

Factors Related to Resilience in Indonesian Families with Autism

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Abstract

This research examines plausible factors contributing to resilience among parents of children with autism in Indonesia. Using a cross-sectional design, 92 Indonesian parents of children with autism completed questionnaires assessing family resilience, sociodemographic characteristics, and emotion regulation. For familial resilience, Walsh's Family Resilience Questionnaire (WALSH) was used, while for emotion regulation, Garnefski's Cognitive Emotion Regulation Questionnaire (CERQ) was utilized. Multiple linear and logistic regression analyses showed that emotion regulation significantly predicts familial resilience. Sociodemographic factors, such as income, education, marital status, and the number of children in the household, were not statistically significant to familial resilience. A secondary analysis revealed that adaptive strategies, including positive reappraisal and refocusing on planning, were significant predictors of familial resilience. These insights highlight the need for culturally sensitive, emotion regulation-based interventions to support families affected by autism. Future research should explore longitudinal and qualitative methods to gain a more in-depth understanding of how resilience develops over time.

Introduction

Autism is a neurodevelopmental condition characterized by impaired social communication and interaction, as well as the tendency to exhibit restricted behaviour and interests. It is known that 1 in 36 children aged eight years in the US are diagnosed with autism (Maenner et al., 2023). Autistic characteristics present differently across individuals, with a wide range of symptoms and challenges (Volkmar, 2009; Szatmari et al., 2015). Some children with autism display some extreme behavioural challenges for parents, such as aggression, self-injury, and repetitive behaviours. These challenges can cause chronic stress for parents. Furthermore, in countries with low autism awareness, parents may also struggle to identify symptoms and obtain appropriate services. This situation may negatively impact their mental health.

Severe forms of autism often demand extensive parental care. There is currently no universally effective, evidence-based intervention for all children with autism, especially in developing countries (Lord & Bishop, 2010; Nelson, 2015). Therefore, parents often struggle in navigating the diagnosis and treatment pathways, with healthcare systems frequently lacking adequate support for affected parents. Shifting the focus of autism research to support parental resilience is essential for reducing the pressure and stress faced by parents raising children with autism.

In terms of parental experiences, there are consistent findings across the literature showing that parents of children with autism have higher rates of mood disorders and health issues than parents with typically developing children (Hayes & Watson, 2013; Dabrowska & Pisula, 2010). One plausible cause is that autism behavioural challenges, such as meltdowns, hyperfixation, and outbursts, often occur during daily routines. This may lead to feelings of helplessness in parents (DeGrace, 2004). Furthermore, Hartley et al. (2010) reported that there is

a heightened risk of divorce, unemployment, and financial instability in parents of children with autism in the US. This leads to a decrease in quality of life, affecting both mental and physical health (Estes et al., 2009). A study showed that parental stress often mediates much of the effectiveness of early interventions such as behavioural therapy for children with autism (Lecavalier et al., 2006). Osborne et al. (2008) reported that outcomes of behavioural treatment for children with autism can significantly improve if parents can cope well with the stress of raising children with autism.

Bronfenbrenner's (1977) Ecological Systems Theory (EST) posits that various layers of the environment influence a child's development. Its most influential layer, the microsystem, consists of the child's direct relationships, especially with family members. This means that the beliefs, thoughts, and behaviors of the parents strongly affect how a child develops and responds to treatment for autism. In this context, resilience in parents becomes particularly important, as it can buffer against the stress and challenges associated with raising a child with autism. Berliner and Benard (1995) demonstrate that resilience can develop the capacity for parents to cope with stress adequately, with high levels of resilience correlated with a lower risk for depression and anxiety (Bitsika et al., 2013).

Nowadays, several studies have recently looked into parental resilience as a precursor to autism treatment. *Resilience* is defined under the American Psychological Association (APA) as "the process and outcome of successfully adapting to difficult or challenging life experiences." Becvar (2012) identified two critical components of psychological resilience: positive adaptation and significant adversity. In other words, these components represent an interactive process between vulnerability and protective services. Although initially resilience was thought to be a product of genetics and personality traits, today's research has shifted from a more individualistic

process to an interactive one, comprising intrapersonal characteristics and external environmental factors (Tusaie & Dyer, 2004). On an intrapersonal level, resilience is strongly influenced by emotion regulation (ER), which is the ability to control one's emotional circumstances (Luthar et al., 2000). ER is typically differentiated between adaptive strategies and maladaptive strategies. Mechanisms involving adaptive ER strategies may range from redirecting thoughts to acceptance techniques. As resilience is characterized by mobilizing internal resources to improve adaptive functioning in the face of adversity, it is theorized that ER may directly impact psychological resilience (Gross & John, 2003).

