, with the fit of the CFA calculation model of the scale in the three groups of subjects also relatively similar. This shows that the scale used was in line with the conditions of parents of children with special needs of any type; parents of children with ASD and/or ADHD; of children with Down's syndrome/MR; and those with physical disabilities, so no further difference tests were. Such a situation can be referred to as strong measurement invariance, which is the ideal stage for a test (T. A. Brown, 2015).

Based on the study results, the theoretical contributions generated strengthen the understanding of the relationship between parenting stress and emotional competence in the context of parents of children with special needs. The finding that resilience and religiosity can act as mediators enriches the theoretical framework in developmental psychology and family psychology, especially in explaining the mechanism of how psychological and spiritual factors can reduce the negative impact of stress on emotional management abilities. This shows that emotional competence is not only influenced by the level of stress experienced, but also by the individual's capacity to adapt positively (resilience) and by attachment to spiritual values (religiosity), which can simultaneously reduce parenting stress and increase emotional competence. With regard to practice and policy, the findings provide a strong basis for psychosocial interventions directed at parents of children with special needs. Support programs should not only focus on reducing parenting stress, but also actively build resilience and strengthen aspects of religiosity as internal resources. The government, via National Population and Family Planning Board (BKKBN - *Badan Kependudukan dan Keluarga Berencana Nasional*), educational institutions, and other social service organizations, can develop policies or training modules that integrate resilience training and strengthen religiosity as part of a holistic approach to assisting families of children with special needs. Such a strategy can improve parents' emotional competence in facing challenges, which will ultimately have a positive impact on the family's well-being and the child's development.

The limitation of this study is in distributing the scale through google form, where the distribution of questionnaires online may not be optimal in describing the actual condition of the subject, even so, the researcher minimizes this limitation by reminding all participants to fill in the scale according to the condition of each participant. In addition, this study only involved three categories of children with special needs, which may not be able to describe the category of other children with special needs broadly.

Conclusion

The result of the study was a model of the emotional competence of parents with children with special needs. The research findings relate to various influencing factors in the establishment of emotional competence, namely parenting stress, religiosity and resilience.

The results show that parenting stress affects emotional competence and significantly influences resilience and religiosity. Furthermore, religiosity

and resilience affect emotional competence. However, resilience and religiosity do not affect each other. In other words, these are mediator variables that strengthen the negative relationship between parenting stress and emotional competence.[]

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Author Contribution Statement

Dinie Ratri Desiningrum: Conceptualization; Data Curation; Formal Analysis; Funding Acquisition; Investigation; Methodology; Resources; Validation; Writing Original Draft. **Donna Hermawati:** Conceptualization; Data Curation; Formal Analysis. **Maman Somantri:** Methodology; Project Administration; Validation. **Chamilul Hikam Al Karim:** Formal Analysis; Visualization; Writing, Review & Editing.

References

Alibekova, R., Kai Chan, C., Crape, B., Kadyrzhanuly, K., Gusmanov, A., An, S., Bulekbayeva, S., Akhmetzhanova, Z., Ainabekova, A., Yerubayev, Z., Yessimkulova, F., Bekisheva, A., Ospanova, Z., & Rakhimova, M. (2022). Stress, anxiety and depression in parents of children with autism spectrum disorders in Kazakhstan: prevalence and associated factors. *Global Mental Health*, *9*, 472–482. https://doi.org/10.1017/gmh.2022.51

Armstrong, M. I., Birnie-Lefcovitch, S., & Ungar, M. T. (2005). Pathways between social support, family well being, quality of parenting, and child resilience: What we know. *Journal of Child and Family Studies*, *14*(2), 269–281. https://doi.org/10.1007/s10826-005-5054-4

Asparouhov, T., & Muthén, B. (2014). Multiple-group factor analysis alignment. *Structural Equation Modeling: A Multidisciplinary Journal*, *21*(4), 495–508. https://doi.org/10.1080/10705511.2014.919210

