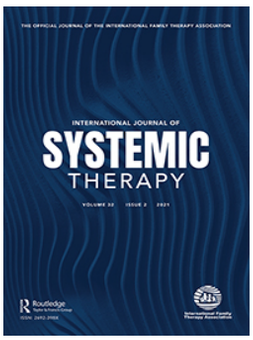

International Journal of Systemic Therapy

ISSN: (Print) (Online) Journal homepage: https://www.tandfonline.com/loi/wjfp21

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To cite this article: Aiche Sabah, Omar Khalaf Rashid Al-Shujairi & Senouci Boumediene (2021): The Arabic Version of the Walsh Family Resilience Questionnaire : confirmatory Factor Analysis of a Family Resilience Assessment Among Algerian and Iraq Families, International Journal of Systemic Therapy, DOI: 10.1080/2692398X.2021.1960117

To link to this article: https://doi.org/10.1080/2692398X.2021.1960117

Published online: 12 Aug 2021.

JOURNAL OF FAMILY PSYCHOTHERAPY
https://doi.org/10.1080/2692398X.2021.1960117

The Arabic Version of the Walsh Family Resilience Questionnaire : confirmatory Factor Analysis of a Family Resilience Assessment Among Algerian and Iraq Families

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ABSTRACT

The Family Resilience Questionnaire was developed to assess Walsh's theoretical model in understanding and fostering resilience in families facing adversity .To provide a useful assessment tool for use in Arab cultures, this study aimed at confirming the validity and factor structure of the Arabic translation of the Walsh Family Resilience Questionnaire through confirmatory factor analysis. The study was conducted on a sample of 380 individuals in families in Iraq and Algeria. According to the results of the analysis, the model has good matching and there were no differences in the dimensions of family resilience. Comparison of subjects in Iraq and Algeria found similar ratings for all sub-dimensions except for higher ratings for Iraqi families on three processes: meaning-making of adversity, clear, consistent messages, and collaborative problem-solving. The results support that the WFRQ is valid for use in Algeria and Iraq, and the results were discussed in the light of social context variables.

KEYWORDS

Family Resilience; WFRQ Arabic Translation; confirmatory factor analysis; Algerian and Iraq families

Introduction

Family resilience refers to a response to highly adverse situations. When families face adverse situations that disturb their balance, these disruptive situations are linked to changes in the routine of family life and adaptation to it (Yang et al., 2020). One of the enduring mysteries of family dynamics is why some families live well together and respond positively to the challenges, while other families in similar circumstances do not cope well. Successful adaptation of families during life transitions, stress, or adversity has been defined as family resilience (Black & Lobo, 2008). First described in early studies to denote the characteristics of a child or adolescent as invulnerable (Anthony, 1974), the concept of resilience was developed by studying the positive adaptation of children under adverse conditions and by discussing

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the mechanisms that protect people from the psychological risks associated with severe adversities (Rutter, 1987). It has been expanded to include the study of family systems (Patterson, 2002; Walsh, 1996, 2003b).

The concept of family resilience allows researchers and practitioners to view the family as a source of strength and to shift attention from individual members to the entire family unit (Yang et al., 2020). In addition to seeing individual family members and effective parenting as resources for individual resilience, the systems perspective focuses on risk and resilience in the family as a functional unit (Walsh, 2016a). Family resilience is defined as the family's ability to withstand the stressful challenges of life and effectively confront the hardships and traumas, and recovery from its negative impacts (Walsh, 2016b).

Henry et al. (2015) believe that family resilience science has progressed through two waves and is ready for the third wave. During the first and second waves, the family resilience perspectives were initially conceptualized and researched. As a strengths-based approach, it focuses on positive family coping in the face of high risk, using the integration of concepts between individual resilience, systems perspectives on family systems, and family stress theory. For the third wave, the authors called for increasing consistency in terminology and the construction of instruments to measure family resilience, which can be adapted for application in research and strengths-based interventions in varied social contexts and situations of adversity. The Walsh Family Resilience Model (Walsh, 2003a, 2003b, 2016a) provides these terms, in addition to a multivariate structure that allows for rigorous measurement.

