A New Unidimensional Family Resilience Scale in an Indonesian Context: Development and Psychometric Properties

Muhammad Iqbal[1], Adiyo Roebianto[2], Laila Meiliyandrie Indah Wardani[3]

Fakultas Psikologi, Universitas Paramadina, Indonesia[1]
Fakultas Psikologi dan Pendidikan, Universitas Al Azhar Indonesia, Indonesia[2]
Fakultas Psikologi, Universitas Mercu Buana, Indonesia[3]

adiyo.roebianto@uai.ac.id

Abstract

This study aims to develop a psychological instrument of family resilience using data derived from Indonesian samples based on a five-dimensional resilience scale: physical resilience, psychological resilience, economic resilience, social resilience, and religiosity resilience. Each dimension was measured with five items (25 items in total) on a 4-point Likert scale, ranging from strongly disagree (1) to strongly agree (4). A total of 841 subjects (n = 841) were gathered through purposive sampling and were required to complete the questionnaire. Data were analysed using confirmatory factor analysis (CFA) and Rasch analysis, aimed at generating each item's validity based on the formulated constructs. Results indicated that all item t-values exceeded 1.96 (t > 1.96), and the model's statistical indices satisfied the criteria for unidimensionality and goodness of fit. According to the Rasch analysis, all items demonstrated good fit and a high Cronbach's alpha reliability index. A newly developed family resilience measure for Indonesian populations demonstrates strong construct validity across all dimensions and items, including a unique dimension that recognises the role of religion in family coping. While promising for clinical and research use, further validation and cross-cultural studies are needed to address limitations related to purposive sampling and cultural specificity. These studies should employ longitudinal and cross-cultural designs to enhance generalizability. This will ensure that the instrument provides a robust measure of family resilience for diverse applications. Meanwhile, the limitation of the study is the need to conduct a standardised norming of the instrument.

Keywords: physical resilience, psychological resilience, economic resilience, social resilience, religiosity resilience

Abstrak

Penelitian ini bertujuan untuk mengembangkan instrumen ketahanan keluarga dengan data yang berasal dari partisipan di Indonesia. Instrumen ketahanan keluarga memiliki lima dimensi: ketahanan fisik, ketahanan psikologis, ketahanan ekonomi, ketahanan sosial, dan ketahanan religiusitas. Setiap dimensi diukur dengan lima item (total 25 item) pada skala Likert empat kategori, mulai dari sangat tidak setuju (1) hingga sangat setuju (4). Sebanyak 841 partisipan (n = 841) berpartisipasi dalam penelitian ini. Data dianalisis dengan menggunakan analisis faktor konfirmatori dan analisis rasch, yang bertujuan untuk menghasilkan validitas setiap item berdasarkan konstruk yang dirumuskan. Hasil menunjukkan nilai t pada item lebih dari 1,96 (t > 1,96); dan model tersebut memiliki indeks statistik atau goodness of fit yang memenuhi kriteria ideal untuk unidimensi. Berdasarkan hasil analisis Rasch, seluruh item menunjukkan hasil yang fit dan dengan indeks reliabilitas Cronbach-Alpha yang memuaskan. Instrumen pengukur ketahanan keluarga yang baru dikembangkan untuk populasi Indonesia ini menunjukkan validitas konstruk yang kuat di semua dimensi dan item, termasuk dimensi religiusitas yang unik yang mengakui peran agama dalam mengatasi masalah keluarga. Meskipun menjanjikan untuk penggunaan klinis dan penelitian, validasi lebih lanjut dan studi lintas budaya diperlukan untuk mengatasi keterbatasan yang terkait dengan purposive sampling dan spesifisitas budaya melalui studi longitudinal dan lintas budaya untuk meningkatkan generalisasi. Hal ini akan memastikan bahwa instrumen menyediakan ukuran ketahanan keluarga yang kuat untuk beragam aplikasi. Keterbatasan dari penelitian ini adalah belum dilakukannya standarisasi norma instrumen.

***Kata kunci:** Resiliensi fisik, Resiliensi psikologis, resiliensi ekonomi, resiliensi sosial, resiliensi religiusitas*

Introduction

In recent years, family problems have been the primary concern of many sectors in Indonesia, especially government bodies that have kept a discerning eye on divorce cases, domestic violence, juvenile delinquency, sexual abuse, substance abuse, terrorism, natural disasters, and LGBTQ community dynamics (Iqbal, 2017; Sunarti & Fitriani, 2010; Hestyanti, 2006; Fahrudin et al., 2020). The family is viewed as the essential foundation for the government in tackling community issues, as strong family ties may have a buffering or protective role for vulnerable populations facing adversity. Moreover, there exists a wide array of community problems originating from problematic youth behaviour, and are frequently identified as stemming from troubled families (Shader, 2003) – e.g. parents with troubled relationships or who are not harmonious, divorced families with poor parenting issues, including lack of warmth, or attachment and bonding issues between parents and children (Okina et al., 2024; Sombuling et al., 2022; Risnawati et al., 2021). Although there is considerable debate about this association, a history of family disruptions with lasting effects remains a risk factor for lower resilience. According to Lestari (2012), a family is a household system that has a blood or marriage relationship or provides the implementation of fundamental instrumental functions and powerful functions for its members within a network.

Family resilience is derived from two words: resilience and family. According to Indonesia's Population Development and Prosperous Family Development Law Act 10 Year 1992 (Undang-Undang No. 10 Tahun 1992), the definition of family resilience is a dynamic condition of a family that has tenacity and toughness, containing physical-material issues including lack of warmth, or attachment and bonding issues between parents and children. Although there is considerable debate about this association, a history of family disruptions with lasting effects remains a risk factor for lower resilience.

The concept of family resilience originated from a wave of studies in the 1980s on the functional outcomes of vulnerable children who were able to function competently despite numerous psychological, physical, and environmental limitations or stressors (Hadfield & Ungar, 2018; Walsh, 2004, 2012). The phenomenon where a person can survive and cope with various problems is termed resilience. Resilience is also defined as a process in which there is an interaction between risk and protective factors, including the process in which these protective factors pose risks (Masten, 2018). Wardani and Anwar (2019) also describe resilience as a tendency to be involved and a form of positive coping in adapting to the obstacles faced. Individuals with kind resilience are more likely to create engagement (Wardani & Amaliah, 2020; Wardani & Noviyani, 2020), which in turn helps them achieve success in their lives (Wardani et al., 2020).

A relational perspective on resilience emphasises the crucial role of supportive relationships in fostering positive adaptation to adversity. Earlier theories and research primarily focused on the personal traits and abilities of resilient children and adults who successfully navigated challenging circumstances. The resilience-oriented family approach (Walsh, 2016) aims to identify and engage family members who either play a role in or have the potential to play a role in fostering the well-being and positive development of at-risk youth or vulnerable adults. Even within families facing difficulties, contributions from parents, step-parents, siblings, and other caregivers can provide meaningful support (Ungar, 2004).

The concept of family resilience builds upon family developmental theory and research on family stress, coping, and adaptation, as explored by McCubbin and colleagues (Hawley & DeHaan, 1996; McCubbin & McCubbin, 2013; McCubbin & Patterson, 1983; Patterson, 2002). In clinical practice, Walsh developed a family resilience framework grounded in family systems research, focusing on transactional processes that characterise well-functioning families (Walsh, 1996, 2003, 2016).

From a psychological perspective, the concept of family resilience is grounded in the development of competence-based and strength-oriented family paradigms, which facilitate a comprehensive understanding of how a family displays resilience in the face of adversity. A significant part of this perspective's development and application focuses on how to make the family resilient to disturbances brought about by life changes, as well as enhancing adaptive mechanisms in facing various life crises – by distinguishing between resilience as either a process or a capacity (Patterson, 2004).