Becvar, D. S. (2013). Family resilience relative to mental health challenges. In *Handbook of Family Resilience* (pp. 425–439). Springer New York. https://doi.org/10.1007/978-1-4614-3917-2_24

Benson, P. R. (2006). The impact of child symptom severity on depressed mood among parents of children with ASD: The mediating role of stress proliferation. *Journal of Autism and Developmental Disorders*, *36*(5), 685–695. https://doi.org/10.1007/s10803-006-0112-3

Benson, P. R. (2010). Coping, distress, and well-being in mothers of children with autism. *Research in Autism Spectrum Disorders*, *4*(2), 217–228. https://doi.org/10.1016/j.rasd.2009.09.008

Brasseur, S., Grégoire, J., Bourdu, R., & Mikolajczak, M. (2013). The Profile of Emotional Competence (PEC): Development and validation of a self-reported measure that fits dimensions of emotional competence theory. *PLoS ONE*, *8*(5), e62635. https://doi.org/10.1371/journal.pone.0062635

Brown, G. T. L., Harris, L. R., O'Quin, C., & Lane, K. E. (2017). Using multi-group confirmatory factor analysis to evaluate cross-cultural research: identifying and understanding non-invariance. *International Journal of Research & Method in Education*, *40*(1), 66–90. https://doi.org/10.1080/1743727X.2015.1070823

Brown, T. A. (2015). *Confirmatory factor analysis for applied research*. Guilford Press.

Cachia, R. L., Anderson, A., & Moore, D. W. (2016a). Mindfulness, stress and well-being in parents of children with Autism Spectrum Disorder: A systematic review. *Journal of Child and Family Studies*, *25*(1), 1–14. https://doi.org/10.1007/s10826-015-0193-8

Cachia, R. L., Anderson, A., & Moore, D. W. (2016b). Mindfulness in individuals with autism spectrum disorder: A systematic review and narrative analysis. *Review Journal of Autism and Developmental Disorders*, *3*(2), 165–178. https://doi.org/10.1007/s40489-016-0074-0

Castillo, W. C., Onasanya, O., DosReis, S., Hogans, B., & Reeves, G. (2022). Caregiver burden in caregivers of children with special health care needs and association with chronic pain. *Medical Care*, *60*(5), 368–374. https://doi.org/10.1097/MLR.0000000000001702

Chan, K. K. S., & Lam, C. B. (2016). Parental maltreatment of children with autism spectrum disorder: A developmental-ecological analysis. *Research in Autism Spectrum Disorders*, *32*, 106–114. https://doi.org/10.1016/j.rasd.2016.09.006

Cheatham, K. L., & Fernando, D. M. (2022). Family resilience and parental stress in families of children with autism. *The Family Journal*, *30*(3), 419–426. https://doi.org/10.1177/10664807211052494

Cheung, G. W., & Rensvold, R. B. (2002). Evaluating goodness-of-fit indexes for testing measurement invariance. *Structural Equation Modeling: A Multidisciplinary Journal*, *9*(2), 233–255. https://doi.org/10.1207/S15328007SEM0902_5

Craig, F., Operto, F. F., De Giacomo, A., Margari, L., Frolli, A., Conson, M., Ivagnes, S., Monaco, M., & Margari, F. (2016). Parenting stress among parents of children with Neurodevelopmental Disorders. *Psychiatry Research*, *242*, 121–129. https://doi.org/10.1016/j.psychres.2016.05.016

Cripe, C. T. (2013). *Family resilience, parental resilience and stress mediation families with autistic children [Ph.D thesis]*. Northcentral University Arizona.