Walsh's postmodern paradigm shifts away from an emphasis on resilience as only a response to crisis to a transformative, evolving, and iterative processes over time. This concept views family resilience in terms of transactional processes that enable families to 'bounce forward' from crisis, and become more resourceful in facing future adversity. Walsh focuses on key processes that can reduce stress and vulnerability in high-risk situations; promote healing and growth beyond crisis; and enable families to overcome long-term adversities. Walsh asserts that 'there is no single model (of resilience) that fits all families or situations' (Duncan Lane et al., 2017, p. 02), and (Walsh, 2015) argues that while familial norms and interaction patterns tend to be stable and convergent, they must be assessed in the context of family pressures, resources, and challenges over time and in their social environment. Walsh (2016b) developed a framework for family resilience based on three decades of research experience and practice on nine major processes and subcomponents. These beliefs and practices of family interaction were organized as a map to draw attention to the important elements in family functioning and in intervention planning, in three dimensions: communication/problem solving, organizational patterns, and belief systems.

Family belief systems facilitate resilience when they help members form meaning for negative experiences, maintain a hopeful and positive outlook for active initiative and perseverance, and rely on transcendent and spiritual values and practices (Table 6). The family organizational processes support resilience through a flexible and stable structure with strong care, orientation and protection leadership, bonding for mutual support and teamwork, and relatives' resources and the community. Communication processes facilitate flexibility through clear information, emotional sharing of both painful feelings and positive interactions, including appreciation, joy, humor, relief from problems, and collaborative problem solving, with a proactive approach to future challenges (Walsh, 2015).

These key processes in family resilience operate in an interactive and synergistic manner. For example, shared meaning is involved in promoting and facilitating clear communication and both enable problem solving effectively. Spiritual nourishment can be found in a variety of ways: through religious or humane values and practices shared in family life, through engagement in a religious community, by communion with nature, or in social activity to help others or improve adverse circumstances (Walsh, 2015).

Although there is a great deal of study on family resilience, only a few are quantitative studies of this theory (Rocchi et al., 2017), one of the measures built on Welch's theory is the measure of family resilience (FRAS family resilience assessment Scale) (Tucker Sixbey, 2005) who found that building family resilience was a factor of six, this differs with Welch's nine-factor model. Walsh developed the Family Resilience Scale consisting of 32 items to be rated on a 5-point Likert scale. Respondents were also asked to note any other aspects that would help them overcome challenges. It could be used in pre- and post-assessment in practice effectiveness research, to categorize within families that have changed over time, in the context of dealing with a negative situation, such as adaptations after a crisis or transformation when facing emerging challenges or multiple circumstances and chronic stress (Dadashi Haji et al., 2018). With growing international interest in understanding and promoting family resilience, there is a pressing need for measurement tools that can be applied in different cultural contexts. To date, (Table 2) the Walsh Family Resilience Questionnaire has been translated and validated with high reliability, validity and global structure in several diverse cultures, including China (Mu & Zhang, 2009) Italy (Rocchi et al., 2017) and Iran (Dadashi Haji et al., 2018).

Iraqi and Algerian families

In the Arab environment, families are facing rapid social, economic and political change during which they need more flexibility to acquire resources to survive. There is no doubt that the transformations that our world is

witnessing today and the great changes it is going through have seriously impacted all areas of life. Also, the accompanying social, development, and technological changes have generated upheaval in the life of the family and in effects on the processes of social upbringing, and impact on marital harmony and family stability. These changes are especially disruptive in the context of the challenges facing societies of developing countries, especially the Iraqi and Algerian societies. The armed violence that has erupted in Iraq in recent decades has turned the country into a theater of violence, which has become one of the main causes of psychological suffering, especially among vulnerable groups and refugees, which has necessitated the study of family resilience among these groups who have suffered the ravages of wars and displacement, as well as sectarianism. With regard to Algeria, mental health is an aspect of public health that has been neglected in the third world countries due to factors related to mentality and behavior, and thus has not been given priority in psychological training and services.

With the aim to provide a standardized tool for measuring family resilience in Arab societies in the Middle East and North Africa, the current study evaluated the psychometric characteristics of the WFRQ scale based on Walsh's family resilience framework, tapping family members' perceptions of their family resilience. In the Arab environment, no studies have been published using confirmatory factor analysis or psychometric properties of WFRQ on family resilience. This study aimed to translate the WFRQ scale and ensure its global structure on two samples in Algeria and Iraq, as well as comparing the ratings of specific processes for family resilience in the two social contexts. Expanding the sample over two countries, Algeria and Iraq will enable us to assess the validity of the scale on more than one Arab culture, and thus the results will enable us to use it more comfortably in Arab societies, especially the language is not an obstacle to the sample, so extending its use to larger Arab society (Algeria and Iraq) would be beneficial in the study.