Family resilience is a family effort that leads to adaptability and success in facing pressure, both of which can arise in the present and the future. Resilient families can respond positively to these conditions in a way that is typical, context-dependent, and developmentally level-appropriate, considering the interaction between protective and risk factors as well as the family's perspective on the problem (Hawley & DeHaan, 1996). Family resilience is associated with an individual or family's ability to exploit their potential to face life's challenges (Hadfield & Ungar, 2018), including the ability to restore pre-existing family functions in the face of challenges and crises. Family strength (family resilience) is a holistic concept that encompasses the flow of thought within a system, starting from the quality of resilience's resources, i.e., coping strategies. It can also be viewed as a dynamic process within the family, enabling it to adapt positively to hazards both from outside and within the family. Family resilience refers to a family's ability to navigate internal and external threats, obstacles, and disruptions that can lead to conflict and division within the family. It also encompasses the family's resources and attributes that empower members to achieve their goals and aspirations (Oh & Chang, 2014).

Families face disruptions from various sources, including social, economic, and environmental challenges, which can increase their vulnerability in each respective area. The severity of these threats' impact determines their overall effect. Based on UNDP (2000), these vulnerabilities can be categorised as follows:

1. Economic Vulnerability—a macroeconomic pressure that encompasses family economic pressures on the production, distribution, and consumption of the family's economy.
2. Environmental Vulnerability—derived from external pressures stemming from natural ecosystems (Fahrudin et al., 2024).
3. Social Vulnerability—external pressure related to social stability and social problems.

The existence and potential exposure to these threats would require a family to have access to protective and recovery resources to overcome such stressors. Oh dan Chang (2014) said that what is considered a strong and successful family is, in another sense, the family's resilience itself, particularly about:

a. Strength in the health aspect lies in families being physically, mentally, emotionally, and spiritually healthy.
b. Strength in economic aspects lies in families having sufficient economic resources to fulfil their living needs (a living wage) through employment opportunities, ownership of assets in a certain amount, and so on.
c. Strength in healthy family life lies in how skilled families manage risks, opportunities, conflicts, and care to achieve life satisfaction.
d. The strength in the aspect of education lies in the readiness of children to study at home and in school, progressing to the desired level of education with the involvement and support of their parents, ultimately achieving educational success.
e. Strength in the aspect of community life. The strength of community life is reflected in a family's balanced access to both formal and informal support networks, including positive social connections and assistance from friends and extended family, also known as social support (Wardani et al., 2021).

f.   Strength in addressing cultural differences in society through personal interaction skills with various cultures.

Indicators of Family Resilience

The concept of family resilience refers to the family as a functional system, impacted by events and social contexts, and in turn, facilitating the positive adaptation of all members and strengthening the family unit (Walsh, 2016). A family systems perspective broadens attention to resources for individual resilience throughout the family network of relationships (Walsh, 2016). The present study adopts the Walsh Family Resilience Framework as its foundational theoretical approach in developing and validating the Unidimensional Family Resilience Scale within the Indonesian context. Walsh (2003, 2016) defines family resilience as a dynamic, transactional process that enables families to adapt and thrive in the face of adversity. This framework identifies nine key resilience processes, systematically categorised into three core domains of family functioning: shared belief systems, organisational resources, and communication processes. These domains serve as a guiding structure for examining resilience in diverse family contexts, providing a robust theoretical lens for assessing the construct of family resilience. By grounding the scale development within this well-established theoretical framework, the study ensures conceptual coherence and practical relevance in capturing resilience as a multidimensional yet unified construct tailored to Indonesian families.

Empirical studies and systematic reviews have demonstrated that family resilience encompasses multiple dimensions (Oh & Chang, 2014; Walsh, 1996, 2016, 2021). Based on the reviewed literature and assessment of indicators related to family resilience (Oh & Chang, 2014; Patterson, 2004; Puspitawati, 2012; Walsh, 1996, 2016, 2021), we constructed a framework of family resilience that is divided into five aspects, namely 1) religious resilience, 2) physical resilience, 3) psychological resilience 4) economic resilience, 5) social security.

Firstly, religious resilience refers to a family's ability to maintain and strengthen their religious beliefs through worship. Related to the research by Herlina et al. (2023) on healthy lifestyle behaviours in Indonesian communities, religious resilience is crucial in Indonesia, much like other religious nations. This stems from the perceived threat of atheism and communism to family and societal structures. Worship is viewed as a fundamental spiritual need, fostering a connection with God believed to strengthen a family's ability to cope with challenges. This is referred to as the belief system in the Walsh Family Resilience Framework as part of the concept of transcendence and spirituality (Walsh, 2016).

The second aspect is physical resilience, specifically, the family's ability to maintain physical health, as poor physical conditions (due to existing ailments, accidents, seasonal illnesses, etc.) can impact the psychological dynamics of family life.

The third is Psychological Resilience. Psychological resilience is the ability of family members to manage their mental health in terms of managing their emotions, managing stress, life motivation, and communication with family members so that family members develop and carry out their functions properly and lower the risk of conflict, as many cases of family conflict and separation are known to have occurred due to communication problems and the mental health status of the problem partner (Aivalioti & Pezirkianidis, 2020). Both physical and psychological resilience were referred to as organisational processes in the Walsh Family Resilience Framework (Walsh, 2016).

The fourth is economic resilience, seen as the ability of families to fulfil their daily needs in terms of food, clothing, shelter, and entertainment. The Walsh Family Resilience Framework describes this as part of mobility, social, and economic resources (Walsh, 2016). Economic

resilience is considered essential because families that do not adequately meet their needs will affect their quality of life and may have fewer resources to solve family problems.

The fifth is social resilience, which refers to the family's ability to apply its values, culture, and norms within society. Social resilience encompasses how a family interacts with its social environment, as healthy social relationships with distal systems (such as the community) may have a positive impact on a family's development. This impact generally refers to how societal processes (e.g. regular contact with school systems or extended family members, receiving help from neighbours or community groups) may increase a family's ability to adapt to diverse social environments and the possible social barriers it may present. The Walsh Family Resilience Framework describes this process as part of a belief system and communication/problem-solving process (Walsh, 2016).

While Walsh's framework broadly categorises resilience processes into three domains (belief systems, organisational resources, and communication), our scale operationalises these into five measurable aspects tailored to Indonesian families. Religious resilience maps to Walsh's transcendence and spirituality; physical and psychological resilience reflects organisational resources (health and emotional regulation); economic resilience corresponds to resource mobilisation; and social resilience integrates both shared cultural beliefs and community connectedness. This adaptation ensures cultural relevance while retaining Walsh's systemic perspective on family resilience.

Methods

The participants in this study consisted of 1050 respondents (n = 1050), with a total of 73.05% women and 26.95% men. The researchers used Confirmatory Factor Analysis (CFA) and Rasch Analysis to examine item validity. In short, CFA is a factor analysis method developed to test specifications or theories about measurement models (Thompson, 2004). Alternatively, it could also be said that CFA is part of the factor analysis used to test the extent to which an item is valid in measuring what it is intended to measure. Therefore, CFA is used to test the construct validity of each item against the latent variable it measures (Roebianto et al., 2023).

According to Thompson (2004), a researcher is required to determine the following points before carrying out CFA: 1) determining the number of factors tested, 2) determining which variables or items will measure the factors being tested, and 3) whether these factors are correlated or not. Based on these points, the authors started the CFA with theoretical specifications regarding the measurement model being tested. Concerning the first two points, specifications of the measurement theory are presented in Table 1. For the third point, the correlation between factors was estimated to identify factors or items that correlated with each other.