Da Paz, N. S., Wallander, J. L., & Tiemensma, J. (2018). Effects of written disclosure on psychophysiological stress among parents of children with autism: A randomized controlled pilot study. *Research in Autism Spectrum Disorders*, *53*, 7–17. https://doi.org/10.1016/j.rasd.2018.05.007

Darling, K., Todd, M., & Seok, D. (2019). *Resilience and conscious discipline*. Child Trends. https://consciousdiscipline.s3.amazonaws.com/Research/Resilience-and-Conscious-Discipline-Research-Paper.pdf

Das, S., Das, B., Nath, K., Dutta, A., Bora, P., & Hazarika, M. (2017). Impact of stress, coping, social support, and resilience of families having children with autism: A North East India-based study. *Asian Journal of Psychiatry*, *28*, 133–139. https://doi.org/10.1016/j.ajp.2017.03.040

Daulay, N., Darmayanti, N., Harahap, A. C. P., Wahyuni, S., Mirza, R., Dewi, S. S., Hardjo, S., Indrawan, Y. F., Aisyah, S., Harahap, D. P., & Munisa, M. (2022). Religiosity as moderator of stress and well-being among Muslim students during the pandemic in Indonesia. *Islamic Guidance and Counseling Journal*, *5*(2), 88–103. https://doi.org/10.25217/igcj.v5i2.2696

Daulay, N., Ramdhani, N., & Hadjam, N. R. (2020). Validity and reliability of parenting stress construct among mothers of children with Autistic Spectrum Disorder. *Jurnal Psikologi*, *47*(1), 1. https://doi.org/10.22146/jpsi.43744

Deater-Deckard, K. (2004). *Parenting stress*. Yale University Press. https://doi.org/10.12987/yale/9780300103939.001.0001

Degil, I. M., & Régnier, J.-C. (2014). The content of spiritual and religious component of the communicative competence. *Procedia - Social and Behavioral Sciences*, *154*, 193–198. https://doi.org/10.1016/j.sbspro.2014.10.134

Desiningrum, D. R. (2016). *Psikologi anak berkebutuhan khusus*. Psikosain.

Desiningrum, D. R., Hermawati, D., Somantri, M., Indriana, Y., & Rusydana, A. (2023). Compassionate love parenting training to reduce stress in caregivers of children with special needs: An experimental study. *Psikohumaniora: Jurnal Penelitian Psikologi*, *8*(1), 69–86. https://doi.org/10.21580/pjpp.v8i1.14931

Dieleman, L. M., Moyson, T., De Pauw, S. S. W., Prinzie, P., & Soenens, B. (2018). Parents' need-related experiences and behaviors when raising a child with Autism Spectrum Disorder. *Journal of Pediatric Nursing*, *42*, e26–e37. https://doi.org/10.1016/j.pedn.2018.06.005

Donnelly, L. J. (2015). *Parent-child interaction in children with autism spectrum disorder who vary in symptom severity and level of functioning [Ph.D thesis]*. Columbia University.

Etournaud, A. (2017). *Parents of children with autism spectrum disorder: Investigation into best practice intervention [Doctoral thesis]*. Bond University.

Fabricatore, A. N., Handal, P. J., Rubio, D. M., & Gilner, F. H. (2004). Stress, religion, and mental health: Religious coping in mediating and moderating roles. *International Journal for the Psychology of Religion*, *14*(2), 91–108. https://doi.org/10.1207/s15327582ijpr1402_2

Fernandes, J. B., Fernandes, S. B., Almeida, A. S., & Cunningham, R. C. (2021). Barriers to family resilience in caregivers of people who have Schizophrenia. *Journal of Nursing Scholarship*, *53*(4), 393–399. https://doi.org/10.1111/jnu.12651

Gavín-Chocano, Ó., García-Martínez, I., Torres-Luque, V., & Checa-Domene, L. (2024). Resilient moderating effect between stress and life satisfaction of mothers and fathers with children with developmental disorders who present temporary or permanent needs. *European Journal of Investigation in Health, Psychology and Education*, *14*(3), 474–487. https://doi.org/10.3390/ejihpe14030032

Ghozali, I. (2016). *Aplikasi analisis multivariete dengan program IBM SPSS 23* (8th ed.). Undip Press.

