

**ORIGINAL ARTICLE****Validation of the Maternal Resilience Scale (ERESMA) in Mothers of Children with Disabilities****Milagros Cahuana Cuentas<sup>1\*</sup>; Candy Céspedes Quispe<sup>1</sup>, Renzo Rivera<sup>1</sup>; Walter L. Arias Gallegos<sup>1</sup>**<sup>1</sup> Universidad Católica San Pablo, Arequipa City, Peru.\* Correspondence: [micahuana@ucsp.edu.pe](mailto:micahuana@ucsp.edu.pe)

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**ABSTRACT**

**Introduction:** Maternal resilience is a crucial variable for mothers of children with disabilities; therefore, having instruments grounded in theoretical models that reflect the unique characteristics of this condition is highly relevant. **Objective:** To analyze the validity and reliability of the Maternal Resilience Scale (ERESMA) in Peruvian mothers of children with disabilities. **Method:** The study followed an instrumental design, evaluating a sample of 243 mothers of children with disabilities, aged between 23 and 76 ( $M = 43.16$ ) and living in the provinces of Arequipa and Puno. The diagnoses of their children were mainly intellectual disability (42.7%), autism spectrum disorder (15.3%), and multiple disabilities (15.3%). **Results:** It was confirmed that the original six-factor structure has adequate goodness-of-fit indices:  $\chi^2(804) = 916.222$ ,  $p = .004$ , CFI = .985, TLI = .984, RMSEA = .024, and SRMR = .072. Likewise, the internal consistency results using the omega coefficient are adequate for self-determination ( $\omega = .727$ ), hopelessness ( $\omega = .826$ ), spiritual faith ( $\omega = .763$ ), lack of partner support ( $\omega = .836$ ), and limited resources to meet needs ( $\omega = .785$ ); while borderline values were obtained for the factor of rejection personal responsibility ( $\omega = .651$ ). **Conclusion:** The ERESMA Scale, when applied to mothers of children with disabilities in Peru, demonstrates sufficient evidence of validity and reliability to support its appropriate use.

**Keywords:** maternal resilience; children with disabilities; validity; reliability; instrument.

**INTRODUCTION**

The birth of a child with a disability presents parents with a series of challenges (Dumont, 2019). In Peru, the prevalence of individuals with disabilities reaches 10.4% of the total population, with 14.4% of this group composed of children and adolescents (Instituto Nacional de Estadística e Informática [INEI], 2017). This reality imposes a significant burden on primary caregivers—mainly mothers—who must develop coping and resilience strategies to manage the demands associated with this situation (Rasouloor et al., 2023; Solikhin et al., 2024). Roque et al. (2009) defines maternal resilience as the mother's capacity to adapt positively to adversity, noting that it serves as a key mediator for providing the necessary attention and

care to a child with a disability. Although resilience has been widely studied, theoretical models specifically addressing maternal resilience in mothers of children with disabilities are almost nonexistent (Schwartz et al., 2024). This gap highlights the importance of developing and validating specific instruments to assess resilience in this population, considering the unique challenges faced by Peruvian mothers of children with disabilities (Checclo & Escudero, 2023; Tanta-Luyo et al., 2020). The Escala de Resiliencia Materna (ERESMA) was developed by Roque et al. (2009) in Mexico. The scale is grounded in an ecosystemic approach which emphasizes that resilience is a multi-dimensional variable and therefore requires personal and social mediators who can promote the mother's resilience or positive

adaptation to adverse situations, meaning it evaluates both the mother's resilient attributes and the quality of her surrounding environment (Roque et al. 2009). Thus, this scale consists of 45 items distributed across six dimensions: self-determination, spiritual faith, hopelessness, lack of partner support, limited resources to meet needs, and rejection of personal responsibility. Roque et al. (2009) incorporated these six dimensions into their maternal resilience scale. Self-determination is conceptualized as a core resilience characteristic; spiritual faith is treated as a positive mediator; and the remaining four dimensions—hopelessness, lack of partner support, limited resources to meet needs, and rejection of personal responsibility—are considered negative mediators.