Table 1. Blueprint of the Family Resilience Scale

Dimensions	Indicators	Item
Physical resilience	the ability of the family to maintain physical health and its impact on the psychological condition of family life	Does routine exercise with family members Doing outdoor activities for health educational purposes Pay attention to cleanliness to things in detail, such as washing hands before eating Doing routine health assessments All family members have participated in vaccination programs
Psychological resilience	the ability of family members to manage their mental health, in terms	Taking a moment to share stories with family members

of managing their emotions, managing stress, motivating life, and communicating with family members, so that family members develop and carry out their functions properly	Support each other when family members are facing problems Give examples to other family members to solve problems calmly, patiently and with focus Establish open communication with other family members Get used to discussing to reach an agreement in the family	
Economic resilience	the ability of families to fulfil their needs in terms of food, clothing, shelter and entertainment	Each family member understands the importance of saving Make family members learn to save more and buy items as needed only Make each family member always be grateful for every gift that has been obtained/owned Teach members to prioritise primary needs such as eating, rather than secondary needs, such as jewellery. Spend a holiday or a vacation with family members regularly.
Social resilience	Family strength in the application of values, culture and norms in society, social resilience includes how a family interacts with the social environment	Teach all family members about social norms Respect for all family members, whether young or otherwise Applying noble values to all people regardless of religion, ethnicity and race Families as the leading media and example in social interaction Teach family members to avoid social conflict
Religious resilience	The ability of families to improve religious beliefs in the form of worship	Doing worship with all family members Teach religious knowledge to family members Actively participating in weekly/monthly social-religious activities with family members Teach the procedures and explanation for worship to family members Explaining to family members about differences in existing beliefs as a gift

Sources: Personal data (2024).

In CFA testing, there are two steps: 1) the authors test whether the measurement model is unidimensional or not. Unidimensional means that there is only one factor that causes interrelated variables. A model is said to be fit if the null hypothesis states that there is no difference between the correlation matrix based on the theory and the correlation matrix based on the data is not rejected ($\Sigma - S = 0$). The hypothesis was tested using a chi-square test with a p-value set at 0.05 (the model is considered fit if p > 0.05); 2) if the unidimensional model is deemed fit, variables that are valid in measuring the factor (in this case, family resilience) can be identified. According to Umar (2011), there are two criteria in determining which items are valid for measuring a factor: 1) The direction of the factor load coefficient of the item according to the nature of the item, meaning that if an item is favourable, then the item must be positively charged and vice versa (the higher the item value, the higher the value on the measured factor and vice versa). Such items are declared valid. 2) Test whether or not the significance of the factor loading coefficient of each item using the t-test. If the t value of the factor load coefficient is significant (t> 1.96), then the item is declared valid and vice versa.

30-45

It was explained earlier that in the CFA framework, if only one factor causes variables or seasonal items to be correlated (unidimensional), therefore such items are deemed valid. However, if the partial correlation is calculated against the measured factor and the measurement error between variables or items within the factor is still correlated. The item is not unidimensional (shown through the correlation of repeated or multiple measurement errors between items). This would mean that the item measures something other than family resilience.

In Rasch analysis, various item properties will be obtained, including unidimensionality, rating scale, person and item reliability, and Cronbach's Alpha Index (Hidayat et al., 2023). Moreover, the Rasch analysis carried out item calibration to calibrate the location of the items and examine them at the same scale. According to Linacre (2002), some statistical features of the Rasch analysis include the Z-value (values greater than 2.00 indicate misfitting), Infit and Outfit Mean Square (MNSQ) (acceptable values typically range between 0.6 and 1.4 for productive measurement). The authors will also examine how demographic background influences resilience factors, particularly according to gender (men vs. women).

Results and Discussion

Descriptive Analysis

Based on the demographic information, some resilience aspects were found to be statistically different (Table 2). All resilience aspects were scaled to a range of 0–100 to ensure comparability.

Table 2. Descriptive & Correlational Analysis

	Mean	SD	KF	KP	KE	KS	KA	Gender
KF	50	13.4	1					.642
KP	50	16.7	.576**	1				1.765
KE	50	19.3	.323**	.460**	1			1.460
KS	50	15.5	.538**	.582**	.405**	1		3.648**
KA	50	16.5	.544**	.603**	.277**	.599**	1	1.131
Age	36.1	10.9	.116**	.078*	.072*	.162**	.123**	

Sources: Personal data (2024).
*sig at .05; ** sig at .01; Gender was tested with independent sample t-test

The average age of participants was 36.1 years (SD = 10.9). The aspects of family resilience correlated with each other at a moderate level. However, according to gender, it was found that only social resilience was significantly different between women and men; specifically, women had a higher median (Med = 51.1) than men (Med = 47.2). The result may reflect the gendered roles in family and community dynamics within the Indonesian context. Women often play central roles in nurturing and maintaining social connections within families, which might enhance their perception or development of social resilience. On the other hand, men may face societal expectations tied to financial provision, which can potentially limit their focus on aspects of social resilience.

The majority of respondents were married, with 96.26%, while the rest were unmarried (2.54%) and widowed (1.2%). Married individuals may exhibit higher levels of family resilience due to the shared responsibilities, emotional support, and collective problem-solving that occur within the family unit. However, the small proportion of unmarried (2.54%) and widowed (1.2%) participants may have introduced variability in specific resilience dimensions, particularly in areas such as emotional or social resilience, where partner support plays a significant role.

In terms of income, most participants reported an income of less than Rp 4,000,000 (31.9%), and 28.3% reported having no income. Moreover, 32.6% of participants had an income between Rp 4,000,000 and Rp 15,000,000, while only 7.2% had an income exceeding Rp 15,000,000. Financial strain is a critical factor influencing family resilience, as limited resources can heighten stress and reduce access to support systems. On the other hand, participants in the higher income brackets (32.6% earning Rp 4,000,000–15,000,000 and 7.2% earning more than Rp 15,000,000) might have more resources to buffer stressors, potentially enhancing certain resilience dimensions such as adaptive coping and problem-solving.

Most participants worked as private employees (33.4%) or had no job (students, etc.) (32%); some other participants worked as civil servants (15.1%) or entrepreneurs (13.5%), while the least participants worked as daily employees (5.9%). Private employees may have structured routines and access to workplace benefits, which could support family resilience. In contrast, those without formal employment, including students, might rely more on family or community networks to build resilience. Civil servants (15.1%) and entrepreneurs (13.5%) may exhibit unique resilience dynamics tied to job stability and financial independence, whereas daily employees (5.9%) may face greater financial insecurity, which could potentially impact their overall resilience.

Most participants lived in DKI Jakarta (23.6%), Banten (22.7%), West Java (21.7%), Central Java (7%), East Java (5.8%, Jambi (3.8%), Central Kalimantan (3.9%), and many more regions in Indonesia with less than 1%. Urban areas often provide greater access to resources such as healthcare, education, and social services, which can enhance family resilience. However, urban living may also introduce stressors such as overcrowding and high living costs. Participants from less represented regions, such as Central Java (7%), East Java (5.8%), Jambi (3.8%), and Central Kalimantan (3.9%), may experience resilience differently due to varied cultural practices, economic opportunities, and access to infrastructure.

Validity Test of Family Resilience Scale

The family resilience scale in this study consists of five dimensions: physical resilience (KF), Psychological Resilience (KP), economic resilience (KE), Social resilience (KS), and religious resilience (KA). Each dimension is measured on a 4-point Likert scale: strongly disagree (1) until strongly agree (4), with a higher score indicating greater resilience. At the measurement model level, a model is considered ideal if it meets several criteria (Jöreskog & Sorbom, 1999), namely 1) chi-square values that have a p-value> 0.05 (p> 0.05); 2) RMSEA values below 0.05; 3) the CFI and TLI values are above 0.96 or close to 1. Therefore, analysis is based on one of these two criteria. The results are presented in Table 2 below.