Methods

Sample

The sample consisted of 380 participants (240 from Algeria and 140 from Iraq), aged between 18-50 years. The questionnaire was distributed through an electronic questionnaire via social networking sites (Facebook, e-mail). The sampling method was a Convenience Sample (Vogt & Johnson, 2011) of respondents in Algeria (n = 240, 63.2%) and Iraq (n = 140, 36.8%). The percentage of males (n = 163, 42.9%) was less than the percentage of females (n = 216, 56.8%), The study sample was distributed on the age variable, from the largest age groups 31-40 years (n = 135, 35.5%), and 24-30 years (n = 122, 32.1%), to those 41-50 years (n = 81, 21.3%), those 18-23 years (n = 40, 10.5%),

and those under 18 years (n = 2, 21.3%). With regard to marital status, the largest percentage was in the unmarried group (n = 191, 50.3%), followed by the married group (n = 178, 46.8%), and the divorced group had a small percentage (n = 11, 2.9%). The academic level of the research sample, the largest percentage came to a university level (n = 128, 33.7%), followed by a PhD percentage (n = 127, 33.4%), followed by a master's percentage (n = 98, 25.8%), followed by the secondary and intermediate percentage respectively (n = 10, 2.6%) (n = 7, 1.8%) and the percentage of missing data regarding academic level were few and not disposed of (n = 10, 2.6%) and Table 1 represents the socio-demographic characteristics of the sample.

Measure

A family resilience scale used was prepared by Walsh (2003a), consisting of 32 items on a 5-point Likert scale (1 = rare; 5 = usually) followed by an open-ended question. The scale includes three main dimensions, 13 items access the domain named belief systems, 9 items referred to the domain of organizational patterns, and 10 items represented communication/ problem-solving. An overall family resilience score is calculated using the mean from each of the participants' responses to the 32 items. Higher scores indicate greater family resilience.

The scale has been indicated in the study (Duncan et al., 2020) that WFRQ has been used in a small number of studies, and the psychometric properties of the scale were not determined. The psychometric properties of the scale were estimated by (Duncan et al., 2020), and the results supported the confirmatory factor analysis (CFA) the three-factor theoretical structure consisting of belief systems, organization patterns, communication/problem-solving belief

Table 1. Distribution of the study sample according to the study variables (gender, age and country).

Variables		N	Percentage %
country	Iraq	140	36,8
	Algeria	240	63,2
Sex	Male	163	42,9
	Female	216	56,8
Age	Less than 18	2	5
	From 18 to 23	40	10,5
	From 24 to 30	122	32,1
	From 31 to 40	135	35,5
	From 41 to 50	81	21,3
Marital status	Single	191	50,3
	married	178	46,8
	divorced	11	2,9
Academic level	Middle school	7	1,8
	High school	10	2,6
	Bachelor	128	33,7
	Master	98	25,8
	PHD	127	33,4
	Lost data	10	2,6

Table 2. Item and factor Analysis of the Walsh Family Resilience Questionnaire.

Factor		items	skew	kurtosis	mean	SD	α	Omega (ω)
Family Belief System	**1. Meaning-Making of Adversity**	1-Our family faces difficulties together as a team, rather than individually	-0,408	-0,531	3,4947	1,13819	0,786	0,797
		2. We view distress with our challenges as common, understandable in our situation	-1,020	0,621	4,0632	0,99932		
		3. We approach a crisis as a challenge we can manage and master with shared efforts	-0,772	0,303	3,9026	0,98992		
		4. We try to make sense of stressful situations and focus on our options	-0,530	-0,097	3,6184	1,03203		
	2. Positive outlook	**5**. We keep hopeful and confident that we will overcome difficulties	-0,648	0,132	3,8868	0,97479	0,861	0,867
		6. We encourage each other and build on our strengths	-0,670	-0,150	3,7289	1,11014		
		7. We seize opportunities, take action, and persist in our efforts	-0,569	-0,128	3,6921	1,05392		
		8. We focus on doing what is possible and try to accept what we can't control or change	-0,604	0,119	3,6474	0,97020		
	3. Transcendence, Spirituality,	**9**. We share important values and life purpose that help us rise above difficulties	-0,822	0,324	3,9105	0,99994	0,781	0,787
		10. We draw on spiritual resources (religious or not) to help us cope well	-0,933	0,376	4,1026	0,96509		
		11. Our challenges inspire more meaningful life priorities and strengthen our bonds	-1,117	1,372	4,0133	0,95676		
		12. Our hardship has increased our compassion and desire to help others	-0,689	0,295	3,6342	1,20701		
		13. We believe we can learn and become stronger through our challenges	-0,847	0,450	3,8579	1,01223		

(*Continued*)

Table 2. (Continued).