Polizzi (2020) investigated the relationship between psychological resilience and adaptive ER mechanisms, finding that strategies such as cognitive reappraisal and acceptance have been positively associated with resilience in Western countries. As resilience is viewed as a developmental process that progresses through experience, individuals capable of adapting to and accepting adversity over a prolonged period may have a greater ability to maintain their baseline functioning (Hazards, 2012). Two primary adaptive strategies of emotion regulation are hypothesized to influence resilience: acceptance and positive appraisal. As reported in a study by Leving (2012), acceptance is a fundamental component of Acceptance and Commitment Therapy (ACT), which allows individuals to respond more flexibly to adversity. From the perspective of Cognitive Appraisal Theory (Lazarus & Folkman, 1984), it also emphasizes the importance of identifying growth in challenging situations as a means of facilitating emotional recovery and adaptive coping.

An individual's social and economic status, as well as community support, may also influence resilience levels. Boon et al. (2012) found social structure and individual interactions (especially within communities) essential to maintaining resilience. Sun and Stewart's (2007)

Social Ecological Theory suggests that resilience results from interactions within several social systems, including families, communities, and schools. Within the Bronfenbrenner (1977) Developmental Model, macrosystem factors such as religion, governmental policies, and cultural belief systems all carry significant influences on one's expectations and values, which may facilitate the process of resilience (Masten & Obradovic, 2007). Zhao and Fu (2022) investigated how Chinese parents of children with autism develop resilience. They found that building positive relationships with others significantly improved resilience outcomes, demonstrating the protective nature of relationships. The same study highlighted Chinese cultural understanding of mental disorders stagnating mental health for parents of children with autism, as social discrimination and lack of support for impacted children put psychological pressure on parents, compromising adaptive strategies in the long term. Kartini et al. (2018) conducted a literature review on factors associated with parental resilience and stress among parents of children with autism in Southeast Asia. They found six factors that contribute the most to stress, with financial status, social support, parents' understanding of autism, and religiosity being notable factors driving stress.

Besides Zhao and Fu's (2022) and Kartini's (2018) review of parental resilience, little research has been conducted outside White, Educated, Industrialised, Rich, and Democratic (WEIRD) countries. Shorey et al. (2019) found significant parental perspectives and experience differences between WEIRD and non-WEIRD countries. Indonesia presents an opportunity for further research in these contexts, as it is described as the polar opposite of typical WEIRD cultural systems, characterized by collectivistic ideologies, rigorous religious orientations, and strong indigenous roots (Gelman, 2003). Children are often viewed as a source of familial pride and social capital in Indonesian culture (Riany, 2016). Parents with a child with autism may feel

a reduced sense of pride and unmet expectations. Collectivistic cultures tend to expect several forms of social obligations, and the combination with autism's social impairments may result in internalised and externalised stigma toward the family, which may lead to added stress (Yang, 2007). Thus, parents may have increased difficulty in developing resilience and seeking support when societal stigma is prevalent.

Furthermore, in developing countries, there is a limited amount of government support for children in need of assistance, and the current approach is largely reactive rather than proactive, according to Boothby and Stark's (2011) research. The same study also highlighted a significant issue concerning data collection, specifically a lack of communication between Indonesian provinces, which creates obstacles to any potential research. As a result, provincial autonomy leads to inconsistent conceptualisations, which result in unreliable prevalence rates and misinformation. A lack of occupational opportunities for aspiring psychologists and childcare facilities is a common theme across provinces in Indonesia, which may lead to low recruitment and treatment standards (Putra, 2020). As autism is relatively less known within rural areas in Indonesia, most parents do not know how to seek treatment and information regarding their child's condition.