Table 2. CFA Test Results

	KS	KP	KE	KS	KA
Df	4	5	3	3	5
chi-square	5,219	12,427	5,399	3,487	10,415
RMSEA	0,021	0,047	0,035	0,016	0,04
CFI	1	0,999	0,999	1	0,998
TLI	0,999	0,997	0,996	1	0,996

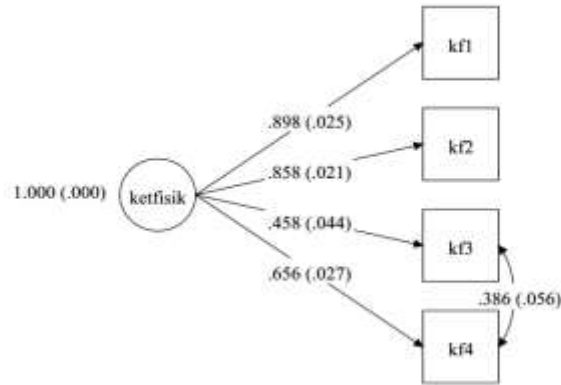Sources: Personal data (2024).

According to Table 2, it can be seen that all aspects or dimensions of the Family Resilience Scale are expressed as a unidimensional fit. All of these values are by the standards for the test of goodness of fit criteria. Thus, it can be concluded that all dimensions are constructively valid and adequately measure family resilience as a unified construct. The validity of each item in each dimension can be seen in Table 3:

Table 3. Validity Test Results

| Dimension	Item	B	SE	t-value	Validity
KF	kf1	0,641	0,033	19,179	Valid
	kf2	0,612	0,038	16,216	Valid
	kf3	0,632	0,04	15,887	Valid
	kf4	0,916	0,033	27,488	Valid
	kf5	0,405	0,039	10,336	Valid
KP	kp1	0,846	0,016	51,462	Valid
	kp2	0,869	0,023	38,849	Valid
	kp3	0,81	0,021	39,109	Valid
	kp4	0,785	0,018	42,621	Valid
	kp5	0,882	0,015	60,617	Valid
KE	ke1	0,645	0,036	17,928	Valid
	ke2	0,679	0,035	19,474	Valid
	ke3	0,916	0,036	25,128	Valid
	ke4	0,731	0,036	20,514	Valid
	ke5	0,477	0,042	11,414	Valid
KS	ks1	0,732	0,036	20,408	Valid
	ks2	0,716	0,037	19,11	Valid
	ks3	0,511	0,033	15,619	Valid
	ks4	0,856	0,03	28,205	Valid
	ks5	0,505	0,034	14,706	Valid
KA	ka1	0,868	0,021	40,585	Valid
	ka2	0,929	0,017	54,142	Valid
	ka3	0,74	0,024	31,228	Valid
	ka4	0,861	0,022	39,873	Valid
	ka5	0,213	0,045	4,713	Valid

Sources: Personal data (2024).

According to Table 3, all items have a t-value greater than 1.96, indicating that all items in this family resilience scale are valid and none need to be excluded for analysis. The measurement models in each dimension are presented in the following figures:
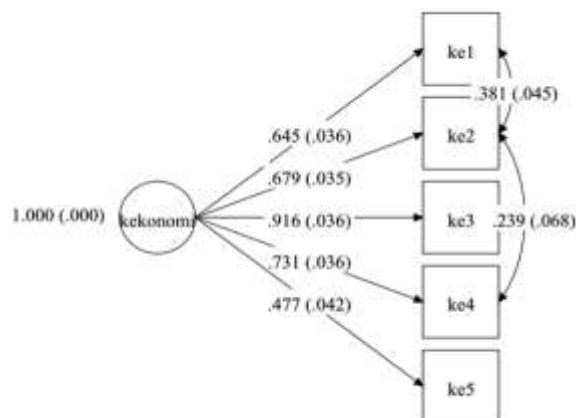
Sources: Personal data (2024).
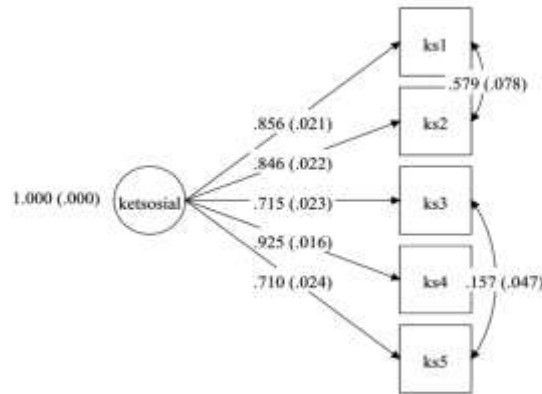
Figure 1. Physical Resilience Model
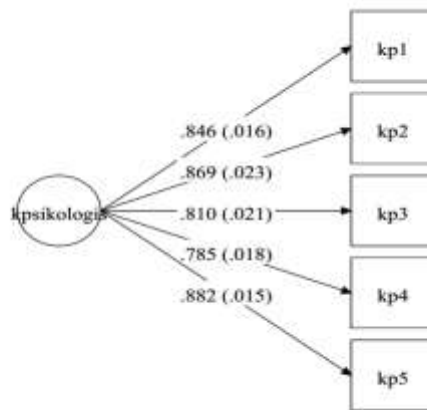
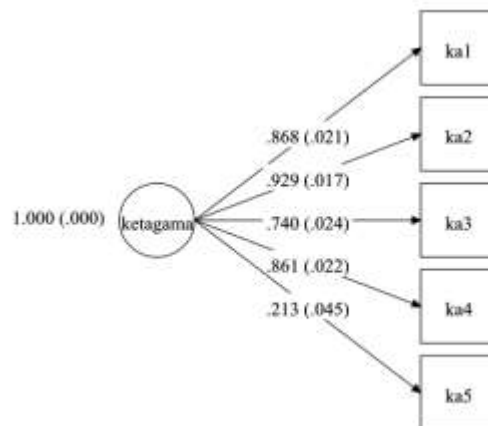Sources: Personal data (2024).

Figure 2. Psychological Resilience Model

Sources: Personal data (2024).

Figure 3. Economic Resilience Model

Sources: Personal data (2024).

Figure 4. Social Resilience Model

Sources: Personal data (2024).

**Figure 5.** Religious Resilience Model

After testing the unidimensional model of each dimension, a test for factor models was done. In this analysis, the authors compared the models to determine which one provided the best fit for the data. The models were a unidimensional model, an orthogonal factor model, a correlated factor model, and a second-order factor model. 1) In the unidimensional model, it was hypothesised that all 25 items measure the primary factor (resilience family). 2) In the orthogonal model, all the dimensions were constrained to be not correlated with each other. 3) In the correlated factors model, all five aspects were correlated with each other but with no primary factor constrained in the model. 4) Moreover, the last counterpart model simultaneously measured all the items and dimensions of the main factor (family resilience). For further details, the statistical results of these models are presented in the following table (Table 4.).

Table 4. Test of goodness of fit of some models

|	Unidimensional	OFM	HLM 2nd order	CFM
Df	5465,31	12574,72	960	901,925
Chi-square	275	275	270	265
CFI	0,887	0,39	0,966	0,968
TLI	0,887	0,335	0,962	0,964
RMSEA	0,111	0,259	0,062	0,06

Sources: Personal data (2024).