Family Organizational Processes	**4. Flexibility**	14. We are flexible in adapting to new challenges	-0,672	0,331	3,7447	0,97494	0,799	0,802
		15. We provide stability and reliability to buffer stressful times for family members	-0,754	0,495	3,7421	0,99169		
		16. Strong leadership by parents / adults provides warm nurturing, guidance, & security	-1,197	0,853	3,9974	1,11241		
	5. Connectedness	**17**. We can count on family members to help each other in difficulty	-1,264	1,135	4,1500	1,03047	0,819	0,820
		18. Our family respects our individual needs and differences	-0,896	0,403	3,8421	1,06828		
		19. In our immediate and extended family, we have positive role models and mentors	-0,766	-0,125	3,7553	1,15345		
	6. Social & Economic Resources	**20**. We can rely on support of friends, neighbors and our community	0,114	-0,842	2,8711	1,20759	0,649	0,676
		21. We have economic security to be able to get through hard times.	-0,552	-0,214	3,5474	1,09947		
		22. We have access to community resources that help our family through difficult times, e.g., health services, childcare, job flexibility.	-0,443	-0,193	3,5105	1,05390		
Communication and Problem-solving Processes	**7- Clear, consistent messages**	23. We seek clear information about the condition we are dealing with and options ahead.	-0,540	-0,024	3,6474	1,00755	0,806	0,813
		24. In our family, we are clear and consistent in what we say and do.	-0,779	0,340	3,8053	1,02680		
		25. We can express our opinions and be truthful with each other	-0,874	0,479	3,9026	1,00840		
	8- Open Emotional Expression	**26**. We can share many different feelings (e.g. sadness, anger, fear, joy, appreciation)	-0,884	0,384	3,9763	0,99708	0,777	0, 781
		27. We can show understanding, accept differences and avoid negative judgments	-0,511	-0,255	3,6079	1,04588		
		28. We can share humor, fun, and celebration and find relief from burdens and struggles	-0,823	0,272	3,9789	0,98516		
	9- Collaborative Problem-solving	29. We collaborate in discussing and making decisions, and we handle disagreements fairly.	-0,649	0,144	3,6947	1,02036	0,886	0, 887
		30. We focus on our goals and take steps to reach them.	-0,815	0,338	3,7342	1,05290		
		31. We celebrate successes and learn from mistakes.	-0,883	0,271	3,8789	1,07555		
		32. We plan and prepare for the future and try to prevent crises	-,729	,003	3,7816	1,06871		
All items							0,962	,963

systems, it was also found that the value of the alpha coefficient for these three factors, respectively, is 0.88, 0.85, and 0.90, and the scale as a whole is 0.94. The scale has been translated into multiple settings and has been highly reliable in various cultures, confirming the suitability of WFRQ for measuring family resilience.

Study procedures

After communicating with Dr. Froma Walsh and obtaining her consent to use the scale for purposes of standardization and validation, the scale was translated into Arabic by researchers and then presented to a linguist in the Arabic language. The sample was expanded to include Algeria and Iraq Where an Iraqi researcher was invited to participate in the study. Expanding the sample over two countries, Algeria and Iraq will enable us to assess the validity of the scale on more than one Arab culture (The dialects differ from one Arab country to another, but all universities and educational institutions in all Arab countries use a unified Arabic language. There is no difference in classical Arabic in any Arab country. Therefore, the translation is made in classical Arabic and not in dialects. Therefore, it is understandable for both samples and will not cause any difference between the two samples answers), and thus the results will enable us to use it more comfortably in Arab societies. Therefore, because the language is not an obstacle to the sample, the Iraqi researcher was invited to participate in the study in order to obtain a larger sample of Iraqi society.

The online questionnaire was used on the Google website and distributed to the largest possible sample of respondents via social media sites (Facebook and the e-mails of some colleagues and friends) where there was an emphasis on voluntary participation. After a period of time, the responses were stopped on the grounds that a sample of 380 was sufficient to conduct the confirmatory factor analysis of the scale. The data was transferred from the electronic questionnaire to SPSS. The missing data was dealt with by the Expectation-maximization Algorithm (EM) Method, which is a method used to estimate the lost data. The EM method includes iterative processes that cycle between the prediction step and the maximization step, in which an estimate is obtained for the missing data, so that the AMOS program does not accept the missing values. We deemed that this method is the most appropriate for the lost data.

Data analysis

The analyses were performed using the SPSS version 26, in which the metadata was initially examined to determine the characteristics of the sample. As well

Table 3. Pearson Correlation Matrix results for The Walsh Family Resilience Questionnaire sub-dimensions.