Parents of children with autism face unique challenges that demand resilience. However, there is a lack of research available on the factors that may contribute to resilience among parents of autistic children in Indonesia. Therefore, identifying resilience factors in these parents is crucial and can help clinical professionals to gain more insights. The findings are expected to provide some insight into cross-cultural understanding of factors contributing to resilience among parents residing in non-WEIRD countries. In this study, we hypothesize that emotion regulation is highly correlated with resilience, and that economic status, education, and marital

status of parents will also be correlated with resilience. Furthermore, this study will specifically investigate the relationship between adaptive emotion regulation strategies and parental resilience. Acceptance and positive appraisal are associated with higher resilience.

Method

Participants

Our samples were parents of children with autism residing in Indonesia. They were obtained from the network of the parents' community of autism in Indonesia (www.autismindonesia.org/id/). Invitations to participate were posted through various social media platforms (WhatsApp, Instagram, YouTube). Data for this current master's thesis were part of the larger pilot project "Resilience Factors - Autism - Indonesia", following open science guidelines and pre-registered at the following link: <https://osf.io/9an8q/>. The present study was approved by the Ethics Review Board of the Faculty of Behavioral and Social Sciences at the University of Groningen, project code number PSY-2324-S-0025.

To be eligible for the study, parents of children with autism needed to meet the following criteria: (1) residing in Indonesia, (2) having children under 18 years of age and (3) having children with a formal autism diagnosis from a specialist, psychiatrist or pediatrician. Participants were given a shopping voucher worth €5 (approximately 80,000 IDR) to increase participation.

For this current master's thesis, data were collected from 100 participants. Among 100 participants were 85 mothers and 15 fathers aged 23 to 66 ($M = 38$, $SD = 7$). Of the 100 participants selected for the study, 9% were excluded because they had an autistic child over 18, which contradicted the aforementioned selection criteria. The age of autistic children ranged

from 1 - 17 years ($M = 7$, $SD = 3.3$). The average number of children in a household is 1.69 ($SD = .68$). The duration of marriage ranges between 1 and 24 years ($M = 8$, $SD = 4.4$). Most participants are Muslims (85.7%), followed by Christianity (10%) as the next most frequent religion. The average household income is between 3,500,000 and 5,000,000 IDR, roughly 200 - 300 EUR.

Measures

Family Resilience

Walsh's Family Resilience Questionnaire (WALSH) is designed to measure family resilience using a three-domain operationalisation framework. The WALSH is a 32-item questionnaire that measures three essential components of family resilience: family belief systems, organisational patterns, and communication/problem-solving. The family belief system consists of 1) spirituality, 2) a positive outlook, and 3) shared meaning-making efforts. An example of this component is "We encourage each other and build on our strengths". Organisational patterns consist of 1) economic and social resources, 2) flexibility, and 3) cohesion. "We can rely on the support of friends, neighbours, and our community" is an example of organisational patterns. Finally, communication/problem-solving consists of 1) clarity, 2) problem-solving, and 3) emotional expression. This component comprises statements such as "We focus on our goals and take steps to reach them". Each of the three components contains ten items, all utilising a 5-point Likert scale (1 = rarely, 5 = usually). Cronbach's alpha for reliability of scores in all three domains is .94, indicating excellent internal consistency between items (Zhang, 2022).

Emotion Regulation

The Cognitive Emotion Regulation Questionnaire (CERQ) is a short 18-item questionnaire designed to measure nine concepts of emotion regulation (Catastrophizing, Rumination, Positive refocusing, Planning, Positive reappraisal, Self-blame, Other-blame, Perspective, and Acceptance). Originally a 36-item questionnaire, the current study will utilise the shortened version, validated by Garnefski & Kraaij (2006). Each domain now consists of two items instead of the original three. However, lower than the original 36-item version, reliability and validity from the Principal Component Analysis (PCA) were all in the acceptable range for the CERQ short (Garnefski, 2007). “I think that I have to accept that this has happened”, and “I think I can learn something from this situation” are some examples of CERQ-short items utilised in the context of having an autistic child.

Sociodemographic Questionnaire

The study's independent variables included sociodemographic questionnaires regarding the parent and child. Questions about the child's autism diagnosis, comorbidities, and current ongoing interventions were asked to control for potential mediating variables and third-variable associations. Parental marital status, socioeconomic status, area of residence, and educational level are some of the sociodemographic questionnaire items. These characteristics acted as part of the independent variable for this study. See Appendix 1 for questionnaire item details.

Procedure

Upon approval from the ethics committee, the study commenced by administering a survey. The online survey, conducted using Qualtrics, began with a standard consent form that

informed participants of the incentives they would receive upon completing the study.

