Received: 3 July 2023 | Revised: 22 April 2024 | Accepted: 16 June 2024

DOI: 10.1111/fare.13078

RESEARCH

Family Relations
Interdisciplinary Journal of Applied Family Science

The Walsh Family Resilience Questionnaire: Validity evidence from Portugal

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Funding information
Fundação para a Ciência e a Tecnologia, Grant/Award Numbers: CPCA/A0/7417/2020, SFRH/BD/118226/2016

Correction added on 23 September 2024, after first online publication: ORCID has been updated for authors Morais and Sinval. ORCID has been added for author Leal

Abstract

Background: Family resilience refers to a family's capacity to face and manage adversities, emerging as a stronger and more resourceful unit. A family system approach enlarges the lens to the broad relational network, identifying potential resources for resilience within the immediate and extended family. This approach emphasizes a family's innate ability to adapt in the face of adversities.

Objective: This study aims to test the psychometric properties of the Walsh Family Resilience Questionnaire (WFRQ) using a sample of Portuguese caregivers with children aged between 10 and 15 years.

Method: A total of 267 caregivers of children aged 10 to 15 years completed a sociodemographic questionnaire and the WFRQ. Analyses were performed to evaluate the WFRQ's validity evidence based on the internal structure (i.e., dimensionality and reliability) and on its relationship to other variables.

Results: The findings supported a 31-item version of the WFRQ with one third-order latent factor, three second-order factors, and nine first-order factors for the Portuguese population. The WFRQ exhibited satisfactory validity evidence based on the internal structure and relation to other variables.

Conclusion: Overall, the results of this study demonstrate the suitability of the WFRQ as a holistic measure to gauge resilience at the family level, going beyond individual assessments.

Implications: This instrument holds significant utility in family resilience research and clinical interventions involving families.

KEYWORDS
family functioning, family resilience, Portuguese population, psychometrics properties, Walsh Family Resilience Questionnaire (WFRQ)

Portugal is among the countries with lower subjective well-being (Vala & Torres, 2006) compared with other European countries (Lima & Novo, 2006). The experience of a pandemic and economic crises can exacerbate subjective and family well-being. Moreover, regardless of a country's specific circumstances, all families go through adversities and the various stages of the family life cycle. These inherently present challenges that require strategies and resources to overcome them and maintain positive functioning (Alarcão, 2000; Walsh, 2003).

Boundaries, roles, and family dynamics are constantly being redefined because of the changes experienced (Relvas, 2000). For this reason, flexibility on the part of families is necessary to adapt to the changes at different life stages (Walsh, 2003). It is therefore crucial to study family resilience and have a dynamic model that allows us to assist families throughout their life cycles. Walsh's (2016a) framework is centered on the innate capacity of families to evolve and engage in self-healing when confronted with adversities. Promoting resilience is likely to have a positive impact on the well-being of individuals, families, and communities by helping mitigate the consequences of stressful circumstances (Duncan et al., 2021).

As resilience has gained increasing attention from social scientists, policymakers, and public and private organizations, it is essential to ensure the availability of reliable and valid assessment tools for measuring both resilience and family functioning (A. McDonald, 2013; Simon et al., 2005). The absence of adapted instruments to explore these concepts within the Portuguese population underscores the significance of this research endeavor. The present study follows Walsh's (2016b) theoretical framework and aims to study psychometric properties of the WFRQ in a Portuguese sample.

LITERATURE REVIEW

Resilience

The concept of resilience has attracted significant focus in recent decades due to its crucial role in promoting well-being and psychological adjustment (Walsh, 2003). Resilience is a system's ability to adjust to disturbances threatening its functioning, viability, or development (Masten, 2014). It encompasses a repertoire of resources and capacities that empower individuals to respond appropriately to persistent challenges, facilitating recovery and fostering growth (Luthar et al., 2000; Masten & Cicchetti, 2016; Walsh, 2016a). The specific characteristics contributing to resilience remain a topic of ongoing debate (Duncan et al., 2021). Resilience is shaped by a multifaceted interplay of genetic and environmental factors and individual and social traits (Patterson, 2002).

The majority of instruments used to assess resilience primarily focus on individual characteristics—for example, the Connor–Davidson Resilience Scale (Connor & Davidson, 2003), the Brief Resilience Scale (Smith et al., 2008), the Resilience Scale (Wagnild & Young, 1993), and the Ego-Resiliency Scale (Block & Kremen, 1996). Few instruments target social and shared resources as factors contributing to resilience. These include the WFRQ (Walsh, 2016b); Family Sense of Coherence Scale (FSOC; Antonovsky & Sourani, 1988); Family Resilience Assessment Scale (Sixbey, 2005); The Individual, Family, and Community Resilience Profile (Distelberg et al., 2015); Family Adaptability and Cohesion Evaluation Scale (FACES IV; Olson, 2011); and Family Resilience Inventory (FRI; Burnette

et al., 2020). These instruments provide a broader perspective on resilience assessment by considering the influence of social and familial factors and individual characteristics.

Family resilience

Resilience has been conceptualized and studied at the individual level, with its study at the family level being more recent (Masten & Monn, 2015). In an evolving framework of family resilience, the significance of individual factors and personality traits is diminished, and more attention is given to the central role of key family processes that mediate adaptation (or maladaptation) for all individual members, their interpersonal relationships, and the overall family unit (Patterson, 2002). Family resilience comprises the processes and outcomes aimed at confronting and surmounting adversities while restoring equilibrium within the family system (Boss, 2001; Hawley & DeHaan, 1996). It fosters the growth of the family unit into a stronger and more resourceful entity (Walsh, 2012, 2016a).

A family systems orientation expands its perspective to encompass the extensive relational network, emphasizing the continuous interplay of multiple influences and identifying potential resources for resilience within the immediate and extended family (Bronfenbrenner, 1979; Ungar, 2004). This approach seeks to acknowledge and involve individuals who are, or have the potential to be, invested in the positive development and well-being of at-risk youth or adults (Walsh, 2016b). Identifying the critical processes inherent to family resilience can lead to advancements in clinical practice by facilitating the development of family interventions to enhance this capacity (Walsh, 2016a).