Self-determination constitutes an essential process through which mothers make decisions, set goals, and regulate their actions to provide adequate care for their children with disabilities. This capacity for self-regulation and personal direction is fundamental for sustaining their emotional well-being and relational functioning in contexts of intensive caregiving (Mak et al., 2023). Similarly, spirituality functions as a protective resource that promotes resilience by offering meaning, hope, and positive coping mechanisms—an observation consistent with recent studies highlighting its role in families facing adversity (Pérez-García et al., 2021).

In contrast, risk factors such as hopelessness, lack of partner support, and economic and social limitations reduce mothers' adaptive capacity. Hopelessness is associated with increased psychological distress and negative perceptions about their children's future, thereby hindering their ability to sustain the caregiving role (Schwartz et al., 2024). The absence of spousal support and insufficient resources exacerbate this vulnerability, as they undermine emotional adjustment and heighten the subjective burden of caregiving (Alkhateeb et al., 2022).

In summary, the six identified dimensions obtained an overall Cronbach's alpha of .92, and Exploratory Factor Analysis showed that they explained 50.19% of the total variance. Based on this level of explained variance, hopelessness was identified as the most influential factor in the scale, likely because many mothers experience suffering and feelings of emptiness when thinking about their child's future (Roque et al., 2009).

Due to the strong psychometric indicators reported, several studies have used this scale. A similar pattern is observed in Peru. However, there is a lack of studies assessing the psychometric properties of the instrument in samples of Peruvian mothers of children with disabilities. Tumbaco et al. (2017) conducted a study that included the content validity of the ERESMA scale, reported a reliability coefficient of .919 in a correlational study on parental adjustment. The closest effort is the thesis by Lozano and Romero (2022), conducted with 209 mothers of children with intellectual disabilities, which reported validity based on internal structure and convergent validity across five ERESMA factors, explaining 42.5% of the variance, with positive and significant correlations among factors. Reliability ranged from .74 to .88, indicating good psychometric performance.

Although there is a history of psychometric validation, it is limited for various reasons. In the study by Tumbaco et al. (2017), psychometric evaluation was not the main objective of the re-

search, so the analysis was restricted solely to content validity. For their part, Lozano and Romero (2022) applied the instrument in a Peruvian context marked by a health crisis, a situation that led to a reduction in items due to a lack of contextual relevance, which restricts the scope and interpretation of the results. Likewise, in that study, Exploratory Factor Analysis (EFA) was used, despite the existence of a previously established factor model (Roque et al., 2009), so methodologically, Confirmatory Factor Analysis (CFA) is preferred. In turn, the analysis of the internal structure through EFA led to the elimination of one dimension, altering the original factorial structure proposed by Roque et al. (2009).

Based on these findings, the need emerged to conduct a study evaluating the psychometric properties of the ERESMA Scale among Peruvian mothers of children with disabilities.

## METHODS

### Design

The design corresponds to an instrumental study, as its primary purpose is to gather psychometric evidence for a measurement instrument (Ato et al., 2013).

### Participants

The sample was made up of 243 mothers of children with disabilities and their ages ranged from 23 to 76 years ( $M = 43.16$ ). The 70.8% of them resided in the province of Arequipa and 29.2% in the province of Puno, both located in the south of Peru. According to the mothers' self-reports, it is observed that regarding their marital status, 40.5% were married, 28.5% were unmarried but cohabited; 23.8% were single mothers, 3.8% were divorced and 3.4% were widowed. Regarding the characteristics of the children of the mothers evaluated, 42.7% had intellectual disabilities, 29.7% had autism spectrum disorders, and 15.3% had multiple disabilities. The degree of disability was mostly mild (36.7%) and moderate (33.3%), although 22.9% had a severe level of disability. Most children with disabilities among those evaluated were male (61.4%). Non-probabilistic convenience sampling was performed (Otzen & Manterola, 2017). Additionally, a post hoc statistical power analysis was conducted using Arifin's (2025) calculator. The computation entered the RMSEA value obtained in the present study (.024), 804 degrees of freedom, and a p-value of .05; revealing that the sample of 243 participants yielded a statistical power of 85%.