From the level of CFI/TLI (> .95), it was identified that the best CFA model for the Family Resilience Scale was a second-order factor and correlated factor model. These models also have RMSEA < 0.1. To select between these two models, CFM is arguably a more appropriate model (as it is a parsimony model with fewer parameters). However, since the theoretical basis of this scale assumes that the items and dimensions can measure the primary factor. Therefore, the second-order factor model can also be considered for use. The figures of these models are illustrated below.
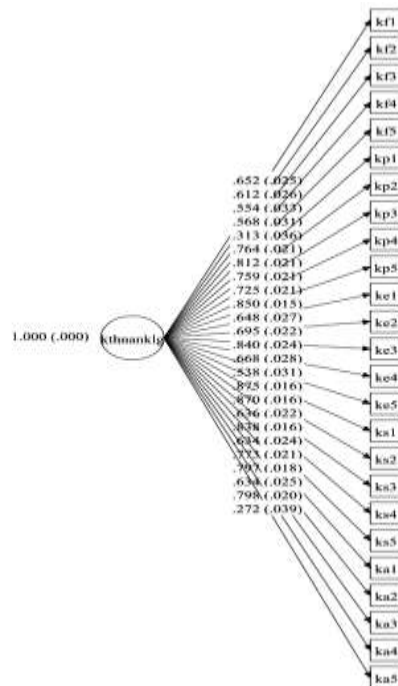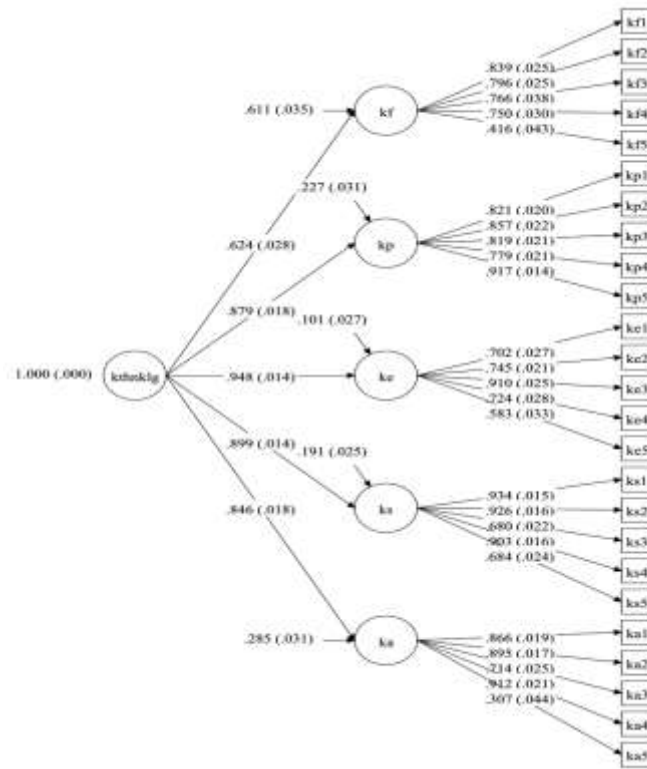

Sources: Personal data (2024).

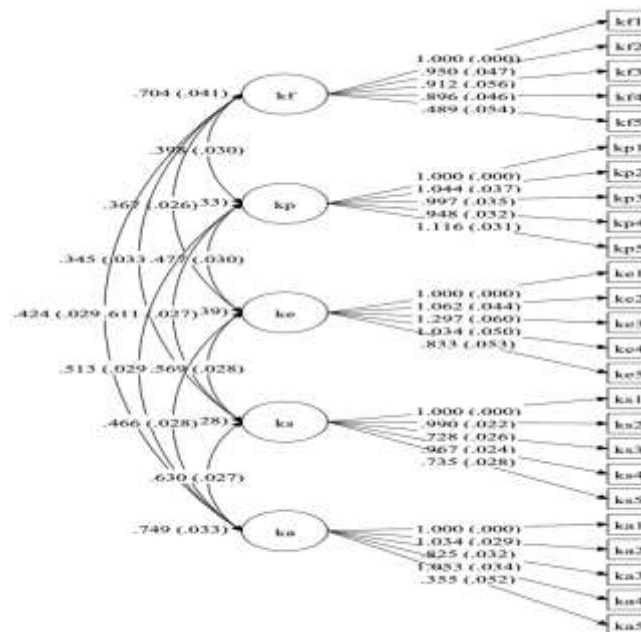**Figure 5.** The unidimensional model of the Family Resilience Scale
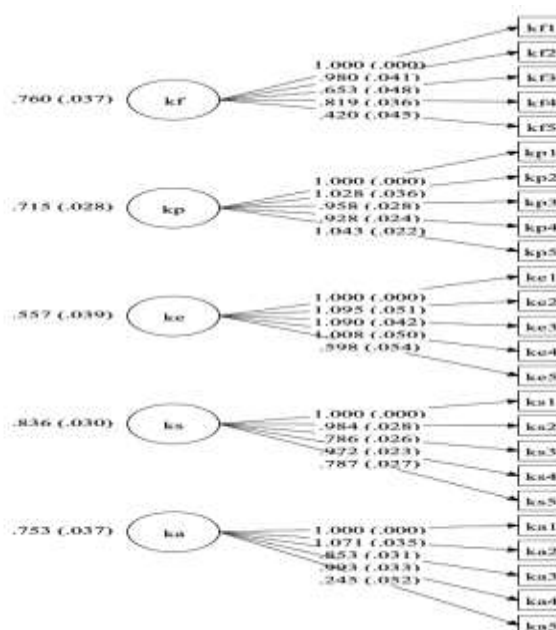
Sources: Personal data (2024).

Figure 6. The orthogonal factor model of the Family Resilience Scale

Sources: Personal data (2024).

Figure 7. The second-order factor of the Family Resilience Scale

Sources: Personal data (2024).

Figure 8. The correlated factor model of the Family Resilience Scale

Based on all the results of the CFA analysis, all factors or dimensions are declared unidimensional. Several factors or dimensions were deemed fit, but some dimensions required modification in the measurement model. For example, the measurement model modifies the social resilience dimension. However, overall, all dimensions are deemed unidimensional. Based on the t-value and factor load coefficient (factor loading), all items are considered valid when measuring the dimensions or factors. The lowest to highest coefficient values ranged from 0.213 to 0.929. Thus, the most minor variance is 0.045 (4.5%), and the largest is 0.863 (86.3%).

Rasch Analysis

As shown in Table 5, the logit mean of the item is 0, and the logit mean of the person is 1.94. It shows that all the participants have a higher resilience capacity. The SEM was also relatively small both for items (SEM = 0.21) and persons (SEM = 0.02). It is informing that the measurement was quite precise. In terms of item and person statistics, the MNSQ and ZSTD showed within the ideal criteria. The standard deviation was also less than 2 for both items and persons. The Cronbach's alpha for all items was 0.91, indicating reliability. The raw variance was 43.10%, which indicates that the unidimensionality of the test was achieved.

Table 5. Rasch Analysis

	Item	Item Infit		Item Outfit		Person	Person Infit		Person Outfit	
		MNSQ	ZSTD	MNSQ	ZSTD		MNSQ	ZSTD	MNSQ	ZSTD
Mean	0	1	-0.25	1.01	0.09	1.94	1.03	-0.13	1.01	-0.22
Standard Error of Measurement (SEM)	0.21	0.04	0.85	0.05	0.92	0.04	0.02	0.06	0.02	0.06
Standard Deviation	1.05	0.18	4.16	0.23	4.53	1.39	0.61	1.88	0.7	1.86
Cronbach Alpha	0.91									
Raw Variance	43.10%									

Sources: Personal data (2024).

The description of resilience based on gender is presented in Table 6. Overall, female resilience was slightly higher than that of males. In terms of general and social resilience, significant differences were found, indicating that females had a higher resilience level than males.