Additionally, participants were guaranteed anonymity and confidentiality to ensure privacy and ethical guidelines. Invitations to prospective participants were sent through various social media platforms. Once participants were contacted, links were provided to access the survey.

Our survey consisted of four questionnaires that covered the sociodemographic characteristics of families with the presence of a child with autism. These characteristics investigated underlying factors that may influence familial resilience levels. The specific questionnaires present in our survey include: 1) Parental Sociodemographics, 2) Child Sociodemographics, 3) Walsh's Family Resilience Questionnaire (Walsh, 2016), and 4) Cognitive Emotion Regulation Questionnaire (Garnefski, 2008). For the present study, parental sociodemographics, as well as the WALSH and CERQ-short, will be used for data analysis. The survey consists of 4 blocks to collect data: parental demographics, child demographics, the WALSH, and finally, CERQ-short to conclude the study. All questionnaires were translated into Bahasa Indonesia.

Statistical Analysis

Our independent variables (IV) for this research were sociodemographic variables and emotion regulation, with the dependent variable (DV) being family resilience. Based on previous literature, certain sociodemographic variables were identified as covariates. They are income, marital status, and location of residence.

We intended to identify factors that strongly correlate with resilience using a correlational cross-sectional design using SPSS. This design utilised several statistical methods, including linear regression analysis, ANOVA, and univariate logistic regression analysis. Before

conducting the primary analysis, an assumption check was performed, which involved verifying the linearity, homoscedasticity, independence of errors, normality, and independence of independent variables. Regression analysis will be our primary statistical tool for identifying the factors that contribute significantly to resilience. Two types of regression analysis will be used: 1) treating resilience as a continuous variable (linear regression) and 2) treating resilience as a categorical variable (logistic regression). Specifically for our categorical analysis, WALSH scores > 128 were regarded as having high resilience, and WALSH scores < 128 indicated low resilience (Walsh, 2016).

Results

As part of the data cleaning process, 8 participants (8%) had their results removed because they had an autistic child over 18, which goes against the selection criteria mentioned above. An assumption check was performed for the linear regression analysis, showing that all five assumptions were satisfied, including linearity, independence of errors, normality, independence of independent variables, and homoscedasticity. Linearity and homoscedasticity were inspected using a scatterplot of residuals to identify potential nonlinear relationships. The independence of errors was similarly assessed using the residuals against the fit, aiming for a zero correlation. Using Q-Q plots, normality was checked using observed and expected values, measuring the straightness of the graph. Variance-inflating factors (VIFs) are used to assess the contribution of variables to the standard error, thereby detecting multicollinearity.

Linear Regression Analysis

The primary method of analysis used for this report is multiple regression analysis. Two forms of regression analysis were used, linear regression and univariate logistic regression. Using the generalised linear model function, the multiple correlation coefficient was computed to be $R = 0.47$, indicating a moderate level of prediction of familial resilience, according to Cohen's (1988) guidelines. The coefficient of determination, $R^2 = 0.216$, suggests that our independent variables account for 21.6% of the variability in resilience. The analysis of variance conducted (Table 1) yielded an $F(6, 79) = 3.63$, $p = 0.003$, and $MSE = 261.83$. This result suggests that the regression model is a moderate fit for the data.

Table 1

Analysis of Variance

	SS	df	MS	F	Sig.
Regression	5700	6	950	3.629	0.003
Residual	20684	79	261		
Total	26384	85			

Using the t-tests, emotion regulation (ER) was the only statistically significant independent variable in the analysis. Income, parents living together, parents' education, and the number of children in the household were all statistically insignificant. Furthermore, to better understand the contribution of each variable to the model, semi-partial and partial correlations were computed and squared to show the unique explained variance (see Table 3). ER gives us

$pr_1^2 = 0.44$, which translates to a 44% uniquely explained variance that this variable has on our model fit. All other variables show minimal contribution to the model.

Table 2

Multiple Linear Regression Results of Independent Variables on Resilience

	β	t	p
Intercept		2.03	0.05
Medium Education (vs. High)	-0.07	-0.72	0.48
Together (vs. separated)	0.001	0.01	0.99
Low Income (vs. High)	-0.02	-0.22	0.83
Medium Income (vs. High)	-0.08	-0.70	0.47
Emotion Regulation	0.44	4.41	0.001
Number of children	-0.06	-0.63	0.53

Note: $p > .05$ for nonsignificant variables.

