





## INTEGRATIVE LITERATURE REVIEW ARTICLE

### USE OF THE FRAMEWORK OF SYSTEMIC ORGANIZATION IN FAMILY ASSESSMENT\*

#### USO DO MODELO TEÓRICO DA ORGANIZAÇÃO SISTÊMICA NA AVALIAÇÃO FAMILIAR

#### USO DEL MODELO TEÓRICO DE LA ORGANIZACIÓN SISTÉMICA EN LA EVALUACIÓN FAMILIAR

Fernanda Lise<sup>1</sup>, Eda Schwartz<sup>2</sup>, Kathryn Hoehn Anderson<sup>3</sup>, Marie-Luise Friedemann<sup>4</sup>

#### ABSTRACT

**Objective:** to produce a survey of studies on the application of the Framework of Systemic Organization to evaluate the effectiveness of family functioning and build the state of the art. **Method:** this is a descriptive bibliographic study, integrative review, from 2001 to 2017, in the databases MEDLINE, LILACS, Google Scholar and the Virtual Library SciELO, with consultation with experts via ResearchGate. **Results:** 21 studies developed by nurses in six countries were presented, showing the validity and reliability of the ASF-E instrument, assessing the effectiveness of family functioning, especially in chronic or vulnerable conditions. Appropriate methodology and level of evidence IV were used. **Conclusion:** it is concluded that the Framework of Systemic Organization has been used as it is considered a valid tool to evaluate family health in different contexts of family nursing. **Descriptors:** Family Nursing; Family; Nursing; Self-Efficacy; Nursing Theory; Review.



#### RESUMO

**Objetivo:** produzir um levantamento de estudos sobre a aplicação do modelo teórico da organização sistêmica na avaliação da eficácia do funcionamento familiar e construir o estado da arte. **Método:** trata-se de estudo bibliográfico, descritivo, do tipo revisão integrativa, entre 2001 a 2017, nas bases de dados MEDLINE, LILACS, Google Scholar e na Biblioteca Virtuais SciELO, com consulta a especialistas via ResearchGate. **Resultados:** apresentaram-se 21 estudos desenvolvidos por enfermeiros em seis países, nos quais se evidenciaram a validade e a confiabilidade do instrumento ASF-E, avaliando a eficácia do funcionamento familiar, principalmente, em condições crônicas ou de vulnerabilidade. Utilizaram-se metodologia adequada e nível de evidência IV. **Conclusão:** conclui-se que o modelo teórico da organização sistêmica tem sido utilizado por ser considerado uma ferramenta válida para avaliar a saúde da família na em diferentes contextos de atuação da Enfermagem de famílias. **Descritores:** Enfermagem Familiar; Família; Enfermagem; Autoeficácia; Teoria de Enfermagem; Revisão.

#### RESUMEN

**Objetivo:** producir una encuesta de estudios sobre la aplicación del modelo teórico de la organización sistémica para evaluar la efectividad del funcionamiento familiar y construir el estado del arte. **Método:** este es un estudio bibliográfico descriptivo, tipo revisión integradora, de 2001 a 2017, en las bases de datos MEDLINE, LILACS, Google Scholar y SciELO Virtual Library, con consulta con expertos a través de ResearchGate. **Resultados:** se presentaron 21 estudios desarrollados por enfermeros en seis países, que muestran la validez y confiabilidad del instrumento ASF-E, evaluando la efectividad del funcionamiento familiar, especialmente en condiciones crónicas o vulnerables. Se utilizó la metodología apropiada y el nivel de evidencia IV. **Conclusión:** se concluye que el modelo teórico de la organización sistémica se ha utilizado porque se considera una herramienta válida para evaluar la salud familiar en diferentes contextos de Enfermería familiar. **Descriptores:** Enfermería de Familia; Enfermería; Familia; Autoeficacia; Teoría de Enfermería; Revisión.

<sup>1,2</sup>Federal University of Pelotas/UFPEL. Pelotas (RS), Brazil. <sup>1</sup> <https://orcid.org/0000-0002-1677-6140> <sup>2</sup> <https://orcid.org/0000-0002-5823-7858>

<sup>3</sup>Georgia Southern University/GSU. Statesboro (GA), United States of America. <sup>3</sup> <https://orcid.org/0000-0002-0081-1247> <sup>4</sup>Florida International University/FIU. Miami (FL), United States of America/USA. <sup>4</sup> <https://orcid.org/0000-0003-3518-9192>

\*Article extracted from the thesis << Cross-cultural Adaptation and Validity of The Assessment of Strategies in Family-Effectiveness (ASF-E) instrument for use in Brazil: Nursing Strategies for Family Care >>. Federal University of Pelotas, 2019.