### Instruments

*Ad Hoc Sociodemographic:* A brief ad hoc form was administered to obtain sociodemographic data on the participants. This included information about the mothers: age, place of residence and marital status; as well as information about their children: age, gender, type and degree of disability.

*Maternal Resilience Scale (ERESMA):* The scale developed by Roque et al. (2009) assesses resilience in mothers of children with disabilities. It consists of 45 items organized into six correlated factors and is administered using a Likert-type response format ranging from 1 = Never to 5 = Always (Roque et al., 2009). The factorial model includes the following six dimensions: Hopelessness (13 items), Self-Determination (9 items),

Lack of Partner Support (7 items), Limited Resources to Meet Needs (6 items), Spiritual Faith (5 items), and Rejection of Personal Responsibility (5 items). As noted in the introduction, this instrument demonstrates adequate psychometric properties in terms of validity and reliability (Roque et al., 2009). For the present study, the instrument was culturally adapted, the main change was the replacement of the terms "child with problems" or "troubled child" to "child with a disability," so that all items were easier to understand for the sample evaluated.

### Procedure

First, contact was established with various associations and Special Basic Education Centers (CEBEs) located in the cities of Puno and Arequipa. These institutions were sent a formal invitation letter explaining the objectives and scope of the study and requesting their participation. The letters were carefully written to highlight the importance of the research and its potential benefits for the educational community and the families involved. Once responses were received from the associations and CEBEs that agreed to participate, detailed coordination was carried out to schedule the dates and times for the administration of the research instruments. These arrangements were managed individually, considering the availability and specific needs of each institution, with the aim of ensuring an orderly process that respected the time and dynamics of the participants. In addition, preparatory meetings were held with institutional representatives to clarify any questions regarding the procedures.

After completing the data collection process, the instruments were scored and entered an Excel database for subsequent analysis. Before the psychometric analysis, a small number of participants ( $n=13$ ) were identified who did not respond to any items on the instrument. Since this absence of data was total and did not depend on other observed variables or the latent variable, these cases were considered Missing Completely at Random (MCAR) and were excluded from the analyses, using listwise deletion, to ensure the integrity of the data matrix required for the psychometric procedures conducted.

### Data Analysis

The analyses were performed with JASP software version 19.3.0 (JASP Team, 2024). The statistical analysis was carried out in stages: In the first stage, the content validity of the 45 items was analyzed by five expert judges, who rated the consistency, relevance, and clarity of the items on a scale of 1 (does not meet the criteria) to 4 points (fully meets the criteria). Aiken's V coefficient was applied to determine whether the items had good content validity. Considering the number of judges, a confidence level of 95% and a flexible eligibility criterion (lower limit greater than 0.5) were used.

In the second stage, Confirmatory Factor Analysis (CFA) was performed on the original factor structure of ERESMA (Roque et al., 2009), excluding the items eliminated in the first stage. The CFA was conducted using the Weighted Least Squares Mean and Variance adjusted (WLSMV) given the lack of multivariate normality of the data (Hair et al., 2010). Likewise, the goodness-of-fit indices used were: the normalized chi-square ratio ( $\chi^2/$

dg) with a value lower than 3, Root Mean Square Error of Approximation ( $\text{RMSEA} \leq .08$ ) and its 90% confidence interval ( $\text{CI} 90\%$ ); Standardized Root Mean Square Residual ( $\text{SRMR} \leq .08$ ); Comparative Fit Index (CFI) and Tucker-Lewis Index (TLI), both greater than .90 (Browne & Cudeck, 1993; Hu & Bentler, 1999; McDonald & Ho, 2002). Finally, in the last stage, reliability was estimated using the internal consistency method with McDonald's omega coefficient ( $\omega \geq .70$ ) (Hair et al., 2010).