Table 3

Zero-order, semi-partial, and partial correlations

Variable	Zero-order	Partial	Part
Medium Education Level (vs. High)	-0.09	-0.08	-0.07
Living together (vs. Separated)	0.02	0.001	0.001

Low Income (vs. High)	0.021	-0.024	-0.022
Medium Income (vs. High)	-0.11	-0.08	-0.07
Emotion Regulation	0.45	0.45	0.44
Number of Children	-0.06	-0.07	-0.06

Logistic Regression Analysis

Our logistic regression analysis yields similar findings to those of our linear regression analysis. Resilience scores of 128 or above were classified as high resilience, and scores below 128 were indicated as low resilience in our logistic outputs. Scores of one standard deviation above the mean of 108 were used to create a meaningful distinction between high and low resilience. The model included five predictors: ER, living status, income level, education, and number of children. Table 4 provides values of 0.163 (Cox & Snell) and 0.24 (Nagelkerke), indicating that the model explains between 16.3% and 24% of the variance in RES scores. Based on the test of model coefficients, the logistic regression model was statistically significant, yielding $\chi^2(6) = 15.31$, $p = 0.018$, indicating that the predictors were able to distinguish between RES outcomes. Table 6 shows that the only significant predictor in the model was ER. While holding all other variables constant, a one-unit increase in ER was associated with a 1.2 times higher likelihood of being classified as high resilience, $B = 0.15$, $SE = 0.047$, $Wald = 9.47$, $p = 0.002$, $Exp(B) = 1.20$.

Table 4*Binary Logistic Regression Analysis*

Step	-2 Log Likelihood	Cox & Snell R Square	Nagelkerke R Square
1	82.50	0.163	0.240

Table 5*Omnibus Tests of Model Coefficients*

	Chi-square	df	Sig.
Model	15.31	6	0.018

Table 6*Logistic Regression Analysis Results of Independent Variables on RES*

Predictor	B	SE	Wald	df	p	Exp(B)
ER	0.145	0.047	9.47	1	.002	1.16
# of children	0.061	0.382	0.03	1	.873	1.06
Low income (vs. high)	-0.332	0.898	0.14	1	.712	0.72
Middle income (vs. high)	0.436	0.854	0.26	1	.610	1.55
Living Together (vs. separated)	-0.885	1.135	0.61	1	.436	0.41
Medium education (vs. high)	0.415	0.632	0.43	1	.512	1.51

Constant	-11.222	3.442	10.63	1	.001	0.00
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Note: $p > .05$ for nonsignificant variables.

Secondary Analysis

As part of our secondary analysis, a linear regression analysis was performed to measure the five adaptive ER strategies, including acceptance, positive refocus, refocus planning, positive reappraisal, and perspective. As expected, the overall model was found to be statistically significant, $F(5, 86) = 7.05, p < .001$, indicating the predictors in the model explained a significant amount of variance in resilience scores (Table 7). Out of the five independent variables, refocus on planning ($\beta = 0.23, SE = 1.529, t = 2.08, p = .041$) and positive reappraisal ($\beta = 0.25, SE = 1.842, t = 2.06, p = .042$) were statistically significant predictors of resilience scores, meaning greater use of these two strategies is associated with higher resilience (table 8). Acceptance ($p = .096$), positive refocusing ($p = .594$), and putting into perspective ($p = .561$) were not statistically significant to the model.

Table 7

Analysis of Variance of Adaptive Strategies

	SS	df	MS	F	p
Regression	8119.42	5	1623.88	7.05	< .001
Residual	19802.23	86	230.26		
Total	27921.65	91			

Note. SS = Sum of Squares, MS = Mean Square

Table 8*Table of Coefficients of Adaptive Strategies*

	β	t	p
(Constant)		2.63	.010
Acceptance	.193	1.68	.096
Positive Refocusing	.056	0.54	.594
Refocus on Planning	.234	2.08	.041
Positive Reappraisal	.253	2.06	.042
Perspective	-.061	-0.58	.561

Note: $p > .05$ for nonsignificant variables.