Family and ecological systems

Recognizing the pivotal role of family functioning and the positive impact of significant family relationships as protective factors for resilience has underscored the need to develop more intricate models that account for the family and other systems (Gómez & Klotiarenco, 2010). Consequently, models grounded in systemic and transactional approaches emerged (Wright et al., 2013).

According to ecological theory, the socioeconomic environment surrounding a family is a critical component that influences both individual and family perceptions of relationships (Bronfenbrenner, 1979). Some research has been conducted on sociodemographic factors in family functioning. Studies indicate a significant correlation between family functioning and socioeconomic status (SES; Byles et al., 1988), as well as aspects of the home environment, such as density and perceptions of the home setting, including crowding and distance (Thornock et al., 2019). Conversely, other studies do not reveal significant associations between SES and constructs related to family functioning (Baer, 1999; Maziade et al., 1987). These findings have been inconsistent and are subject to variation based on the studied population and the assessment instruments used (Baer, 1999; Maziade et al., 1987).

Advantages of Walsh's model

Given the complexity and the various social and economic changes that families have experienced, it is evident that no two families are identical, and a single model cannot adequately address the diversity of family structures and dynamics (Walsh, 2003).

Walsh's family resilience model (2016b) attempts to bridge gaps in the literature and clinical practice, offering several advantages. These include emphasizing the capacities and resources

that families possess during times of stress and crisis, a comprehensive assessment of family functioning that considers the current context, family values, structure, socioeconomic resources, and the life cycle stage. Additionally, this model adopts a dynamic perspective, recognizing that the processes optimizing family functioning can change over time and are not static. Moreover, it underscores the belief that all families have the potential for recovery and growth when confronted with a crisis.

Because of the insufficient empirical evidence to substantiate the resilience concept, Walsh (2003) employed a qualitative paradigm to develop her family resilience approach. Thus, it is pertinent to conduct empirical investigations to determine whether the author's model aligns with real-world situations or requires adjustments to become a valid and reliable framework and instrument for assisting families.

Walsh Family Resilience Questionnaire

On the basis of a meta-analysis of resilience and family functioning, Walsh (2016a) identified nine key transitional, interactive, and synergistic processes that facilitated family resilience and organized them into three factors: family belief systems, organizational patterns, and communication/problem-solving processes (Walsh, 2003). These processes are transactional because they are not static; they are dynamic and involve shifts between stability and change to address challenges. They are interactive because they mutually influence each other—for example, shared meaning-making enhances communication clarity, and effective communication processes, in turn, facilitate shared meaning-making. These key processes are synergetic because, together, they tend to strengthen resilience. Family belief systems foster shared efforts to confront adversities and surmount them through rituals, spiritual beliefs, and hope. These shared beliefs can enhance family functioning and encourage collective actions toward recovery. Family organization is essential for responding to difficulties, reorganizing or adjusting family roles and expectations, and mobilizing resources. Communication is vital for clarifying information during stressful events, acknowledging and exploring both negative and positive emotions, and enhancing problem-solving skills through proactive planning.

Walsh (2016b) developed an instrument based on her family resilience model, the WFRQ. Although it is a self-report instrument, this tool addresses family resilience holistically and systemically. Her family resilience framework provides not only the terminology but also the structure for rigorous construct measurement.

The WFRQ (Walsh, 2016b) can benefit patients, researchers, and therapists. Researchers will find it valuable for quantitatively measuring family resilience, advancing scientific research in this domain. Therapists will gain access to a tool that expeditiously assesses families and their unique needs, encompassing aspects such as family behaviors, shared beliefs and values, family structure, socioeconomic resources, current family challenges, and the family's capacity for learning. This comprehensive assessment can assist therapists in identifying issues that arise during family crises, offering support to families, fostering family resilience, and guiding the development of therapeutic goals and intervention plans (Walsh, 2016a). This instrument facilitates the observation of changes in family resilience processes over time, shedding light on the resources employed by the family in response to adversity. It enables the development of interventions tailored to the family's current needs and resources, monitors family dynamics, and tracks their progression throughout the intervention process (Haji et al., 2018; Nadrowska et al., 2022; Rocchi et al., 2017; Walsh, 2016a).

Given the diverse applications of the WFRQ, it has been adapted for use in various cultural contexts (Table S1 in the Supplemental Material) including Italian (Rocchi et al., 2017), Chinese (Li & Li, 2021; Mu & Zhang, 2009), Iranian (Haji et al., 2018), Polish (Nadrowska et al., 2022), Saudi (Al-Sheri, 2023), and Arabic (Sabah et al., 2021) samples. Several

adaptation studies have reported good psychometric properties of the instrument (Al-Sheri, 2023; Haji et al., 2018; Li & Li, 2021; Nadrowska et al., 2022; Rocchi et al., 2017; Sabah et al., 2021).

The psychometric studies in the different countries have not reached a consensus regarding the scale's dimensionality. However, most of the studies that have carried out a CFA report between 30 and 32 items and three factors or nine subfactors (Al-Sheri, 2023; Haji et al., 2018; Nadrowska et al., 2022; Sabah et al., 2021) in line with the original scale with three factors, nine subfactors, and 32 items (Walsh, 2016b). The studies that opted to carry out an exploratory factor analysis (EFA) show slightly different results: 26 items and three factors (Li & Li, 2021; Rocchi et al., 2017). For the Family Belief System factor, the reported Cronbach's alphas range from .70 (Sabah et al., 2021) to .94 (Haji et al., 2018; Nadrowska et al., 2022), whereas for the Family Organizational Process factor, values range from .70 (Haji et al., 2018) to .86 (Nadrowska et al., 2022), and for the Communication/Problem-Solving Processes factor, the alphas range from .73 (Sabah et al., 2021) to .94 (Nadrowska et al., 2022). Rocchi et al. (2017) reported .57 for the Utilization of Social Resources factor. However, this factor differs from the Communication/Problem-Solving Processes factor because it was derived from an EFA.