	1. Meaning-Making of Adversity	2. Positive outlook	3.Transcendence, Spirituality	4. Flexibility	5. Connectedness	6. Social & Economic Resources	7- Clear, consistent messages	8- Open Emotional Expression	9-Collaborative Problem-solving
1. Meaning-Making of Adversity	1	,705**	,681**	,653**	,602**	,423**	,675**	,622**	,652**
2. Positive outlook	,705**	1	,804**	,755**	,707**	,464**	,743**	,678**	,694**
3.Transcendence, Spirituality	,681**	,804**	1	,724**	,665**	,449**	,702**	,678**	,674**
4. Flexibility	,653**	,755**	,724**	1	,737**	,475**	,724**	,652**	,693**
5. Connectedness	,602**	,707**	,665**	,737**	1	,499**	,729**	,656**	,690**
6. Social & Economic Resources	,423**	,464**	,449**	,475**	,499**	1	,521**	,450**	,476**
7- Clear, consistent messages	,675**	,743**	,702**	,724**	,729**	,521**	1	,697**	,772**
8- Open Emotional Expression	,622**	,678**	,678**	,652**	,656**	,450**	,697**	1	,773**
9- Collaborative Problem-solving	,652**	,694**	,674**	,693**	,690**	,476**	,772**	,773**	1

Table 4. Model Fit Measures.

Measure	Estimate	Threshold	Interpretation
Chi-Square	1095,636	–	–
DF	458	–	–
CMIN/DF	2,392	Between 1 and 3	Excellent
CFI	0,918	>0.95	Acceptable
SRMR	0,058	<0.08	Excellent
RMSEA	0,061	<0.06	Acceptable
PClose	0,000	>0.05	Terrible

as descriptive statistics of the study variables as well as dealing with missing data. AMOS 24 software was used to conduct Confirmatory Factor Analysis.

Results

The items of the questionnaire were analyzed where the skew, kurtosis mean and standard error (SD) were calculated for each item separately, while the stability was calculated by Cronbach's alpha α and Omega (ω) for all sub-dimensions as well as the total as a whole, for all items.

We notice through the table that the values of Skew ranged between 0,114 and −1,264, while the values of Kurtosis ranged between −0,842 and 1,372 – this indicates the normal distribution of the items due to their proximity to their location between −1 and +1, with SMA mean, the average of the items was medium, Except for four items, which are: 'We view distress with our challenges as common, understandable in our situation,' ' We draw on spiritual resources (religious or not),' 'Our challenges inspire more meaningful life priorities and strengthen our bonds' and also 'We can count on family members to help each other in difficulty.' The stability coefficient was also calculated by Cronbach's alpha for the subscales, and it ranged between 0.649 and 0.886, while the values of the weighted Omega ranged between 0.667 and 0.88, which are acceptable values, especially if we take into account the sub-dimensions.

Table 3 Show a Pearson Correlation Matrix results for the Walsh Family Resilience Questionnaire sub-dimensions.

Correlation is significant at the 0.01 level (2-tailed).

It is evident from the previous table that the values of the correlation coefficients are all a function at the level of (0.01), this means that the scale has a high degree of consistency and that all the dimensions of the sub-scale are related to each other, which indicates that there is an internal consistency of the scale as a whole.

Table 5. Loading of the expressions on the Walsh Family Resilience Questionnaire (WFRQ) after computing the confirmatory factor analysis.

Factor		Items	Loading		R2	
Family Belief System	1. Meaning-Making of Adversity	1-Our family faces difficulties together as a team, rather than individually	,607	,900	0,368,449	0,81
		2. We view distress with our challenges as common, understandable in our situation	,782		0,611,524	
		3. We approach a crisis as a challenge we can manage and master with shared efforts	,859		0,737,881	
		4. We try to make sense of stressful situations and focus on our options	,795		0,632,025	
	2. Positive outlook	5. We keep hopeful and confident that we will overcome difficulties	,766	,972	0,586,756	0,944,784
		6. We encourage each other and build on our strengths	,843		0,710,649	
		7. We seize opportunities, take action, and persist in our efforts	,829		0,687,241	
		8. We focus on doing what is possible and try to accept what we can't control or change	,694		0,481,636	
	3. Transcendence, Spirituality,	9. We share important values and life purpose that help us rise above difficulties	,785	,994	0,616,225	0,988,036
		10. We draw on spiritual resources (religious or not) to help us cope well	,592		0,350,464	
		11. Our challenges inspire more meaningful life priorities and strengthen our bonds	,737		0,543,169	
		12. Our hardship has increased our compassion and desire to help others	,351		0,123,201	
		13. We believe we can learn and become stronger through our challenges	,777		0,603,729	
Family Organizational Processes	4. Flexibility	14. We are flexible in adapting to new challenges	,705	,964	0,497,025	0,929,296
		15. We provide stability and reliability to buffer stressful times for family members	,796		0,633,616	
		16. Strong leadership by parents/adults provides warm nurturing, guidance, & security	,777		0,603,729	
	5. Connectedness	17. We can count on family members to help each other in difficulty	,774	,908	0,599,076	0,824,464
		18. Our family respects our individual needs and differences	,825		0,680,625	
		19. In our immediate and extended family, we have positive role models and mentors	,684		0,467,856	
	6. Social & Economic Resources	20. We can rely on support of friends, neighbors and our community	,642	0.745	0,412,164	0,555,025
		21. We have economic security to be able to get through hard times.	,726		0,527,076	
		22. We have access to community resources that help our family through difficult times, e.g., health services, childcare, job flexibility.	,774		0,599,076	