Discussion

The present study explored several factors influencing resilience in families with a child who has autism. The study also examined five adaptive emotion regulation strategies and their relationship to resilience. We found a significant relationship between emotion regulation and resilience levels. In contrast, other independent variables we examined, such as the total number of children in the household, parental income, parental education, and whether the parents lived together, were statistically insignificant. Concerning our secondary research question, which investigated adaptive emotion regulation strategies, the results of the multiple regression analysis indicated that only two out of the five strategies were significant. Positive appraisal and refocusing on planning were significant predictors of resilience, while acceptance, positive refocusing, and perspective-taking did not demonstrate statistical significance. Although our hypothesis posited that positive appraisal and acceptance strategies would serve as significant predictors, this conclusion is only partially accurate.

Our research indicates that emotion regulation enables parents to be more resilient. This finding aligns with those from Western societies (Murray, 2003; Singer et al., 2017). Parents who manage their emotions well are more likely to handle challenges successfully. This ability, as indicated by our results, may facilitate a more resilient response to the ongoing challenges associated with autism spectrum disorder. Although our study primarily focuses on the Asian familial context, it confirms specific theoretical underpinnings of resilience. Suzuki et al. (2013) defined parenting resilience as the “process of positive adaptation to the difficulties associated with rearing children with developmental disabilities”. Therefore, the use of adaptation processes, such as emotion regulation strategies, promotes better outcomes in adverse situations that parents may encounter. The presence of behavioural difficulties, outbursts, stigma, and

communication difficulties in the child requires parental perseverance and stress management. The use of such strategies, combined with the avoidance of more destructive non-adaptive emotion regulation strategies, such as self-blame and catastrophizing, leads to more effective management and promotion of coping strategies (Ursu, 2022).

Furthermore, parenting resilience comprises three key components: knowledge of children's characteristics, perceived social support, and a positive perception of parenting (Suzuki et al., 2015). Previous studies have shown that positive perceptions of parenting are associated with the use of positive reappraisal strategies, which are crucial for emotion regulation (Hastings, 2002). Positive reappraisal involves reinterpreting stressful situations to highlight the positive outcomes and strengths that may result from enduring the event. In Indonesian families with a child with developmental disabilities, adaptive appraisal was found to predict parental resilience and ultimately, the quality of life in affected children (Widyawati et al., 2022). Our other significant finding, refocusing on planning, implies active engagement in planning and problem-solving to address present stressors. In Indonesia, where formal support systems are scarce and conceivably stigmatized, the constant use of problem-solving skills is crucial in a context that demands independence. These planning-based strategies may help compensate for weak institutional support. Furthermore, studies have also shown that, outside the familial context, individuals who engage in problem-solving skills report higher levels of psychological resilience (Pottie, 2008).

Our non-significant findings revealed several differences compared to previous research in this field. Parental income, split-parents, and education are often associated with mental health outcomes such as resilience (Broll, 2025). Our findings do not support this claim. Possible reasons point to both potential cultural and methodological factors. The Indonesian collectivistic

qualities may buffer the influence of parental income, education, and split-parents on mental health outcomes (Hidayati, 2011). In Indonesia, strong extended family and community support may help mitigate the effects of low income and low educational attainment, thereby reducing the impact of financial hardships (Asa, 2021). Sharing responsibilities, distributing or sharing money across family households, and providing emotional support are just a few examples of ways Indonesian parents cope with their responsibilities. The capacity to cope helps parents avoid stress, which in turn enhances their resilience (Peer & Hillman, 2014).

Furthermore, informal support systems throughout the country suggest that higher income and education levels do not always guarantee improved access to resources and services. Government services in Indonesia are limited, with only 132 autism centers across 27 cities, leaving nearly 500 cities without any autism services (Hassan, 2020). On the other hand, as our sample is from an autism organization, and children have been diagnosed with autism, most respondents likely have some form of autism support services. This may weaken the ability of income to predict household behavior. Additionally, access to autism resources may enable parents with lower educational attainment and high organizational engagement to achieve outcomes comparable to those of their more highly educated counterparts.

Strong religious communities can also help mitigate any material disadvantages that some families may experience. As 99% of our sample consists of religious families, religious coping may mediate any external effects on familial resilience. This faith-based strategy is associated with increased gratitude and a more positive interpretation of stressful events (Rahmanawati, 2019), as well as enhanced ‘meaning-making’, a core component of Walsh’s model of familial resilience. Additionally, Indonesian religious parents may view their child as a ‘message from God’ or ‘destiny’, and are inclined to accept the situation they have been given

(Widyawati, 2022). This may clarify why acceptance as an adaptive strategy did not emerge as a significant finding in our secondary outputs, as this disposition may already be religiously normative, rendering it ubiquitous in our predominantly religious sample.