### Ethical Considerations

The protocol was approved by the Institutional Ethics Committee of the "Universidad Católica San Pablo" (Acta 56.CEPI. UCSP.2024). All participants were informed of the study and signed a consent form prior to participation. The essential aspects of the Ethical Principles of Psychologists and Code of Conduct of the American Psychological Association (2017) were duly considered. Prior to responding to the items, the parents of children with disabilities were presented with an informed consent statement embedded as a specific item requiring their approval. It was emphasized that their participation was entirely voluntary, and that all information provided would be treated with the strictest confidentiality.

## RESULTS

### Descriptive Analysis

Table 1 shows the Aiken's V coefficient and their 95% confidence interval limits. Of the 45 items evaluated, only 41 were identified as valid. Items 3, 25, 33, and 34 were invalid because the lower limit of Aiken's V was less than 0.5. However, after an expert qualitatively analyzed these invalid items, it was decided to keep items 3 and 33 because they are theoretically relevant, and delete items 25 and 34 because in both cases the wording is ambiguous and they are not contextualized to mothers of children with disabilities; however, due to the number of items per dimension, the theoretical model remains consistent.

Table 2 shows the 43 items of the ERESMA, in which items 9, 16, 19, 27, 37, 39, and 41 show a floor effect, given that they have a noticeable tendency toward low scores. Likewise, items 1, 11, 17, 18, 22, 25, 27, and 37 do not have a normal distribution, as their skewness and kurtosis values are outside the range [-1.5; 1.5] (Ferrando & Anguiano-Carrasco, 2010; Pérez & Medrano, 2010). Therefore, the CFA was conducted using the WLSMV estimator.

Table 3 shows the standardized loadings of each item of the scale. Factor loadings range from  $\lambda=.309$  to  $\lambda=.967$ , demonstrating that the items are adequately related to their respective factors, except for item 3 ("The success I have with my child with a disability is mainly due to others"). This item had to be eliminated because it had a very small factor loading ( $\lambda=.100$ ;  $p=.197$ ). Furthermore, the results of the CFA showed a good fit of the factorial structure of six correlated factors of the ERESMA scale:  $\chi^2(804) = 916.222$ ,  $p = .004$ ,  $\text{CFI} = .985$ ,  $\text{TLI} = .984$ ,  $\text{RMSEA} = .024$ , and  $\text{SRMR} = .072$ . These indices confirm the good functioning of the original factorial model of the ERESMA in a sample of mothers of children with disabilities in Peru. Likewise, reliability had adequate values for the factors of self-determination ( $\omega = .727$ ), hopelessness ( $\omega = .826$ ), spiritual faith ( $\omega = .763$ ), lack

of partner support ( $\omega = .836$ ), and limited resources to meet needs ( $\omega = .785$ ); while it had borderline values for the factor of rejecting of personal responsibility ( $\omega = .651$ ).

Table 4 shows the correlation coefficients between the dimensions of ERESMA. There is a direct and statistically significant relationship between self-determination and spiritual faith ( $r = .567$ ;  $p < .001$ ), while there is an inversely proportional and

statistically significant relationship with hopelessness ( $r = -.387$ ;  $p < .001$ ), rejection of personal responsibility ( $r = -.403$ ;  $p < .001$ ), lack of partner support ( $r = -.273$ ;  $p < .001$ ), and limited resources to meet needs ( $r = -.238$ ;  $p < .001$ ). Likewise, the direction of the correlations confirms the type of mediator of the dimensions (positive and negative), which is consistent with the theoretical model of Roque et al. (2009) on the presence of me-