Hypotheses

This study examines the psychometric properties of the Portuguese version of the WFRQ, as no prior adaptations of this instrument to Portugal have been found. In line with the guidelines provided by the Standards for Educational and Psychological Testing (American Educational Research Association, American Psychological Association, National Council on Measurement in Education, 2014), two of the five possible sources of validity evidence are examined (i.e., based on test content, response processes, internal structure, relations to other variables, and consequences of testing).

The first source of validity is based on the internal structure, encompassing dimensionality and reliability of the scores. This source of evidence refers to the analysis and evaluation of the relationships among the test items and the underlying latent construct(s) (Rios & Wells, 2014). The second source of validity is based on the relations to other variables. This type of evidence investigates the relationships between the test scores and external criteria, such as other established measures or outcomes (Oren et al., 2014). It includes convergent and discriminant evidence, predictive evidence, and concurrent evidence, which help to demonstrate that the test measures the intended construct and is distinct from other related constructs (American Educational Research Association et al., 2014). Two hypotheses were formulated regarding the validity evidence based on the internal structure. Previous research has indicated that the WFRQ serves as a suitable instrument for measuring family resilience, presenting satisfactory validity evidence (Al-Sheri, 2023; Haji et al., 2018; Li & Li, 2021; Nadrowska et al., 2022; Rocchi et al., 2017; Sabah et al., 2021).

Hypothesis 1 assumes that the WFRQ will maintain its original dimensionality, comprising 32 items, a single third-order latent factor, three second-order latent factors, and nine first-order latent factors. Hypothesis 2 suggests that the WFRQ will demonstrate acceptable validity evidence in terms of score reliability. Hypothesis 3 posits that the WFRQ will demonstrate satisfactory validity evidence based on the relations to other variables. Resilience is intricately influenced by a dynamic interplay of individual, interpersonal, socioeconomic, and cultural factors (Walsh, 2016a). Therefore, it is plausible that socioeconomic resources, power, and privilege could foster positive psychological adjustment. We hypothesized that there would be a significant relationship between family resilience and sociodemographic factors: employment status, residential area (urban vs. rural), caregiver's age, and family household dimension. A

positive relationship between family resilience and employment status was expected (H3.1). Employment could provide financial stability and reduce stress, contributing to higher resilience.

The relationship between family resilience and residential area (urban vs. rural) could be positive or negative, depending on the area's specific characteristics (H3.2). Urban areas might offer more resources and support systems, enhancing resilience, whereas rural areas might foster stronger community ties and boost resilience.

We expected a positive relationship between family resilience and caregiver's age (H3.3). Older caregivers may have more life experience and coping skills, leading to higher resilience. We expected the relationship between family resilience and family household dimension to be positive (H3.4). Larger households might offer more support, enhancing resilience.

METHODS

Participants

This study is part of a large-scale research project involving parents, teachers, and children in adapting scales measuring family functioning and children's psychological adjustment in the Portuguese population. Considering that the extensive study aimed to capture the children's perspective on their adjustment, the following criteria were applied: (a) having Portuguese nationality and (b) having a child between 10 and 15 years old. In the present study, 267 caregivers (181 mothers, 73 fathers, two stepfathers, two stepmothers, one grandmother, one grandparent, and one civil godmother, six did not respond) from a community sample responded to the WFRQ and a sociodemographic questionnaire. Table 1 summarizes the demographic variables. Caregivers' ages ranged between 30 and 70 years old ($M = 44.72$; $SD = 4.807$). Most of the caregivers were married (77.2%), held a college degree (71.5%), were employed full time (85.8%), and lived in an urban area (84.3%).

Measures

Sociodemographic questionnaire

Caregivers completed a brief sociodemographic questionnaire before starting the study psychometric measures. The questionnaire collected information including age and relationship to the child (e.g., father, mother, stepfather, stepmother, friend, grandfather, grandmother, or not a family member). It also asked about marital status (e.g., married, in a relationship, single, divorced, or widowed), education level (e.g., middle school, high school, postsecondary education, bachelor's degree, postgraduate studies, master's degree, or Ph.D. degree), and employment status (e.g., full time, part time, unemployed, self-employed, retired, or student). Additional details were gathered regarding the partner's educational level, partner's employment status, and residential area (e.g., urban/big city, urban/suburbs of a big city, semiurban/small city, village, or rural). The questionnaire also covered family characteristics such as the child's age, the child's relationship with the partner, and family household composition. Professional status was reorganized for the subsequent analyses, retired people and students were removed from the sample, resulting in 1—employed (combining full time, part time, or self-employed) and 0—unemployed.

TABLE 1 Participants' sociodemographic characterization.

Variable	$N = 267$
Child's age (years)	
M (*SD*)	12.1 (1.70)
Mdn [min, max]	12.0 [9.00, 16.0]
Caregiver's age (years)	
M (*SD*)	44.7 (4.81)
Mdn [min, max]	44.0 [30.0, 70.0]
Missing	20 (7.5%)
Marital status	*n* (%)
Divorced	34 (12.7%)
In a relationship	7 (2.6%)
Married or cohabiting	206 (77.2%)
Single	14 (5.2%)
Widowed	4 (1.5%)
Missing	2 (0.7%)
Academic level, *n* (%)	
At least a college degree	191 (71.5)
High school or less	70 (26.2)
Other	5 (1.9)
Missing	1 (0.4)
Partner's academic level, *n* (%)	
At least a college degree	152 (56.9)
High school or less	60 (22.5)
No partner	36 (13.5)
Other	10 (3.7)
Missing	9 (3.4)
Employment status, *n* (%)	
1 = Full-time	229 (85.8)
2 = Part-time	8 (3.0)
3 = Unemployed	14 (5.2)
4 = Self-employed	5 (1.9)
5 = Retired	3 (1.1)
6 = Student	0 (0.0)
Missing	8 (3.0)
Partner's professional status, *n* (%)	
1 = Full time	198 (74.2)
2 = Part time	9 (3.4)
3 = Unemployed	9 (3.4)
4 = Self-employed	0 (0.0)
5 = Retired	2 (0.7)
6 = Student	3 (1.1)
Missing	46 (17.2)