Goeke-Morey, M. C., & Cummings, E. M. (2017). Religiosity and parenting: Recent directions in process-oriented research. *Current Opinion in Psychology*, *15*, 7–12. https://doi.org/10.1016/j.copsyc.2017.02.006

Greenlee, J. L., Winter, M. A., & Diehl, J. J. (2018). Family level processes associated with outcomes for individuals with autism spectrum disorder: A scoping review. *Research in Autism Spectrum Disorders*, *53*, 41–52. https://doi.org/10.1016/j.rasd.2018.06.002

Hartini, S., Simanjuntak, S. R., & Sutomo, R. (2021). Factors correlating with parenting stress among mothers of children with Autistic Spectrum Disorder (ASD). *Enfermería Clínica*, *31*, 505–510. https://doi.org/10.1016/j.enfcli.2020.10.042

Hayes, S. A., & Watson, S. L. (2013). The impact of parenting stress: A meta-analysis of studies comparing the experience of parenting stress in parents of children with and without Autism Spectrum Disorder. *Journal of Autism and Developmental Disorders*, *43*(3), 629–642. https://doi.org/10.1007/s10803-012-1604-y

Heward, W. L., & Orlansky, M. D. (1988). *Exceptional children: An Introductory survey of special education*. Merrill Publishing Company.

Hoffman, C. D., Sweeney, D. P., Hodge, D., Lopez-Wagner, M. C., & Looney, L. (2009). Parenting stress and closeness: Mothers of typically developing children and mothers of children with autism. *Focus on Autism and Other Developmental Disabilities*, *24*(3), 178–187. https://doi.org/10.1177/1088357609338715

Huber, S., & Huber, O. W. (2012). The Centrality of Religiosity Scale (CRS). *Religions*, *3*(3), 710–724. https://doi.org/10.3390/rel3030710

International Test Commission. (2018). ITC Guidelines for Translating and Adapting Tests (Second Edition). *International Journal of Testing*, *18*(2), 101–134. https://doi.org/10.1080/15305058.2017.1398166

Jose, A., Gupta, S., Gulati, S., & Sapra, S. (2017). Prevalence of depression in mothers of children having ASD. *Current Medicine Research and Practice*, *7*(1), 11–15. https://doi.org/10.1016/j.cmrp.2016.12.003

Kirk, S. A., Gallagher, J. J., & Coleman, M. R. (2014). *Educating exceptional children*. Cengage Learning. https://doi.org/https://doi.org/978-0-357-62523-1

Lloyd, C. E. M., & Reid, G. (2022). Perceived God support as a mediator of the relationship between religiosity and psychological distress. *Mental Health, Religion & Culture*, *25*(7), 696–711. https://doi.org/10.1080/13674676.2022.2116633

Mann, A. R. (2013). *The experiences of mothers of children with autism in jamaica: An exploratory study of their journey [Ph.D thesis]*. University of South Florida.

Martínez-González, R.-A., Rodríguez-Ruiz, B., Álvarez-Blanco, L., & Becedóniz-Vázquez, C. (2016). Evidence in promoting positive parenting through the program-guide to develop emotional competences. *Psychosocial Intervention*, *25*(2), 111–117. https://doi.org/10.1016/j.psi.2016.04.001

Moreira, H., Gouveia, M. J., Carona, C., Silva, N., & Canavarro, M. C. (2015). Maternal attachment and children's quality of life: The mediating role of self-compassion and parenting stress. *Journal of Child and Family Studies*, *24*(8), 2332–2344. https://doi.org/10.1007/s10826-014-0036-z

Msiska, G., Smith, P., Fawcett, T., & Nyasulu, B. M. (2014). Emotional labour and compassionate care: What's the relationship? *Nurse Education Today*, *34*(9), 1246–1252. https://doi.org/10.1016/j.nedt.2014.03.002