**Table 1.** Aiken's V coefficient and 95% confidence intervals of the items of ERESMA

Items	Mean	Aiken's V	95% CI		Decision
			Lower	Upper	
1	3.7	.900	.660	.977	valid
2	3.9	.967	.747	.997	valid
3	3.1	.700	.448	.870	invalid
4	3.8	.933	.702	.988	valid
5	3.5	.833	.584	.947	valid
6	3.6	.867	.621	.963	valid
7	3.8	.933	.702	.988	valid
8	3.8	.933	.702	.988	valid
9	3.8	.933	.702	.988	valid
10	3.7	.900	.660	.977	valid
11	3.8	.933	.702	.988	valid
12	3.8	.933	.702	.988	valid
13	3.7	.900	.660	.977	valid
14	3.5	.833	.584	.947	valid
15	3.5	.833	.584	.947	valid
16	3.7	.900	.660	.977	valid
17	3.8	.933	.702	.988	valid
18	3.8	.933	.702	.988	valid
19	3.7	.900	.660	.977	valid
20	3.9	.967	.747	.997	valid
21	3.9	.967	.747	.997	valid
22	3.5	.833	.584	.947	valid
23	3.8	.933	.702	.988	valid
24	3.9	.967	.747	.997	valid
25	3.1	.700	.448	.870	invalid
26	3.4	.800	.548	.930	valid
27	3.7	.900	.660	.977	valid
28	3.9	.967	.747	.997	valid
29	3.7	.900	.660	.977	valid
30	3.3	.767	.514	.911	valid
31	3.5	.833	.584	.947	valid
32	3.7	.900	.660	.977	valid
33	3.2	.733	.480	.891	invalid
34	2.3	.433	.223	.671	invalid
35	3.5	.833	.584	.947	valid
36	3.7	.900	.660	.977	valid
37	3.8	.933	.702	.988	valid
38	3.7	.900	.660	.977	valid
39	3.8	.933	.702	.988	valid
40	3.7	.900	.660	.977	valid
41	3.7	.900	.660	.977	valid
42	3.8	.933	.702	.988	valid
43	3.8	.933	.702	.988	valid
44	3.8	.933	.702	.988	valid
45	3.3	.767	.514	.911	valid

diating factors to measure the resilience of mothers of children with disabilities.

## DISCUSSION

The Maternal Resilience Scale (ERESMA) aims to assess maternal resilience in mothers of children with disabilities. The present study was based on the original model proposed by Roque et al. (2009). Similar descriptive patterns were observed regarding the diagnoses of the children, with the highest proportion presenting intellectual disability, followed by autism spectrum

disorder and multiple disabilities. Regarding linguistic and cultural adaptation of the scale, the main change was the standardization of the terms used in all items to refer to children with disabilities to make the scale clearer for mothers. Lozano and Romero (2022) also adapted the items of the scale; however, they decided to remove the term disability from all items because they considered it redundant, given that this specification was already included in the title and premise of the scale. Likewise, these authors mention that using the term disability is harmful and that reducing its use is beneficial to