(Continues)

TABLE 1 (Continued)

Variable	$N = 267$
Family household (persons)	
M (*SD*)	3.72 (1.01)
Mdn [min, max]	4.00 [1.00, 7.00]
Missing	13 (4.9%)
Residential area, *n* (%)	
1 = Urban/big city	139 (52.1%)
2 = Urban/suburbs of the big city	86 (32.2%)
3 = Semiurban/small city	20 (7.5%)
4 = Village	11 (4.1%)
5 = Rural	9 (3.4%)
Missing	2 (0.7%)

Walsh Family Resilience Questionnaire

The WFRQ comprises 32 items (Portuguese version is available in Table S2 in the Supplemental Material), which should be answered using an ordinal scale from 1 = *rarely/never* to 5 = *almost always*, followed by an open-ended question that asks participants to specify aspects that help them overcome stressful situations. The scale has no reversed items. This psychometric instrument was originally developed by Walsh (2016a) and is composed of three second-order factors (Belief System, Organizational Processes, and Communication/Problem-Solving Processes) and nine first-order factors, as each second-order latent factor is divided into three first-order factors: Making Meaning of Adversity (Items 1–4), Positive Outlook (Items 5–8), Transcendence and Spirituality (Items 9–13), Flexibility (Items 14–16), Connectedness (Items 17–19), Mobilize Social and Economic Resources (Items 20–22), Clarity (Items 23–25), Open Emotional Sharing (Items 26–28), and Collaborative Problem Solving (Items 29–32).

Procedures

The scale in this study underwent a translation and back-translation process. Initially, a team of psychology researchers individually translated the scale. Subsequently, a panel of experts convened to discuss and refine the translation of each item collectively, aiming to achieve the most accurate and appropriate version of the instrument. The researchers then independently reviewed each item on the scale, providing feedback to ensure face validity and making semantic and conceptual revisions to the questionnaire as necessary. After these individual assessments, the researchers engaged in group discussions to clarify their interpretations and elaborations of each item. Adjustments were made to the instrument to arrive at the final version for this study. To verify the accuracy of the translation, an external individual was tasked with the backtranslation of the instrument. This step was taken to ensure that the content and meaning of the items were faithfully preserved throughout the translation process (Supplemental Table S2). Furthermore, the author of the WFRQ was contacted via email to obtain authorization for the instrument's use in this study.

For this cross-sectional, observational study, a nonprobability convenience sample was collected. The questionnaires were collected in private schools and education centers in Lisbon and

Setúbal and online. Following the Declaration of Helsinki, all participants were given the option to elucidate any questions related to the study's content and procedures. The study was approved by Ispa University Institute's Ethics Committee (approval number D/001/03/2018). Caregivers completed the WFRQ and the sociodemographic questionnaire.

Data analysis

The statistical analysis was conducted using the statistical programming language *R* (R Core Team, 2024) via the integrated development environment, *RStudio* (Posit Team, 2024). The descriptive statistics were produced using the *skimr* package (McNamara et al., 2021). The *PerformanceAnalytics* package (Peterson & Carl, 2020) was used to estimate the kurtosis (ku) using the "sample excess" method (i.e., sample kurtosis of the distribution with a value of 3 being subtracted) and the skewness (sk) using the "sample" method (i.e., sample skewness of the distribution). The standard error of the mean was estimated using the *plotrix* package (Lemon, 2006), and the *sjstats* package (Lüdecke, 2021) was used to calculate the coefficient of variation (CV). The most frequent value (i.e., mode) was estimated by the *modeest* package (Poncet, 2019). The values of |sk| >3 and |ku| >7 were considered severe univariate normality violations (Finney & DiStefano, 2013; Marôco, 2021).

The confirmatory factor analysis (CFA) was used to assess the evidence of the WFRQ's original dimensionality. The scaled χ^2 statistic, the Tucker–Lewis index (TLI), the comparative fit index (CFI), the normed fit index (NFI), the standardized root mean square residual (SRMR), and the root mean square error of approximation (RMSEA) were used as goodness-of-fit indices. For TLI, CFI, and NFI values greater than .95 the estimates were considered good (Hu & Bentler, 1999). RMSEA and SRMR values less than .08 were considered good (Byrne, 2016). The scaled versions of CFI, TLI, NFI, and RMSEA (i.e., using the scaled version of the χ^2 statistic). To conduct the CFA, the weighted least squares means and variances (WLSMV) estimator (1983) was used via the *lavaan* package (Rosseel, 2012). The WLSMV is adequate for categorical indicators and thus does not require multivariate normality as an assumption. The CFA diagram was produced using the *semptools* package (Cheung & Lai, 2023) and the *semPlot* package (Epskamp, 2015).

The reliability of the first-order factors was assessed in terms of their internal consistency the following estimators were used: average variance extracted (AVE; Fornell & Larcker, 1981), $\alpha_{ordinal}$ (Zumbo et al., 2007), and ω (R. P. McDonald, 1999). Regarding the second-order latent factors, the following estimates of internal consistency were calculated: the proportion of variance of a composite score calculated from the observed indicators that are attributable to the second-order factor (ω_{L1}); the proportion of variance among first-order common factors that are attributable to the second-order factor (ω_{L2}); and the proportion of observed variance explained by the second-order factor after partialing out the uniqueness from the first-order factors ($\omega_{partial\ L1}$). For the third-order latent factor, the proportion of variance among second-order common factors that is attributable to the third-order factor (ω_{L3}) was estimated. Third-, second-, and first-order internal consistency estimates were calculated using the *semTools* package (Jorgensen et al., 2023). Estimates of internal consistency ≥.8 were considered adequate (Hair et al., 2019; Nunnally & Bernstein, 1994), and AVE values ≥.5 were considered adequate (Hair et al., 2019).

To assess the validity evidence based on relations to other variables, a structural model was tested using the *lavaan* package (Rosseel, 2012). A significance level of 5% was used ($\alpha = .05$).