(*Continued*)

Table 5. (Continued).

Factor		Items	Loading		R2	
Communication and Problem-solving Processes	7- Clear, consistent messages	23. We seek clear information about the condition we are dealing with and options ahead.	,708	,976	0,501,264	0,952,576
		24. In our family, we are clear and consistent in what we say and do.	,793		0,628,849	
		25. We can express our opinions and be truthful with each other	,828		0,685,584	
	8- Open Emotional Expression	26. We can share many different feelings (e.g. sadness, anger, fear, joy, appreciation)	,746	,954	0,556,516	0,910,116
		27. We can show understanding, accept differences and avoid negative judgments	,814		0,662,596	
		28. We can share humor, fun, and celebration and find relief from burdens and struggles	,639		0,408,321	
	9- Collaborative Problem-solving	29. We collaborate in discussing and making decisions, and we handle disagreements fairly.	,793	,920	0,628,849	0,8464
		30. We focus on our goals and take steps to reach them.	,858		0,736,164	
		31. We celebrate successes and learn from mistakes.	,811		0,657,721	
		32. We plan and prepare for the future and try to prevent crises	,767		0,588,289	

Table 6. Model Validity Measures.

	CR	AVE	MSV	MaxR(H)	F10	F11	F12
Family Belief System	0,970	0,914	0,870	0,991	0,956		
Family Organizatial Processes	0,908	0,769	0,883	0,950	0,933***	0,877	
Communication and Problem-solving Processes	0,965	0,903	0,883	0,973	0,910***	0,940***	0,950

Table 7. Differences in the level of family resilience between the respondents depending on the country variable (Algeria 240, Iraq 140).

Domain/Scale		Mean	T test	Sig
Meaning-Making of Adversity	Iraq	15,5714	2,267	,024
	Algeria	14,7917		
Positive outlook	Iraq	15,1143	,685	,494
	Algeria	14,8625		
Transcendence, Spirituality	Iraq	19,8929	1,482	,139
	Algeria	19,3002		
Flexibility	Iraq	11,8071	1,852	,065
	Algeria	11,2958		
Connectedness	Iraq	11,9643	1,158	,248
	Algeria	11,6208		
Social & Economic Resources	Iraq	10,2071	1,608	,109
	Algeria	9,7667		
Clear, consistent messages	Iraq	11,7143	2,079	,038
	Algeria	11,1458		
Open Emotional Expression	Iraq	11,8000	1,402	,162
	Algeria	11,4250		
Collaborative Problem-solving	Iraq	15,5714	1,978	,049
	Algeria	14,8083		

Confirmatory factor analysis

The present study examined the Walsh Family Resilience Questionnaire (WFRQ) using the Confirmatory Factor Analysis method using the AMOS 24 program.

Estimation of the model parameters

The Maximum Likelihood method was used and the following table shows the indicators extracted from the Walsh Family Resilience Questionnaire (WFRQ) factor analysis, which was applied to a sample of both sexes (n = 380).

The results of the match quality indicators generally indicate that they are all good, (Table 4) as the Chi-Square value reached 1095,636 at a significance level of 0.00, which is a non-significant value for the model, and the latter is a basic test of goodness of conformity as it assumes that there are no significant differences between the expected model and the actual model. The value of the chi-square that is not statistically significant (as in the current model) expresses that there are no fundamental differences between the variance matrix of the assumed model and the variance matrix of the sample, and this parameter is affected by its influence in the significance of its value with