**Table 2.** Descriptive statistics of the items of ERESMA

n= 243	Mean	SD	Skewness	Kurtosis
ERE 1	3.551	0.772	-2.187	5.665
ERE 2	1.424	1.120	0.353	-0.377
ERE 3	1.531	1.214	0.249	-0.750
ERE 4	1.251	1.160	0.459	-0.633
ERE 5	3.207	1.134	-1.414	1.164
ERE 6	1.477	1.415	0.470	-1.011
ERE 7	2.062	1.286	0.002	-0.831
ERE 8	1.687	1.147	0.105	-0.548
ERE 9	0.695	0.926	1.209	0.888
ERE 10	1.148	1.290	0.862	-0.290
ERE 11	3.362	0.891	-1.627	2.855
ERE 12	2.012	1.062	-0.087	-0.008
ERE 13	1.588	1.284	0.463	-0.687
ERE 14	3.045	0.984	-0.642	-0.409
ERE 15	1.494	1.158	0.401	-0.481
ERE 16	0.753	1.097	1.299	0.768
ERE 17	3.309	0.991	-1.703	2.762
ERE 18	1.617	1.294	0.327	-0.786
ERE 19	0.650	0.930	1.560	2.258
ERE 20	1.366	1.013	0.273	-0.236
ERE 21	1.037	1.165	0.828	-0.273
ERE 22	3.481	0.937	-2.040	3.835
ERE 23	1.918	1.244	0.105	-0.714
ERE 24	3.029	1.030	-0.881	0.191
ERE 25	3.44	0.881	-1.681	2.706
ERE 26	1.021	1.154	0.842	-0.258
ERE 27	0.587	1.016	1.738	2.299
ERE 28	3.321	0.907	-1.250	1.108
ERE 29	3.239	0.918	-1.105	0.936
ERE 30	1.593	1.254	0.365	-0.749
ERE 31	2.074	1.069	-0.046	-0.092
ERE 32	2.971	1.002	-0.713	-0.033
ERE 33	3.259	1.014	-1.187	0.538
ERE 34	2.189	0.990	-0.156	0.321
ERE 35	1.704	1.140	0.315	-0.269
ERE 36	1.588	1.058	0.188	-0.408
ERE 37	0.704	1.103	1.502	1.319
ERE 38	1.272	1.114	0.388	-0.536
ERE 39	0.893	1.228	1.177	0.338
ERE 40	3.082	1.165	-1.284	0.849
ERE 41	0.872	1.201	1.215	0.409
ERE 42	3.202	1.039	-1.327	1.339
ERE 43	1.185	1.224	0.663	-0.556

avoid any hint of a possible pejorative or offensive connotation for participants (Lozano & Romero, 2022). Likewise, these authors mention that using the term disability is harmful and that reducing its use is favorable to avoid any hint of a possible pejorative or offensive connotation for participants. However, according to the United Nations (UN) International Convention on the Rights of Persons with Disabilities, it is appropriate to use the term person with a disability (or in this case, child with a disability) because the emphasis remains on the person and

the descriptive term is not used as a noun (Ávila & Rivas, 2022). In that sense, both versions are appropriate for use in another research.

Regarding the content validity, item 25 ("It is impossible to count on the support of others when I am in trouble.") and 34 ("It's hard to feel accepted by my partner.") were removed because they did not meet the minimum acceptable criteria, and its wording was ambiguous. On the other hand, Lozano and Romero (2022) removed two other items. Item 4 was re-

**Table 3.** Factorial Model and Reliability of ERESMA

Factor	Item	Loading	p	95% CI		$\omega$
				Lower	Upper	
Self-determination	ERE 1	.461	< .001	.317	.605	.727
	ERE 11	.488	< .001	.335	.641	
	ERE 14	.351	< .001	.191	.511	
	ERE 17	.608	< .001	.440	.777	
	ERE 24	.309	< .001	.145	.472	
	ERE 29	.413	< .001	.265	.562	
	ERE 32	.355	< .001	.188	.522	
	ERE 40	.717	< .001	.578	.856	
	ERE 42	.391	< .001	.225	.556	
Hopelessness	ERE 2	.516	< .001	.351	.680	.826
	ERE 4	.565	< .001	.405	.726	
	ERE 8	.780	< .001	.646	.914	
	ERE 12	.647	< .001	.510	.785	
	ERE 15	.602	< .001	.452	.752	
	ERE 20	.479	< .001	.333	.625	
	ERE 23	.615	< .001	.452	.778	
	ERE 27	.533	< .001	.381	.685	
	ERE 31	.495	< .001	.344	.646	
	ERE 34	.631	< .001	.497	.764	
	ERE 38	.617	< .001	.453	.781	
	ERE 41	.568	< .001	.425	.710	
	ERE 43	.479	< .001	.311	.646	
Spiritual faith	ERE 5	.504	< .001	.308	.701	.763
	ERE 22	.665	< .001	.493	.837	
	ERE 25	.459	< .001	.315	.603	
	ERE 28	.703	< .001	.567	.838	
	ERE 33	.608	< .001	.453	.762	
Reject personal responsibility	ERE 9	.473	< .001	.327	.620	.651
	ERE 19	.496	< .001	.348	.645	
	ERE 26	.714	< .001	.560	.868	
	ERE 36	.594	< .001	.443	.746	
Lack of partner support	ERE 6	.780	< .001	.583	.977	.836
	ERE 10	.843	< .001	.679	1.008	
	ERE 16	.818	< .001	.670	.966	
	ERE 21	.856	< .001	.681	1.030	
	ERE 37	.794	< .001	.619	.968	
	ERE 39	.907	< .001	.748	1.065	
Limited resources to meet needs	ERE 7	.818	< .001	.631	1.005	.785
	ERE 13	.892	< .001	.727	1.058	
	ERE 18	.967	< .001	.815	1.12	
	ERE 30	.574	< .001	.379	.770	
	ERE 35	.851	< .001	.709	.993	