Muñiz, J., Elosua, P., & Hambleton, R. (2013). Directrices para la traducción y adaptación de los tests: Segunda edición. *Psicothema*, *2*(25), 151–157. https://doi.org/10.7334/psicothema2013.24

Nelis, D., Kotsou, I., Quoidbach, J., Hansenne, M., Weytens, F., Dupuis, P., & Mikolajczak, M. (2011). Increasing emotional competence improves psychological and physical well-being, social relationships, and employability. *Emotion*, *11*(2), 354–366. https://doi.org/10.1037/a0021554

Nugraha, S., Poerwandari, E. K., & Utoyo, D. B. (2021). Confirmatory analysis of the Indonesian version of the Centrality Religiosity Scale. *Mimbar: Jurnal Sosial Dan Pembangunan*, *37*(2). https://doi.org/10.29313/mimbar.v37i2.8755

Osborne, L. A., McHugh, L., Saunders, J., & Reed, P. (2008). The effect of parenting behaviors on subsequent child behavior problems in autistic spectrum conditions. *Research in Autism Spectrum Disorders*, *2*(2), 249–263. https://doi.org/10.1016/j.rasd.2007.06.004

Ozturk, Y., Riccadonna, S., & Venuti, P. (2014). Parenting dimensions in mothers and fathers of children with autism spectrum disorders. *Research in Autism Spectrum Disorders*, *8*(10), 1295–1306. https://doi.org/10.1016/j.rasd.2014.07.001

Paek, E. (2006). Religiosity and perceived emotional intelligence among Christians. *Personality and Individual Differences*, *41*(3), 479–490. https://doi.org/10.1016/j.paid.2006.01.016

Parsons, J. P. (2011). Special needs. In S. Goldstein & J. A. Naglieri (Eds.), *Encyclopedia of Child Behavior and Development* (pp. 1422–1423). Springer US. https://doi.org/10.1007/978-0-387-79061-9_2755

Petrongolo, M. (2014). *Stress in mothers of newly diagnosed children with autism spectrum disorders: Barriers to care, use of support services, and child behavior [Doctoral dissertation]*. Philadelphia College of Osteopathic Medicine.

Pottie, C. G., Cohen, J., & Ingram, K. M. (2009). Parenting a child with autism: Contextual factors associated with enhanced daily parental mood. *Journal of Pediatric Psychology*, *34*(4), 419–429. https://doi.org/10.1093/jpepsy/jsn094

Primasari, I., Hoeboer, C. M., Bakker, A., & Olff, M. (2022). Validation of the Indonesian resilience evaluation scale in an undergraduate student population. *BMC Public Health*, *22*(1), 2410. https://doi.org/10.1186/s12889-022-14769-3

Reivich, K., & Shatté, A. (2002). *The resilience factor: 7 essential skills for overcoming life's inevitable obstacles*. Broadway Books.

Reutter, K. K., & Bigatti, S. M. (2014). Religiosity and spirituality as resiliency resources: Moderation, mediation, or moderated mediation? *Journal for the Scientific Study of Religion*, *53*(1), 56–72. https://doi.org/10.1111/jssr.12081

Russell, S., & McCloskey, C. R. (2016). Parent perceptions of care received by children with an autism spectrum disorder. *Journal of Pediatric Nursing*, *31*(1), 21–31. https://doi.org/10.1016/j.pedn.2015.11.002

Saarni, C., Campos, J. J., Camras, L. A., & Witherington, D. (2007). Emotional development: Action, communication, and understanding. In *Handbook of Child Psychology* (5th Edn, Vol. 3). Wiley. https://doi.org/10.1002/9780470147658.chpsy0305