Table 6. Descriptive of Resilience based on gender

Domain	Mean	Standard Deviation	Male		Female	
			Mean	Standard Deviation	Mean	Standard Deviation
General Resilience	1.94	1.39	1.79	1.41	2.00*	1.38
Physical Resilience	2.79	2.23	2.75	2.22	2.81	2.23
Psychological Resilience	3.29	2.45	3.08	2.41	3.37	2.47
Economic Resilience	0.9	2.5	0.72	2.63	0.97	2.46
Social Resilience	3.55	2.45	3.07	2.48	3.72**	2.42
Religious Resilience	3.37	2.37	3.19	2.46	3.44	2.33

Sources: Personal data (2024).
*sig at 0.05; **sig at 0.01

The Wright map, which locates items and people on the same scale, is shown in Figure 8. It can be seen that the distribution of the person is slightly higher than the distribution of the items. This means that people perceived their resilience ability to be higher.
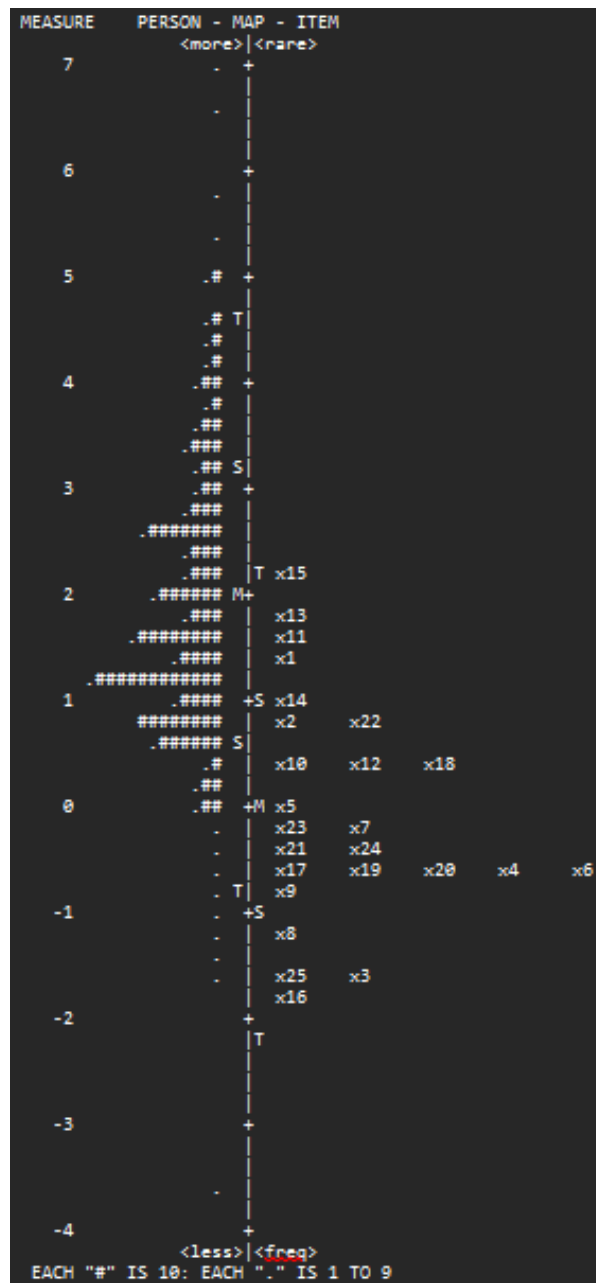
Sources: Personal data (2024).

Figure 8. Wright Map of Items and Person

The Wright Map analysis indicates that respondents' distribution is slightly higher than the item distribution, suggesting that most respondents perceive their resilience abilities as higher than the difficulty level of the scale items. This finding suggests that the scale is effective in capturing variations in family resilience levels; however, some items may not be fully challenging for individuals with higher resilience levels.

Furthermore, additional analysis also revealed differences in resilience based on gender. Descriptive results indicate that women have higher resilience levels than men, particularly in the aspects of social and general resilience. This phenomenon can be explained by several psychological, social, and cultural

factors specific to the Indonesian family context. These differences suggest that women tend to have stronger capacities in dealing with social and emotional challenges. In Indonesia, where patriarchal and collectivist values are still prevalent, women are often regarded as the caretakers of family harmony. Their central role in maintaining the emotional and social well-being of the family enhances their ability to cope with and manage stress or adversity. Women also tend to employ emotion-based coping strategies, such as seeking social support and sharing feelings, which are more effective in handling psychological stress compared to men, who often rely on problem-solving strategies independently. Additionally, women's more substantial involvement in social relationships with family members and the broader community provides them with greater support in building resilience.

The traditional family structure places women at the centre of household life, providing them with more opportunities to develop emotional resilience through continuous social interactions, particularly in the Indonesian family context. Moreover, socio-economic conditions also play a role in shaping resilience, where women often demonstrate greater adaptability in managing resources to maintain family well-being. Community-based social support, such as women's groups and religious gatherings, further contributes to strengthening their resilience.

The following table from Rasch's analysis was the item difficulty level. By using the mean and standard deviation of the items, the author can identify the difficulty level. The categories consisted of four levels as follows: very difficult (item measure > 1 SD), difficult (mean < item measure < 1 SD), easy (-1 SD < item measure < mean), and very easy (item measure < -1 SD). As can be seen in Table 7, the number of items with a very difficult level was four items (16%), the number of items with a difficult level was nine items (36%), the number of items with an easy level was four items (16%), and the number of items with a very easy level was eight items (32%). In the development of the Family Resilience Scale within the Indonesian context, additional analysis using the Rasch Model provides deeper insights into the psychometric properties of this instrument. The Rasch analysis provides further clarity regarding the distribution of individual resilience levels concerning the difficulty level of items on the scale.

Table 7. Item Difficulty Level

Domain	Item	Item Measure	Item Discrimination	Difficulty Level
Physical Resilience	1	1.44	0.44	Very Difficult
	2	0.88	0.42	Difficult
	3	-1.62	0.51	Very Easy
	4	-0.6	0.62	Easy
	5	-0.05	0.55	Easy
Psychological Resilience	6	-0.63	0.51	Easy
	7	-0.16	0.6	Easy
	8	-1.13	0.66	Very Easy
	9	-0.76	0.64	Easy
	10	0.3	0.59	Difficult
Economic Resilience	11	1.64	0.57	Very Difficult
	12	0.47	0.59	Difficult
	13	1.83	0.46	Very Difficult
	14	0.97	0.52	Difficult
	15	2.11	0.46	Very Difficult
Social Resilience	16	-1.71	0.55	Very Easy
	17	-0.51	0.61	Easy

	18	0.46	0.59	Difficult
	19	-0.61	0.56	Difficult
	20	-0.53	0.58	Difficult
	21	-0.33	0.59	Difficult
	22	0.81	0.56	Difficult
Religious Resilience	23	-0.24	0.63	Easy
	24	-0.38	0.54	Easy
	25	-1.66	0.43	Very Easy

Sources: Personal data (2024).

Family resilience in Indonesia is deeply rooted in the cultural values of collectivism, where extended families play a crucial role in providing emotional and financial support during tough times. This interconnectedness is key to resilience, particularly in the social and emotional dimensions. Traditional values of harmony and mutual respect guide families in adapting to challenges, making communication and conflict resolution essential aspects of resilience.

To develop an effective family resilience scale, the study examined various models, including unidimensional, orthogonal, correlated, and second-order factors. The unidimensional model stood out as the most practical and easy to use, striking a balance between accuracy and real-world applicability. While more complex models offer deeper theoretical insights, they may not be as user-friendly in clinical or community settings, where quick and precise assessments are necessary.

Family resilience, as defined by Walsh (1996, 2003, 2012, 2016), reflects a family's ability to withstand and recover from adversity as a unit. When one member faces a serious problem, the entire family feels the impact and must find ways to adapt. For instance, if a teenager gets involved in criminal activity, the whole family must cope with the stress and find solutions. Strong family relationships, open communication, and problem-solving skills help families navigate difficulties, maintain stability, and support one another.

Economic struggles, including income inequality and limited access to resources, also impact family resilience in Indonesia. Families with fewer financial resources often rely on their communities and social networks for support. Additionally, cultural differences shape resilience strategies; some families may turn to spirituality or religious practices as coping mechanisms. Understanding these variations can help develop more targeted initiatives to build resilience.

Gender differences in resilience have also been identified, with women generally displaying higher resilience levels than men, particularly in social and general aspects of resilience. This phenomenon can be explained by psychological, social, and cultural factors specific to the Indonesian family context. Women are often regarded as the caretakers of family harmony and are more likely to employ emotion-based coping strategies, such as seeking social support, compared to men, who tend to rely on problem-solving independently. Their involvement in community-based social groups and religious gatherings also strengthens their resilience. These findings suggest that interventions should consider gender-specific approaches to resilience-building, including initiatives that encourage men to develop stronger social support networks and emotional coping strategies.