RESULTS

Validity evidence based on the internal structure

The WFRQ's items were analyzed in terms of their distributional properties and did not present severe univariate normality violations (Table 2). None of the items presented absolute values of $|sk|$ >3 or absolute values of $|ku|$ >7. The maximum absolute *sk* and *ku* values were observed on Item 17 ($|sk| = 1.74$; $|ku| = 3.51$). A total of 22 items had the maximum possible range of answers (i.e., from 1 to 5), whereas 11 items had from 2 to 4.

Dimensionality

The original version of the WFRQ presented an adequate fit to the data, $n = 267$; $\chi^2_{(454)} = 887.039$; $p < .001$; CFI = .964; NFI = .930; TLI = .961; SRMR = .061; RMSEA = .060; $P_{(RMSEA \leq 0.05)} = .003$; 90% CI [.054, .066], after constraining the variance of two first-order factors (i.e., clarity, and flexibility) to 0.01 to avoid negative variance. However, Item 10 presented a very low factor loading ($\lambda_{item\ 10} = .079$), leading to its removal. Next, the reduced version (i.e., 31 items) was tested, which also revealed an acceptable fit to the data (Figure 1), $n = 267$; $\chi^2_{(424)} = 783.491$; $p < .001$; CFI = .969; NFI = .936; TLI = .966; SRMR = .056; RMSEA = .057; $P_{(RMSEA \leq 0.05)} = .028$; 90% CI [.051, .063], with the lowest factor loading belonging to Item 22 ($\lambda_i \geq .438$). All the structural weights between the second- and first-order factors were above .69 ($\gamma_i \geq 688$), and the structural weights between the third- and second-order factors presented values above .94 ($\gamma_i \geq .939$).

Reliability of the scores: Internal consistency

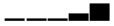
The reliability of the scores was assessed in terms of internal consistency. The $\alpha_{ordinal}$, ω, and AVE coefficients values ranged between acceptable and very good: Making Meaning of Adversity ($\alpha_{ordinal} = .79$; ω = .71; AVE = .50), Positive Outlook ($\alpha_{ordinal} = .88$; ω = .80; AVE = .68), Transcendence and Spirituality ($\alpha_{ordinal} = .82$; ω = .76; AVE = .56), Flexibility ($\alpha_{ordinal} = .80$; ω = .74; AVE = .61), Connectedness ($\alpha_{ordinal} = .80$; ω = .71; AVE = .62), Clarity ($\alpha_{ordinal} = .75$; ω = .69; AVE = .57), Open Emotional Sharing ($\alpha_{ordinal} = .82$; ω = .77; AVE = .61), and Collaborative Problem Solving ($\alpha_{ordinal} = .92$; ω = .88; AVE = .79), The exception was the Mobilize Social and Economic Resources dimension ($\alpha_{ordinal} = .58$; ω = .50; AVE = .32), which was not acceptable. In global terms, these results provide good evidence in terms of reliability for the WFRQ.

Regarding second-order factors, the estimates presented good estimates for all dimensions: Belief System ($\omega_{L1} = .92$; $\omega_{L2} = .98$; $\omega_{partial\ L1} = .94$), Organizational Processes ($\omega_{L1} = .83$; $\omega_{L2} = .92$; $\omega_{partial\ L1} = .89$), Communication/Problem-Solving Processes ($\omega_{L1} = .91$; $\omega_{L2} = .96$; $\omega_{partial\ L1} = .95$). The third-order latent factor, Family Resilience, also presented a good estimate ($\omega_{L3} = .97$).

Validity evidence based on relations to other variables

A structural model was tested correlating the WFRQ third-order latent variable (i.e., family resilience) with the residential area (1 = urban/big city or urban/suburbs of the big city or semiurban/small city; 0 = rural or village), employment status (1 = employed full time or part time or self-employed; 0 = unemployed), caregiver's age and family household to assess the

TABLE 2 Walsh Family Resilience Questionnaire item distributional properties.

Item	*M*	*SD*	Min	P_{25}	*Mdn*	P_{75}	Max	Histogram	*SEM*	CV	Mode	sk	ku
1	4.18	0.79	1	4	4	5	5		0.05	0.19	4	−0.75	0.32
2	3.81	0.77	1	3	4	4	5		0.05	0.20	4	−0.51	0.68
3	3.98	0.79	1	4	4	5	5		0.05	0.20	4	−0.66	0.52
4	3.85	0.82	1	3	4	4	5		0.05	0.21	4	−0.53	0.42
5	4.38	0.72	2	4	5	5	5		0.04	0.16	5	−0.96	0.41
Itm 6	4.38	0.74	2	4	5	5	5		0.05	0.17	5	−1.08	0.82
7	4.19	0.79	2	4	4	5	5		0.05	0.19	5	−0.59	−0.52
8	3.86	0.85	1	3	4	4	5		0.05	0.22	4	−0.44	−0.15
9	4.45	0.77	1	4	5	5	5		0.05	0.17	5	−1.52	2.36
10	2.44	1.37	1	1	2	4	5		0.08	0.56	1	0.51	−1.06
11	3.88	0.89	1	3	4	5	5		0.05	0.23	4	−0.46	−0.19
12	3.63	0.90	1	3	4	4	5		0.06	0.25	3	−0.15	−0.46
13	4.29	0.71	1	4	4	5	5		0.04	0.16	4	−0.82	0.94
14	4.16	0.73	2	4	4	5	5		0.04	0.18	4	−0.56	−0.02
15	4.08	0.79	2	4	4	5	5		0.05	0.19	4	−0.42	−0.54
16	4.43	0.67	2	4	5	5	5		0.04	0.15	5	−0.92	0.30
17	4.51	0.75	1	4	5	5	5		0.05	0.17	5	−1.74	3.51
18	4.26	0.76	2	4	4	5	5		0.05	0.18	4	−0.85	0.41
19	4.00	0.91	1	3	4	5	5		0.06	0.23	4	−0.54	−0.44
20	3.88	0.97	1	3	4	5	5		0.06	0.25	4	−0.74	0.40
21	3.97	0.89	1	3	4	5	5		0.05	0.23	4	−0.64	−0.13
22	2.87	1.29	1	2	3	4	5		0.08	0.45	3	0.00	−1.03
23	3.70	0.96	1	3	4	4	5		0.06	0.26	4	−0.77	0.66
24	4.11	0.76	2	4	4	5	5		0.05	0.18	4	−0.49	−0.23
25	4.34	0.80	1	4	4	5	5		0.05	0.18	5	−1.41	2.63
26	4.12	0.81	1	4	4	5	5		0.05	0.20	4	−0.81	0.59
27	4.00	0.84	1	4	4	5	5		0.05	0.21	4	−0.86	1.05