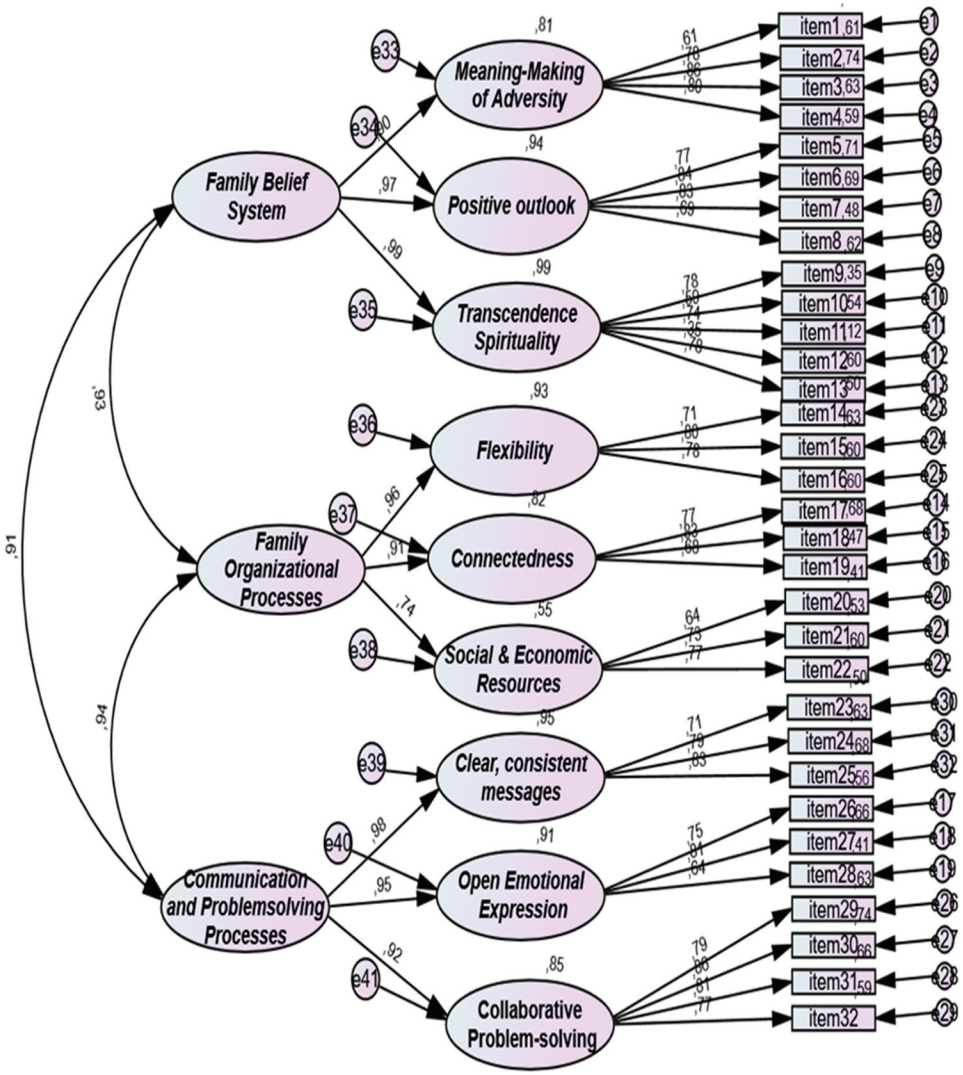

Figure1. Second-order Confirmatory Factor Analysis of Walsh Family Resilience Questionnaire (WFRQ).

the size of the sample and its sensitivity to the size of the correlation coefficients. Due to an increase in the chi-square value, it must be followed by other evidence of goodness of fit, while the results of the Goodness of Fit indicators generally indicate that both the CFI and the GFI are the Root Mean Square Error of Approximation, RMSEA. It was very good, indicating that the model is consistent with the data collected on the two samples in Iraq and Algeria. Figure 1 shows the loading of the Walsh Family Resilience Questionnaire (WFRQ) scale.

Model validation

The loading of the items

the high loading values of the indicators that measure a factor are considered evidence of the convergent truth, and the following table 5 shows the loading of the expressions after calculating the confirmatory factor analysis:

It is noticed through the table that the approximate truthfulness is achieved, which assumes that a group of expressions represent the same factor if the correlation ratio is high, and the loading value ranged between 0.351 to 0.859 for the scale items, while the loading value for the sub-dimensions ranged between 0.745 and 0.994, while the R squared coefficient of determination R^2, its value for the items ranged between 0,123,201 and 0.737881, while the value of R squared for sub-dimensions ranged between 0.555025 and 0.988036, which are acceptable values and loading.

Through the table, we find that the confirmatory factor analyses throught structural equation modeling showed that a second-order model is a good fit for experimental data, and the results demonstrated that CFA is appropriate for validity and reliability structural model to measure Walsh Family Resilience Questionnaire (WFRQ).