Clinicians working with families affected by autism in Asia are likely to benefit from the results of this study. Parent counseling programs, psychoeducational interventions, and other support programs within this context should include modules on emotion regulation strategies, with an emphasis on positive reappraisal and problem-solving techniques. Optimistic reinterpretation of events is a core component of Cognitive Behavioural Therapy (CBT), and the use of cognitive restructuring techniques may be an effective strategy in improving mental health outcomes for affected parents. Acknowledging religious and spiritual beliefs that foster a sense of 'destiny' in the outcome of their child may help reframe autism in a less stigmatizing light. Given the saturation effect of acceptance mentioned earlier, researchers should reframe some strategies of emotion regulation in terms of culturally mediated baseline traits. In other words, acceptance may not be a consciously chosen strategy, but rather a default worldview, instilled upon them since childhood. This raises critical cultural implications regarding mental health processes.

Parents may be encouraged to develop planning strategies for common challenges they may encounter when raising a child with autism. Finally, as theorized, support providers may look into enabling parents to seek help from local communities, extended families, and peer-support group interventions as a means to cope with the stressors involved in raising a child with autism. These low-cost, culturally relevant resources may be especially beneficial in impoverished and under-researched areas within Indonesia. Despite this, a substantial amount of work remains to be done to improve the distribution of autism services across Indonesia.

Possible innovative solutions may include mobile-based interventions that provide emotion regulation training to more remote regions of Indonesia.

Several limitations are present in this study that may impact the generalizability of our results. Since the sample was taken from an online parents' autism community in Indonesia, respondents may be more engaged and proactive in support systems than the typical family. Baseline resilience may be skewed higher than it would be. Similarly, the sample may not be representative of rural and impoverished regions in Indonesia. As this is an online sample, regions without internet access may be underrepresented. According to a report by the Center for Indonesian Policy Studies (CIPS), approximately 25% of the country lacks internet access, and just under 500 cities are without access to autism services.

Furthermore, more than 80% of our respondents are mothers, which limits the generalizability of the results to both parents. Our sample of 92 participants also makes it problematic to analyse subgroup data. A larger sample size is needed to compare levels within education and income, for example. Sociodemographic control variables were not measured, which could have mediated other influential factors. Measuring the severity of the child's autism and whether the parents have access to support services may act as confounding variables in our results. The cross-sectional nature of this study means causal conclusions between resilience and emotion regulation must be explored with caution, even though the literature is clear with the direction of causation (Nakhostin-Khayyat, 2024; Ghazipoor, 2021).

Finally, resilience constructs, such as the WALSH questionnaire, are based on Western frameworks and may not accurately represent how familial resilience manifests in cultures with significantly different values, ideologies, and structures. The nonsignificance of income and education challenges Western assumptions of resilience, and future research may look to

restructure resilience frameworks. For example, Walsh's model of familial resilience emphasizes flexibility and egalitarianism as the hallmark of a positive family environment. Still, collectivistic households often recognize rigid structural duties and hierarchical roles as a valid mechanism for resilience (Yeh, 2004).

Future research should focus on higher and more representative samples to incorporate all regions of Indonesia, especially underserved cities. It may be helpful to replicate this study, but with more child-related variables, such as an autism severity measure, to assess how possible confounding relationships may influence familial resilience. Qualitative and longitudinal studies that examine the lived experiences of resilience and how it evolves in response to changing family circumstances and child development may provide valuable insights into how mental health outcomes change with time. Intervention studies that implement adaptive emotion regulation strategies, such as positive reappraisal in parenting services, may evaluate whether our findings improve familial resilience. More comparative studies could be conducted to compare whether socio-demographic factors and emotion regulation differ between Western and Asian cultures.

The present study suggests that emotion regulation is crucial to familial resilience. In the Indonesian context, building positive reappraisal, problem-solving, and planning skills may be a valuable pathway to improved mental health outcomes for Indonesian parents who have a child with autism. Despite the challenges of autism, the current study contributes to possible improvements for service providers working in parental intervention programs, while providing a critical glimpse into culturally relevant constructs of mental health processes.

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