Sallim, A. Bin, Sayampanathan, A. A., Cuttilan, A., & Chun-Man Ho, R. (2015). Prevalence of mental health disorders among caregivers of patients with alzheimer disease. *Journal of the American Medical Directors Association*, *16*(12), 1034–1041. https://doi.org/10.1016/j.jamda.2015.09.007

Sarrionandia, A., Ramos-Díaz, E., & Fernández-Lasarte, O. (2018). Resilience as a mediator of emotional intelligence and perceived stress: A cross-country study. *Frontiers in Psychology*, *9*, 2653. https://doi.org/10.3389/fpsyg.2018.02653

Schraeder, B. D. (1995). Children with disabilities. *Journal of Pediatric Nursing*, *10*(3), 166–172. https://doi.org/10.1016/S0882-5963(05)80079-X

Stearns, M., & McKinney, C. (2020). Connection between parent–child religiosity: Moderated mediation by perceived maternal and paternal warmth and overprotection and emerging adult gender. *Review of Religious Research*, *62*(1), 153–171. https://doi.org/10.1007/s13644-020-00404-3

Tugade, M. M., & Fredrickson, B. L. (2004). Resilient individuals use positive emotions to bounce back from negative emotional experiences. *Journal of Personality and Social Psychology*, *86*(2), 320–333. https://doi.org/10.1037/0022-3514.86.2.320

Tugade, M. M., & Fredrickson, B. L. (2007). Regulation of positive emotions: Emotion regulation strategies that promote resilience. *Journal of Happiness Studies*, *8*(3), 311–333. https://doi.org/10.1007/s10902-006-9015-4

Ulofoshio, J. I. (2017). *Lived experiences of mothers raising children with autism spectrum disorder in Nigeria [Doctoral thesis]*. Walden University.

Valiente-Barroso, C., & Lombraña-Ruíz, R. (2014). Comprehensive wellbeing and variables linked to religiosity in mothers with children who died. *Procedia - Social and Behavioral Sciences*, *132*, 486–491. https://doi.org/10.1016/j.sbspro.2014.04.341

Volling, B. L., Kolak, A. M., & Kennedy, D. E. (2009). Empathy and compassionate love in early childhood: Development and family influence. In *The science of compassionate love* (pp. 159–200). Wiley-Blackwell. https://doi.org/10.1002/9781444303070.ch6

Walter, S. M., & Smith, M. J. (2016). Mothering a child with autism. *Archives of Psychiatric Nursing*, *30*(5), 600–601. https://doi.org/10.1016/j.apnu.2016.01.016

WHO. (n.d.). *Disability*. World Health Organization. https://www.who.int/health-topics/disability#tab=tab_1

Widhiarso, W. (2011). *Berkenalan dengan analisis faktor multi grup*. http://widhiarso.staff.ugm.ac.id/wp/wp-content/uploads/Berkenalan-dengan-Analisis-Faktor-Multi-Grup.pdf

Wijanto, S. H. (2015). *Structural Equation Modeling dengan Lisrel 8.8: Konsep dan tutorial*. Graha Ilmu.

Wilks, S. E., & Croom, B. (2008). Perceived stress and resilience in Alzheimer's disease caregivers: Testing moderation and mediation models of social support. *Aging & Mental Health*, *12*(3), 357–365. https://doi.org/10.1080/13607860801933323

Zhang, X., Xie, J., Wu, W., Cao, L., Jiang, Z., Li, Z., & Li, Y. (2024). The mediation effect of mental resilience between stress and coping style among parents of children with cochlear implants: Cross-sectional study. *Journal of Pediatric Nursing*, *74*, 1–9. https://doi.org/10.1016/j.pedn.2023.10.042

Zimmer, Z., Jagger, C., Chiu, C.-T., Ofstedal, M. B., Rojo, F., & Saito, Y. (2016). Spirituality, religiosity, aging and health in global perspective: A review. *SSM - Population Health*, *2*, 373–381. https://doi.org/10.1016/j.ssmph.2016.04.009