Note. Load = factor loadings;  $\omega$  = McDonald's  $\omega$

moved due to its high level of emotional impact in the context of COVID-19, while item 28 was removed because the authors argue that, at present, there has been a shift from viewing people with disabilities from a model of dispensability to a social model, which removes blame and total responsibility from the person with a disability. However, in our study, none of these items generated evidence for their removal.

Concerning internal structure, discrepancies were found with the five-factor model proposed in Peru by Lozano and Romero (2022); they combined the items corresponding to the dimensions of hopelessness and rejection of personal responsibility into a single factor, which is understandable to a certain extent because the first one can generate the second one, but it does not agree with the original model by Roque et al. (2009) and the results of this study. Furthermore, these authors also eliminated items 26 and 43 due to their low factor loadings and items 14 and 27 due to the presence of cross loadings (Lozano & Romero, 2022). In the present study, these problems with factor loadings did not arise, which could be due to the characteristics of the sample (types of disability) as well as the timing and context in which both studies were conducted. It should be noted that the present study was carried out when the COVID-19 health crisis was already under control in Peru.

With respect to correlations among variables, the expected directional patterns were confirmed: positive associations emerged with the dimensions of self-determination and spiritual faith, and negative associations with hopelessness, lack of partner support, limited resources to meet needs, and rejection of personal responsibility. Finally, the reliability coefficients for most dimensions were acceptable, with values between .70 and .90 (Campos-Arias & Oviedo, 2008), except for the dimension of rejection of personal responsibility. Therefore, the results of this study provide only preliminary support for the instrument's validity and reliability. However, the importance of ERESMA lies in the fact that it allows for the assessment of maternal resilience and its mediators for subsequent educational intervention aimed at improving it, so that mothers have the necessary resources to adapt positively to adverse situations, can care for their children with disabilities in the best possible way, and can also take care of their own personal well-being (Roque et al., 2009).

### Limitations

Nevertheless, although the scale shows adequate psychometric evidence, it is important to acknowledge certain limitations. A cross-sectional design was considered; the use of non-probabilistic sampling and possible self-selection bias affects the ex-

ternal validity of the study. Difficulties related to administration time were also observed, which prevented the establishment of external validity; therefore, there are only two sources of psychometric validity. Moreover, although two Peruvian cities were included, it remains necessary to expand future psychometric evaluations by incorporating greater heterogeneity in the characteristics of mothers caring for a child with a disability.

### Conclusion

Based on the findings, it is concluded that ERESMA is an instrument with evidence of content and internal structure validity, but with questionable reliability. Therefore, interpretations about maternal resilience in mothers of children with disabilities in Peru should be made with caution, and further psychometric research is required, working with larger samples and they are encouraged to compare the five- and six-factor models to determine the best fit and to examine whether differences emerge based on type or degree of disability. Despite this, it should be noted that the present study constitutes the first paper to establish the psychometric properties of the scale in a heterogeneous disability sample.