(Continues)

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TABLE 2 (Continued)

Item	*M*	*SD*	Min	P_{25}	*Mdn*	P_{75}	Max	Histogram	*SEM*	CV	Mode	sk	ku
28	4.38	0.71	1	4	4	5	5	▁▁▁▆▆	0.04	0.16	5	−1.23	2.26
29	4.13	0.71	2	4	4	5	5	▁▁▂▆	0.04	0.17	4	−0.45	−0.04
30	4.33	0.68	2	4	4	5	5	▁▁▂▆▆	0.04	0.16	4	−0.74	0.26
31	4.21	0.63	2	4	4	5	5	▁▁▁▆	0.04	0.15	4	−0.39	0.29
32	4.17	0.84	1	4	4	5	5	▁▁▂▆▆	0.05	0.20	4	−0.87	0.42

DV = coefficient of variation; ku = kurtosis; sk = skewness.

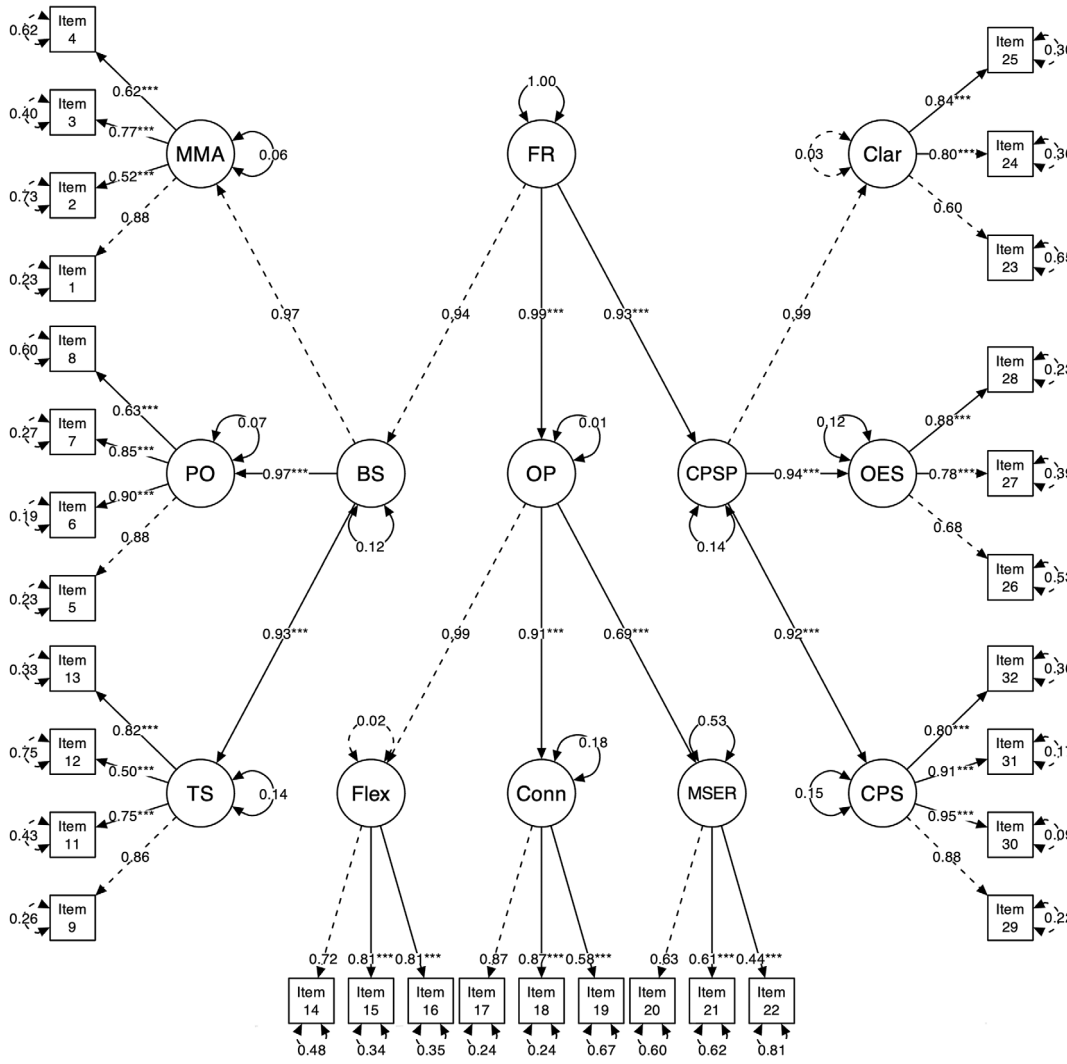

FIGURE 1 Walsh Family Resilience Questionnaire diagram (31 items).
Note. Dashed lines represent fixed parameters. BS = Belief System; Clar = Clarity; Conn = Connectedness; CPS = Collaborative Problem Solving; CPSP = Communication/Problem-Solving Processes; Flex = Flexibility; FR = Family Resilience; MMA = Making Meaning of Adversity; MSER = Mobilize Social and Economic Resources; OES = Open Emotional Sharing; OP = Organizational Processes; PO = Positive Outlook; TS = Transcendence and Spirituality.

validity of evidence based on the relation to other variables. After fixing the variance of the second-order latent factor *organizational processes* to 0.01 to avoid negative variance, the model presented adequate fit to the data, $n = 230$; $\chi^2_{(512)} = 785.276$; $p < .001$; CFI = .972; NFI = .923; TLI = .969; SRMR = .058; RMSEA = .048; $P_{(RMSEA \leq 0.05)} = .659$; 90% CI [.041, .055].