Women often assume primary roles in emotional and relational caregiving in Indonesian families (Puspitawati, 2012). Their overrepresentation might skew responses toward perspectives on resilience that emphasise communication, emotional support and religious coping. Conversely, men's perspectives, which are potentially underrepresented, might prioritise economic resilience or problem-solving approaches (Purboningrum & Sholichah, 2022). Future studies should strive for gender-balanced samples to assess whether the scale performs equally across genders.

The Wright Map analysis reveals that respondents generally perceive their resilience abilities as higher than the difficulty level of the scale items. This suggests that while the scale effectively captures variations

in resilience, some items may need adjustments to better challenge individuals with higher resilience levels. Rasch's analysis further categorised the item difficulty levels, revealing a need to refine specific items for a more precise measurement across diverse populations.

The findings of this study have significant implications for both interventions and policies in the real world. Programs that enhance emotional and social resilience can equip families with the skills they need to communicate more effectively, regulate their emotions, and resolve conflicts. Teaching problem-solving strategies can help families manage crises, such as financial instability or health issues. Ensuring access to mental health services and educational support can further strengthen resilience.

On a broader scale, policies should adopt a holistic approach, focusing on families as a whole rather than just on individual members. For example, addressing juvenile delinquency requires interventions that include parental support, counselling, and community mentorship. Policies that offer financial aid, crisis management resources, and family-centred counselling can help vulnerable families develop resilience and adapt to challenges.

This study also validated the Family Resilience Scale, confirming its reliability as a tool for measuring and strengthening resilience. The scale can be used in clinical settings, family counselling, and community programs to identify strengths and areas for improvement. By using this scale, practitioners can offer more targeted support, such as helping families with emotional regulation, problem-solving, or relationship dynamics.

Beyond assessment, the scale provides a framework for growth and transformation. Families who face challenges together often emerge stronger, more loving, and more resourceful (McCubbin et al., 2013). It can guide therapeutic sessions focused on rebuilding trust, improving communication, and developing coping strategies. Future research should investigate how this scale can be applied across diverse cultural and socio-economic backgrounds to ensure its broad applicability.

Understanding the cultural, social, and economic factors that influence family resilience is crucial for developing more effective interventions and policies in Indonesia. Programs designed to strengthen family resilience should consider cultural norms, family roles, and economic disparities. Providing targeted financial aid and access to essential resources can help families better cope with adversity.

The Family Resilience Scale serves as a bridge between theory and practical application. In clinical settings, it can help practitioners design interventions that enhance communication, emotional regulation, and problem-solving. In community programs, it can identify at-risk families and guide tailored support efforts. For example, families dealing with financial stress or severe health conditions could benefit from specialised counselling and resource allocation based on scale assessments.

The Family Resilience Scale is not merely a measurement tool but a roadmap for culturally grounded interventions. For example, in Aceh, where religiosity and community ties are central, a low score on the resilience scale and social resilience could prompt collaborations between Islamic schools and social workers to rebuild trust following a conflict. Such applications underscore the scale's alignment with Walsh's (2016) transactional model, where resilience is nurtured through systemic support.

In community settings, the Family Resilience Scale can be used to facilitate community development. For example, in Palu, post-disaster earthquake, low scores on the family resilience scale, particularly in economic resilience, prompted NGOs to combine cash aid with livelihood training, aligning with Walsh's theory, which emphasises the importance of organisational resources. These examples underscore the scale's potential to bridge research and real-world practice.

Rasch's analysis confirmed the scale's strength in measuring family resilience as a unidimensional concept. However, some items may require adjustments to better fit different demographic groups. Future research could refine the scale by mapping responses across various populations to ensure inclusivity and relevance. The analysis also highlighted gender differences, showing how social and cultural factors

shape resilience. This insight can inform gender-specific resilience programs, such as encouraging men to develop social support networks and relational coping strategies.

Encouraging men to take a more active role in the emotional and social aspects of family life, such as through fatherhood programs, can help build stronger family resilience. Programs should consider gender differences in resilience-building and offer tailored approaches that suit diverse family dynamics.

Future research should investigate how family resilience evolves in response to various stressors and interventions. Additionally, cross-cultural studies could assess the scale's applicability in different social and economic settings. By deepening our understanding of resilience as a dynamic process, we can refine interventions and policies that support families more effectively in navigating life's challenges.

Conclusion

This study advances our understanding of how families navigate adversity by utilising emotional, social, physical, and economic resources to foster resilience. The development and validation of the Family Resilience Scale within an Indonesian context provide a unidimensional and psychometrically sound instrument. Grounded in Walsh's Family Resilience Framework, this study adopts Walsh's theoretical approach to guide the construction and validation of the unidimensional Family Resilience Scale, ensuring conceptual and empirical coherence within the Indonesian cultural context. This tool enables researchers and practitioners to assess resilience levels and identify specific areas for enhancement, offering a structured approach to understanding and addressing the dynamic and interconnected nature of family resilience. Practically, the scale offers significant value for clinical, counselling, and community-based interventions. Identifying resilience strengths and gaps supports the development of tailored approaches to strengthen family bonds, enhance communication, and foster adaptive problem-solving strategies. For example, the scale can guide interventions for families facing financial hardship, relational conflicts, or other crises, empowering them to rebuild trust and thrive as a collective. Beyond individual application, the findings emphasise the importance of holistic, family-centred policies and programs that address collective needs, such as providing mental health services, crisis management resources, and family-based mentorship. Future research should expand the scale's utility by integrating additional validity measures, such as convergent validity, with other resilience instruments and exploring its applicability across diverse cultural and socio-economic contexts. A broader respondent base will enrich the understanding of how resilience operates in various family systems, such as those of refugees or families with children with special needs. This scale bridges academic research and real-world practice, affirming that resilience is not an individual trait but a shared process of adaptation and growth. By leveraging these insights, families can navigate challenges more effectively, emerge stronger, more cohesive, and better equipped to face future adversities.

Acknowledgement

Conflict of Interest

The authors declared that they do not have any conflicts of interest regarding this article.

Authors Contribution

The 1st author's contribution was the background and literature section. The 2nd author contributed to the methods and results sections. The 3rd author contributed to the discussion and conclusion sections.

References

Aivalioti, I., & Pezirkianidis, C. (2020). The role of family resilience on parental well-being and resilience levels. *Psychology, 11*, 1705-1728. doi: 10.4236/psych.2020.1111108

Black, K., & Lobo, M. (2008). A conceptual review of family resilience factors. *Journal of Family Nursing 45*, 14(1), 33-55. doi: 10.1177/1074840707312237.

Fahrudin, A., Albert, W. K. G., Esterilita, M., Rochman, U. H., Utami, N. N., Rauf, S. H. A., Chik, A., & Wardani, L. M. I. (2024). Impact of climate change on mental health among vulnerable groups: A systematic literature review. *Journal of Lifestyle & SDG'S Review, 5,* 1-25. doi: 10.47172/2965-730X.SDGsReview.v5.n01.pe02671

Fahrudin, A. Mas'ud, F. H., Rose, N. N., & Wardani, L. M. I. (2020). *Dinamika Keluarga Pada Masa Pandemi Covid-19*. UM Jakarta Press.

Hidayat, M. L., Hariyatmi, Astuti, D. S., Sumintono, B., Meccawy, M., & Khanzada, T. J. S. (2023). Digital competency mapping dataset of pre-service teachers in Indonesia. *Data in Brief*, *49*, 109310. https://doi.org/10.1016/j.dib.2023.109310

Linacre, J. M. (2002). What do infit and outfit, mean-square and standardised mean. *Rasch Measurement Transactions*, *16*(2), 878.

Gauvin-Lepage, J., Malo, D., & Lefebvr, H. (2015). Family resilience following a physical trauma and efficient support interventions: A critical literatur review. *Journal of Rehabilititation*, 81(3), 34 - 42.