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### AUTHORS' CONTRIBUTION

Milagros Cahuana Cuentas: Critical revision of the manuscript, drafting of the manuscript, Data collection, Approval of its last version, Obtaining funding, Conception of the manuscript

Candy J. Céspedes Quispe: Critical revision of the manuscript, Analysis and interpretation of data

Renzo Rivera: Data collection, Data collection, Analysis and interpretation of data, Drafting of the manuscript

Walter L. Arias Gallegos: Drafting of the manuscript

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### CONFLICT OF INTEREST

The authors declare that there were no conflicts of interest in the collection of data, analysis of information, or writing of the manuscript.

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Not applicable.

**Table 4.** Correlation between the dimensions of ERESMA

Variable	1	2	3	4	5	6
1. Self-determination	-					
2. Hopelessness	-.387***	-				
3. Spiritual faith	.567***	-.300***	-			
4. Reject personal responsibility	-.403***	.656***	-.347***	-		
5. Lack of partner support	-.273***	.431***	-.127	.383***	-	
6. Limited resources to meet needs	-.238***	.645***	-.169**	.372***	.505***	-

Note. We used Pearson correlation coefficient. \* p < 0.05. \*\* p < 0.01. \*\*\* p < 0.001.

## REVIEW PROCESS

This study has been reviewed by two reviewers in double-blind mode. The editor in charge was David Villarreal-Zegarra. The review process is included as supplementary material 1.

## DATA AVAILABILITY STATEMENT

The authors attach the database as supplementary material 2.

## DECLARATION OF THE USE OF GENERATIVE ARTIFICIAL INTELLIGENCE

We used DeepL to translate specific sections of the manuscript and Grammarly to improve the wording of certain sections. The final version of the manuscript was reviewed and approved by all authors.

## DISCLAIMER

The authors are responsible for all statements made in this article.

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## *Validación de la Escala de Resiliencia Materna (ERESMA) en madres de niños con discapacidad*

### **RESUMEN**

**Introducción:** La resiliencia materna es una variable crucial para las madres de hijos con discapacidad. Por lo que disponer de instrumentos con modelos teóricos basados en la comprensión de esta condición son de gran relevancia. **Objetivo:** Analizar la validez y confiabilidad de la Escala de Resiliencia Materna (ERESMA) en madres peruanas de hijos con discapacidad. **Método:** El estudio respondió a un diseño instrumental, se evaluó a una muestra de 243 madres de hijos con discapacidad, sus edades oscilaron entre 23 y 76 años ( $M = 43.16$ ) y pertenecientes a las provincias de Arequipa y Puno. Los diagnósticos de sus hijos fueron mayoritariamente discapacidad intelectual (42.7%), Trastorno del Espectro Autista (15.3%) y discapacidad múltiple (15.3%). **Resultados:** Se confirmó que la estructura original de seis factores posee adecuados índices de bondad de ajuste:  $\chi^2(804) = 916.222$ ,  $p = .004$ , CFI = .985, TLI = .984, RMSEA = .024, and SRMR = .072. Asimismo, los resultados de consistencia interna utilizando el coeficiente omega son adecuados para la autodeterminación ( $\omega = .727$ ), desesperanza ( $\omega = .826$ ), fe espiritual ( $\omega = .763$ ), falta de apoyo de la pareja ( $\omega = .836$ ), y recursos limitados ( $\omega = .785$ ); mientras que se obtuvieron valores limítrofes en el factor de rechazar la responsabilidad ( $\omega = .651$ ). **Conclusión:** La escala ERESMA en madres de hijos con discapacidad en Perú tiene suficientes evidencias de validez y confiabilidad para garantizar la pertinencia de su aplicación.

**Palabras claves:** Luchas religiosas, luchas espirituales, ansiedad, depresión, bienestar.