Table 3 presents the correlations between the structural model variables. The only variable that presented a statistically significant correlation with family resilience was family household dimension, $r_{FR,FH} = -.135$; $z = 2.198$; $p = .028$, revealing a weak positive association with family resilience scores.

TABLE 3 Structural model correlations ($n = 230$).

	Family resilience	Employment status	Residential area	Caregiver's age
Employment status	−.049 (.553)			
Residential area	.034 (.587)	−.053 (.792)		
Caregiver's age	−.047 (.438)	−.032 (.637)	.008 (.906)	
Family household	.135 (.028)	−.171 (<.001)	.019 (.871)	−.115 (.066)

Note. The *p* value is presented between parentheses.

DISCUSSION

This study examined the psychometric properties of the Portuguese version of the WFRQ. The findings suggest that the validity evidence of the 31-item, three second-order factors, and nine first-order factors of the Portuguese WFRQ is acceptable. Previous studies (Al-Sheri, 2023; Haji et al., 2018; Li & Li, 2021; Nadrowska et al., 2022; Rocchi et al., 2017; Sabah et al., 2021) have also shown that the WFRQ is an instrument with psychometric properties to measure family resilience.

The WFRQ presented a good fit to the data in the present sample with Portuguese caregivers of children and adolescents from 10 to 15 years old. The measure presented satisfactory values of internal consistency. In the present study, the WFRQ had 31 items and maintained one third-order factor, three second-order factors, and nine first-order subfactors. Item 10, "We draw on spiritual resources (religious or nonreligious) to help us cope well," was removed because of its low factor loading. The subfactor Transcendence and Spirituality included five items: four related to spirituality (addressing active family investment in transcendent beliefs and practices experienced in everyday situations; Pargament & Krumrei, 2009) and Item 10, which asks explicitly if families turn to spiritual resources (religious and nonreligious) to deal with situations.

Religiosity can be seen as a static and institutional construct consisting of an individual's or a group's search for the sacred in a traditional context (Zinnbauer & Pargament, 2005). In turn, spirituality is a functional, dynamic, and subjective construct based on experience, being an individual or group searching for universal truth and the meaning of existence (Zinnbauer & Pargament, 2005). Thus, it is suggested that in the present study's sample, the participants identified as spiritual, relying on spiritual beliefs, faith, and something transcendent. However, they did not identify themselves as religious or did not seek spiritual resources to deal with adversities.

In the original version of the WFRQ, there are no reverse-coded items, which could potentially lead to acquiescence bias. Acquiescence bias occurs when respondents tend to agree with statements, regardless of their content, skewing the results. Although there is no clear consensus on using reverse-coded items (Suárez-Alvarez et al., 2018), addressing the potential response biases in the WFRQ is important.

The reliability evidence was satisfactory (H2). This finding is in accordance with other studies that aimed to develop a cultural version of the WFRQ, which revealed adequate reliability evidence in terms of internal consistency (Al-Sheri, 2023; Karaminia et al., 2018; Li & Li, 2021; Nadrowska et al., 2022; Rocchi et al., 2017; Sabah et al., 2021). The internal consistency estimates were acceptable in almost all first-order factors except Mobilize Social and Economic Resources. Despite the lower than ideal internal consistency of the Mobilize Social and Economic Resources factor, the WFRQ demonstrated promising evidence of internal consistency.

The Mobilize Social and Economic Resources first-order factor, comprising Items 20 ("We can rely on the support of friends and our community"), 21 ("We have economic security to be able to get through hard times"), and 22 ("We can access community resources to help our

family through difficult times"; Walsh, 2016a), primarily refers to the capacity to garner support from social and institutional organizations (Rocchi et al., 2017). In the study of resilience, several factors may explain the differences in psychometric studies: (a) the complexity of the resilience construct (Windle et al., 2011); (b) resilience as a dynamic process, with cultural variations in its understanding and conception (Walsh, 2016b); (c) Portuguese people may mobilize social and community resources through spiritual resources, family rituals, and organizational and relational practices (such as support from faith congregations/clergy), which may overlap with other factors and subfactors (e.g., Belief System; Rocchi et al., 2017); (d) potentially lesser economic capacity and reduced access to community and social resources among the Portuguese population compared with the American population; (e) differences in language—the sentences in the Portuguese version may carry slightly different meanings than in the original version. These factors might have contributed to the less than optimal estimate of internal consistency of the Mobilize Social and Economic Resources first-order factor. In other words, the items that constitute this factor are less interrelated than is desirable.

The validity evidence based on the relations to other variables presented mixed findings. Employment status (H3.1), residential area (H3.2), and caregiver's age (H33) did not reveal a statistically significant link with family resilience, whereas the family household dimension did (H3.4). This suggests that family households with more members were associated with higher perceptions of family resilience.

Family resilience relationships with employment can sometimes be negative due to issues such as role strain, time limitations, work-related stress, and inconsistent work hours (Greenhaus & Beutell, 1985; Voydanoff, 2004). Balancing work and family obligations can lead to stress and diminished family resilience (Allen et al., 2000; Grzywacz & Marks, 2000). Furthermore, limited time for family bonding and the intrusion of work-related stress into family life can adversely affect family resilience (Bianchi & Milkie, 2010; Hammer et al., 2005). Recognizing that these factors can vary depending on individual situations, job features, and family dynamics is crucial (Byron, 2005; Hill, 2005). Still, they offer potential reasons for the negative association between family resilience and employment in certain cases (Ford et al., 2007; Masten, 2018; Walsh, 2016b).

Employment status can have mixed effects on family resilience, which may explain why no clear, strong correlation exists between having a job and family resilience. For example, self-employment can be linked to risk and instability (Carroll & Mosakowski, 1987) because the individual is accountable for their financial situation and the success or failure of the business. On the other hand, full-time, long-term employment can improve mental health and provide economic stability (Zabkiewicz, 2010). The impact of variables in family resilience, such as employment status and residential area, varies within sample, instruments, context, and cultural differences (Baer, 1999; Maziade et al., 1987).