Hadfield, K., Ungar, M. (2018). Family resilience: emerging trends in theory and practice. *Journal of Family Social Work*, 2(21), 81-84. doi: 10.1080/10522158.2018.1424426

Hawley, D. R., & DeHaan, L. (1996). Toward a definition of family resilience: Integrating life-span and family perspectives. *Family Process, 35*(3), 283–298. https://doi.org/10.1111/j.1545-5300.1996.00283.x

Herawati, T., Krisnatuti, D., & Rukmayanti, I.R.. (2012). Dukungan sosial dan ketahanan keluarga peserta dan bukan peserta program nasional pemberdayaan masyarakat (PNPM) mandiri. *Jurnal Ilmu Keluarga & Konsumen*, 5(1), 1-10. doi : 10.24156/jikk.2012.5.1.1

Herlina, M., Palutturi, S., Permata, S. P., Husmiati, Y., Wardani, L. M. I., Fahrudin, A., & Islam, M. R. (2023). Challenges enhancing healthy lifestyle behaviors in community settings in Indonesia: The role of social literacy, religious involvement, and technology-equipped systems. *Journal of Community Positive Practices, 23*(4), 76-94. Doi: 10.35782/JCPP.2023.4.05

Hestyanti, Y.R. (2006). Children survivors of the 2004 tsunami in Aceh. *Annals of the New York Academy of Sciences*, 1094, 303-307. https://doi.org/10.1196/annals.1376.039

Iqbal, M. (2017). Psikologi Ketahanan Keluarga. *Buletin KPIN*, 3(9). Retrieved from: http://www.buletin.k-pin.org/index.php/arsip-artikel/197-psikologi-ketahanan-keluarga

Jöreskog, K.G. & Sörbom, D. (1999). LISREL 8.30 and PRELIS 2.30. Chicago: Scientific Software International

Lestari, S. (*2012).* Psikologi *Keluarga*. Jakarta: Kencana

Masten, A.S. (2018). Resilience theory and research on children and families: past, present, and promise. Journal of Family Theory & Review, 10(1). https://doi.org/10.1111/jftr.12255

McCubbin, L. D., & McCubbin, H. I. (2013). Resilience in ethnic family systems: A relational theory for research and practice. In D. Becvar (Ed.), *Handbook of family resilience* (pp. 175– 195). New York, NY: Springer.

Okina, F., Khairudin, R., Sulaiman, W. S. W., & Wardani, L. M. I. (2023). Online TOPSE: Measuring parental self-efficacy in Indonesia. *International Journal of Cyber Behavior, Psychology and Learning, 14*(1), 1-16. doi: 10.4018/IJCBPL.340389

Oh, S. & Chang, S.J. (2014). Concept Analysis: Family Resilience. *Journal of Nursing*, 4(13), 980-990. doi: 10.4236/ojn.2014.413105

Patterson, J.M. (2004). Integrating family resilience and family stress theory. *Journal of Marriage and Family*, 64(2) 349. https://doi.org/10.1111/j.1741-3737.2002.00349.x

Puspitawati, H. (2012). *Ketahanan dan Kesejahteraan Keluarga*. In H Puspitawati (Ed.), Gender dan Keluarga: Konsep dan Realita di Indonesia. Bogor: IPB Press

Purboningru, R.F., & Sholichah, M. (2022). Resiliensi keluarga pengusaha kecil yang terdampak pandemi COVID-19. Seminar Nasional Psikologi, Universitas Ahmad Dahlan.

Risnawati, E., Nuraqmarina, F., & Wardani, L. M. I. (2021). Peran Father Involvement terhadap Self Esteem Remaja. *Psympathic: Jurnal Ilmiah Psikologi, 8*(1), 143–152. doi:10.15575/psy.v8i1.5652

Roebianto, A., Savitri, S. I., Aulia, I., Suciyana, A., & Mubarokah, L (2023). Content Validity: Definition and Procedure of Content Validation in Psychological Research. *TPM. Testing, Psychometrics, Methodology in Applied Psychology, 30*(1), 5–18. doi:10.4473/TPM30.1.1

Shader, M. (2003). Risk factors for delinquency: an overview. National Criminal Justice Reference Service. U.S. Office of Justice Programs. Retrieved from : https://www.ncjrs.gov/pdffiles1/ojjdp/frd030127.pdf

Sombuling, A., Tassaka, N. S., & Wardani, L. M. I. (2022). Perkaitan konflik kerja dan keluargaterhadap kepuasan keibubapaan dalam kalangan wanita bekerjasemasa tempoh perintah kawalan pergerakan (PKP). *International Journa for Studies on Children, Women, Elderly and Disabled, 6*, 8-11.

Sunarti, E. (2007). Theoretical and Methodological Issues on Family Resilience. Presented at Senior Official Forum on Families. Nusa Dua: Bali

Sunarti, E., & Fitriani, F. (2010). Kajian modal,dukungan sosial,dan ketahanan keluarga nelayandi daerah rawan bencana. *Jurnal Ilmu Keluarga & Konseling*, 3(2), 93-100. https://doi.org/10.24156/jikk.2010.3.2.93

Thompson, B. (2004). *Exploratory and confirmatory factor analysis: Understanding concepts and applications.* American Psychological Association. https://doi.org/10.1037/10694-000

Umar, H. (2011). *Metode Penelitian Untuk Skripsi dan Tesis Bisnis*. Jakarta: PT Raja Grafindo Persada

Ungar, M. (2004). The importance of parents and other caregivers to the resilience of high-risk adolescents.*Family Process*, *43*(1), 23–41. doi:10.1111/j.1545-5300.2004.04301004.x

Walsh, F. (1996). The concept of family resilience: Crisis and challenge. *Family Process, 35*(3), 261 – 281. doi:10.1111/j.1545-5300.1996.00261.x

Walsh, F.. (2003). Family resilience: A framework for clinical practice. Family Process 42,(1) 1 – 18. https://doi.org/10.1111/j.1545-5300.2003.00001.x

Walsh, F. (2012). Family Resilience : Strengths Forged through Adversity. In F Walsh (Ed.), *Normal family Processes: Growing diversity and complexity* (p. 399-427). New York: Guilford Press

Walsh, F. (2016). Family resilience: A developmental systems framework. *European Journal of Developmental Psychology, 13*(3), 313 – 324. http://dx.doi.org/10.1080/17405629.2016.1154035

Walsh, F. (2021). Family resilience: A dynamic systemic framework. In M. Ungar (Ed.), *Multisystemic resilience: Adaptation and transformation in contexts of change* (pp. 255–270). Oxford University Press. https://doi.org/10.1093/oso/9780190095888.003.0015

Wardani, L. M. I., & Amaliah, A. (2020). The role of psychological empowerment as mediator between psychological capital and employee well-being. *Journal of Critical review*, 7(13), 291-296. http://dx.doi.org/10.31838/jcr.07.13.49

Wardani, L. M. I., & Anwar, M. S. (2019). The role of quality of work life as mediator: Psychological capital and work engagement. *Humanities and Social Scieces reviews*, 7(6), 447-463. https://doi.org/10.18510/hssr.2019.7670

Wardani, L. M. I., Jeanne, Y., Mardhiyah, M., & Komarudin, A. (2021). Core self-evaluation as a mediator for social support and psychological well-being: A study of Indonesian migrant domestic worker candidates. Kasetsart Journal of Social Sciences, 42(3), 637–644. doi:10.34044/j.kjss.2021.42.3.27

Wardani, L. M. I., & Noviyani, T. (2020). Employee well-being as a moderator of correlation between psychological capital and psychological climate. *Journal of Educational, Health, and Community Psychology*, 9(2), 47-63. http://dx.doi.org/10.12928/jehcp.v9i2.14357

Wardani, L. M. I., Wulandari, S., Triasti, P., & Sombuling, A. (2020). The effect of psychological capital on work engagement: Employee well-being as a mediator. *Test Engineering and Management*, 83(May-June), 17220-17229.