Differences in the level of family resilience between the respondents depending on the country variable (Algeria 240, Iraq 140). (Table 7)

To verify the validity of this hypothesis, a (T) test was used for the difference between the mean of two independent samples, and the following table shows the results of this procedure.

We note through the table that there are no significant differences between the respondents in the countries of Iraq and Algeria on the dimensions and key processes of family resilience, except that the Iraqi sample scored higher on three processes: Meaning-Making of Adversity, Clear, consistent messages, Collaborative Problem-solving.

Discussion

General summary

Resilience is a normative concept of moral values and social aspirations, not just a functional concept of doing 'better-than expected' in the face of adversity. Consequently, resilience has important moral, social and political dimensions (Panter-Brick, 2015). Thus, family resilience is a construct based on a cultural basis and it is necessary to consider contextual factors when studying it. The Walsh scale, translated into Arabic and applied to two samples from Iraq and Algeria, is the first measure of family resilience whose global structure is investigated in two environments, Iraq and Algeria. The confirmatory factor analysis of the scale's structure after its application to the study sample

supported the original global structure of the scale in an identical manner without any modification of it.

The loading of all the items were acceptable, and the loading ranges between 0.59 to 0.99 except for one paragraph, which is Transcendence 4, whose loading was equal to 0.35, but it is acceptable as long as it is above 0.30 and as long as it is statistically significant.

Differences between Iraq and Algeria samples

Differences between iraq and Algeria samples: The results also showed that there were no differences between the Algerian and Iraqi samples in the dimensions of family resilience, while there were differences on three processes: Meaning-Making of Adversity, Clear, consistent messages Collaborative Problem-solving. The higher ratings were in the Iraq sample.

Clinical implications

The CFA asserts that the Walsh Scale of Family Resilience is a valid measure of various cultural settings and contexts. Especially since Algerian and Iraqi families live an increasingly stressful life beside economic and political problems and development, these families live in the burden of the remnants of the COVID-19 pandemic, which increases the importance of studying the resilience of these families. A measure of Walsh's family resilience, which has broad application, especially important for families themselves, and for helping professionals and policymakers to use the information to direct resources and strengths-building efforts.

Although the Algerian and Iraqi societies are characterized by social and cultural contexts that differ from the environment in which the scale was constructed, the results showed a match between the global structure of the scale and the original structure, and this gives the Walsh Scale of Family Resilience an additional value as it is valid for other cultures.

Meaning-Making of Adversity: Walsh believes that the meaning of adversity is filtered through family transactions. How families understand a crisis situation and give it a meaning is crucial to flexibility. The ability to clarify and give a meaning to an unstable situation makes it easy to bear (Walsh, 2015). Iraqi families have lived through more than a decade of war, conflicts and instability, which led to immense suffering. Their higher ratings on meaning-making of challenges may be vital to their perseverance throughout this turbulent period, compared to the Algerian families' experience of greater stability and security during the last two decades.

As for the meaning making of the Iraqi sample, it included changes in how they assessed life's events, and they came to view them as less harmful than they initially thought, and thus this affected in positive ways as a result of the

stressful experience they went through during decades of war and asylum. In contrast to the Algerian sample, which has passed a long time since they went through security and economic problems, and they are now living in calm and stability.

Clear, consistent and messages and Collaborative Problem-solving: The higher ratings of these communication processes in the Iraq sample may reflect their cultural value that resilient families 'say what they mean and mean what they say.' Direct, clear, specific, consistent and honest communication helps all family members to understand the crisis facing the family and encourages them to share their feelings and opinions with each other. Further, because of the crises and challenges that Iraqi families face as a result of the war and its remnants, they become aware of the crisis and focus on communication to face the challenges compared to Algerian families who live in safety, as two decades have passed since the last crisis the country was exposed to. The level of Collaborative Problem-solving is also higher in the Iraq sample. This suggests that Iraqi families may have learned skills that can help them become proactive in preparing for future challenges.

Limitations of the study

The study found that the Arabic-translated WFRQ is a valid instrument to measure family resilience across cultures in two Arab societies in the Middle East and North Africa. Study limitations should be noted. Given the online format of the questionnaire and the reliance on a convenience sample through social media and colleagues, the respondents tended to be more highly educated and likely of higher socio-economic status. Future studies should be directed to resilience in middle and lower-income families, including families facing severe economic hardship. Future studies utilizing the Arab-translation of the WFRQ can be directed to assess and strengthen family resilience in dealing with specific adverse challenges, such as chronic diseases, disabilities, or death of a parent or child.

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