Walsh (2016a) stated that resilience involves a dynamic interplay of individual, interpersonal, socioeconomic, and cultural factors. Therefore, socioeconomic resources could be one of the many factors contributing to family resilience.

The results also indicated that the area of residence (urban or rural) was not associated with family resilience. Different regions' distinct lifestyles and community dynamics could account for this finding (Leyshon & Bull, 2016). Living in urban areas can offer advantages for families with children, including greater educational opportunities, diverse extracurricular activities, and better health care facilities (Wells et al., 2010). Additionally, well-developed public transportation systems make commuting easier (Newman & Kenworthy, 2015), while exposure to social and cultural diversity might enrich children's perspectives (Kuo, 2010). Furthermore, cities provide various entertainment and leisure options, creating ample opportunities for family bonding and educational experiences (Packer & Ballantyne, 2016). Rural living areas can have limited resources and opportunities available in rural areas compared with urban settings (Singh & Siahpush, 2014). On the other hand, a strong sense of community, resourcefulness, and lower

stress levels can make rural living advantageous for fostering family resilience (Bauer & Dolan, 2011). Rural and urban areas have unique advantages and disadvantages concerning family resilience (Halfacree, 2012). The potential explanation for the lack of association between the caregiver's age and family resilience could be that resilience is less about age and more about the caregiver's qualities, skills, and resources. Every caregiver's situation is unique, and age might not necessarily determine their ability to cope with challenges and foster resilience within their family.

Family resilience being positively associated with the family household dimension might be explained by the increased social support and shared responsibilities in larger households. A larger family means that more individuals can contribute to handling difficulties, whether through practical support (e.g., helping with tasks) or emotional support. Furthermore, a larger household dimension might also provide a broader range of perspectives and experiences, enhancing the family's collective problem-solving capabilities and, thus, their resilience. More prominent families may also have stronger intrafamily networks, which can be drawn on in times of stress or crisis, enhancing resilience. The findings and explanations presented make sense for the sample in the present study and the cultural context.

To our knowledge, there are no previous studies on the instrument's psychometric properties for the Portuguese population. The WFRQ shows good psychometric properties. This research supports the instrument's consistency because it aimed to confirm the original dimensionality of the WFRQ through CFA, unlike other studies that employed EFA, such as the study by Rocchi et al. (2017). The reliability of the scores is very good, with values greater than .70 (except for one first-order dimension). All items apart from item 10 were maintained; future studies should test this reduced version in an independent sample from the same population (Marôco, 2021).

Future research should further examine the validity evidence based on relations to other variables, broadening the scope of associations to include more variables that are anticipated to be correlated with WFRQ scores. Future research should also consider investigating additional sources of validity, such as validity evidence based on response processes and testing consequences. Examining response processes can help ensure that respondents interpret and respond to the questionnaire items as intended, thereby improving the accuracy and reliability of the measure. Furthermore, analyzing testing consequences can provide insights into the practical implications and potential impact of using the WFRQ in various contexts, contributing to a more comprehensive understanding of the instrument's overall validity evidence. By exploring these additional sources of validity, future studies can strengthen the psychometric properties and applicability of the WFRQ in diverse settings.

The WFRQ represents an instrument that has been constructed based on a family functioning model (Walsh, 2016a) and can be seen as a good measure as indicated by several studies (Al-Sheri, 2023; Haji et al., 2018; Li & Li, 2021; Nadrowska et al., 2022; Rocchi et al., 2017; Sabah et al., 2021) and in this study's promising validity evidence.

Limitations

The present findings should be considered in light of the study's limitations. A convenience sample was used. It would be beneficial to use a probabilistic sampling technique to form a representative sample of the Portuguese population in future research. Therefore, this study can be considered an initial step but not a definitive one in validating the WFRQ in Portugal. To better understand the impact of sociodemographic variables, such as employment status, on family resilience, further studies should try to specify family income and job area.

One of the limitations of the present study is the inability to conduct a measurement invariance analysis due to our current sample size. Future studies with larger sample sizes should

assess measurement invariance to determine whether the WRFQ scale functions similarly for different respondent groups (e.g., fathers and mothers) and different administration modes (e.g., paper-and-pencil and online surveys). Examining measurement invariance across these groups and modes would provide valuable insights into the potential differences in the way respondents perceive and respond to the WRFQ items and help determine whether there is a need to control for parental status or survey administration mode in subsequent analyses.

It is also pertinent to investigate the association of the WRFQ with a dependent measure (such as family stress) and another measure of family resilience (such as the FSOC and the FACES) to ensure evidence of predictive and concurrent validity. In future studies, it would also be important to administer the instrument to all individuals within a family. Ideally, multiple sources should be available for analysis, as different family members and clinicians may perceive family strengths and functioning differently. Having more than one informant can lead to a more robust understanding of family resilience by allowing for the consideration of perspectives from each individual within a family unit.

Implications

Identifying the risk and protective factors of family functioning fosters family resilience and prepares them to withstand life's adverse situations (Pereira, 2001). Overall, the present study's findings show the suitability of the WFRQ and offer Portuguese practitioners and researchers a holistic measure to gain insight into resilience beyond the individual level. This instrument will have utility in family resilience research and clinical interventions with families. The WFRQ can be used as a pre- and post-assessment tool in research and clinical settings because it can assess the family's changes over time during adversity, considering the adaptation processes they use to cope (Rocchi et al., 2017). The questionnaire is helpful for clinical practice because it can guide therapeutic interventions focused on the family's resources and current situation, indicating, simply and quickly, how to address the family's needs and directing therapy by monitoring family patterns and assessing therapy outcomes (Walsh, 2016a).

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

How to cite this article: Morais, I., Carneiro, F. A., Sinval, J., Costa, P. A., & Leal, I. (2024). The Walsh Family Resilience Questionnaire: Validity evidence from Portugal. *Family Relations*, *73*(5), 3357–3377. https://doi.org/10.1111/fare.13078