#### How to cite this article

Lise F, Schwartz E, Anderson KH, Friedemann ML Use of the Framework of Systemic Organization in family assessment. J Nurs UFPE on line. 2019;13:e 242282 DOI: <https://doi.org/10.5205/1981-8963.2019.242282>

## INTRODUCTION

From a systemic perspective, it is known that family health is seen as a dynamic process whose effectiveness can be assessed using instruments based on theoretical models. Through this approach, nurses are allowed to know the organizational structure of families, their operating systems, helping to choose intervention proposals in the family unit.<sup>1</sup>

Evidence from the literature points to the lack of family assessment instruments based on theoretical models.<sup>2</sup> It is considered that such fragility may have negative implications for the practice of family nurses, therefore, the only worldwide association of family nurses, the International Family Nursing Association,<sup>3</sup> recommends the use of theoretical models for family assessment and intervention<sup>4-18</sup> for considering them effective.<sup>3</sup> It is revealed that, among them, are the Framework of Systemic Organization, developed by nurse Profa. Dr. Marie-Luise Friedemann, and The Assessment of Strategies in Family-Effectiveness (ASF-E), used to assess the health or functionality of families in different contexts.<sup>4,20</sup> The Framework of Systemic Organization aims to achieve four universal targets called stability, growth, control and spirituality, which are maintained by values and beliefs developed in family processes, such as coherence, system maintenance, individuation and system change aimed at maintaining family health.<sup>19</sup>

It is proposed, by this model, to evaluate family efficacy through family processes measured with the instrument (ASF-E), a nominal scale, composed of 20 items, each item has three alternatives worth one, two or three points. Alternative three with high family efficacy is considered; two, average family effectiveness and alternative one, low family effectiveness. The 20 items that measure the effectiveness of family functioning or family health; the minimum value is 20 points and the total maximum value of the instrument is 60 points. Please note that the general classification is as follows: high level of family effectiveness, with scores between 48 and 60; intermediate level of family effectiveness, with scores between 34 and 47, and low efficiency of family functioning, with scores between 20 and 33 points.<sup>4,19</sup>

This study is justified since the ASF-E instrument, based on Framework of Systemic Organization, has been widely used globally and tested in families in the United States,<sup>4</sup> Mexico,<sup>20</sup> Finland,<sup>21</sup> Germany and Switzerland,<sup>22</sup> Colombia,<sup>23</sup> Chile.<sup>24</sup> In Brazil, the ASF-E instrument version is in the process of cross-cultural adaptation and validation.<sup>25</sup> The objective of this integrative literature review was to produce a survey on the application of Framework of Systemic Organization

and build the state of the art on the use of the instrument (ASF-E) in the evaluation of family functionality or health.

## OBJECTIVE

- To produce a survey on the application of the Framework of Systemic Organization in the evaluation of the effectiveness of family functioning and build the state of the art.

## METHOD

This is a descriptive bibliographic study, integrative literature review, to present the state of the art of using the Framework of Systemic Organization and the instrument (ASF-E) to evaluate the effectiveness of family functioning or health. This review comprises the PhD thesis project entitled “Cross-cultural Adaptation and Validity of The Assessment of Strategies in Family-Effectiveness (ASF-E) instrument for use in Brazil: Nursing Strategies for Family Care”. The thesis project was approved by the Research Ethics Committee number 2.088.36 / 2017 and CAAE 68095317.3.0000.5316.

This study was developed following the following steps: 1st) Identification of the theme and selection of the review question; 2nd) Establishment of inclusion and exclusion criteria; 3rd) Identification of pre-selected and selected studies; 4th) Categorization of the selected studies; 5th) Analysis and interpretation of the results; and 6) Presentation of Results.<sup>26</sup>

For data collection, a protocol developed by the authors including information about the publications and their authors, year of publication, purpose, design, population and main results was used, according to the guidelines of the Preferred Items of Systematic Reviews and Meta-Analyses (PRISMA).<sup>27-8</sup>

The research question that guided the study was motivated by the need to know the contributions of the theoretical model of the systemic organization in the evaluation of the family and the absence of records of its use by Nursing in Brazil. Therefore, the following question was formulated: “What is the state of the art of the use of the theoretical model of systemic organization in the evaluation of the effectiveness of family functioning and its contributions in the practice of nurses with families?”. For the analysis, the Pico method was used (Patient, Intervention, Comparison and Outcomes),<sup>29-30</sup> in order to ensure the quality of the data collection stage and to avoid selection biases, the evaluation of all studies by two reviewers independently in February 2018 was performed using the instrument described above in the first step of the methodology.

For the selection of studies, the search limits were defined as the inclusion of primary studies that answered the research question, published in the format of scientific articles, between 2001 and 2017, with quantitative methodologies, available in full, in English, Spanish and Portuguese. The search strategies used the MeSH terms Family AND Nursing AND Self Efficacy in the electronic databases Medical Literature Analysis and Retrieval System Online (MEDLINE), via PubMed. The controlled descriptors Nursing and Family and Self Efficacy were elected in the electronic database Latin American and Caribbean Health Sciences Literature (LILACS). In addition to the above terms, the uncontrolled descriptor Functionality was used in the Scientific Electronic Library Online (SciELO) electronic library. The gray literature from Google Scholar was consulted and also used the snowball technique, with the publications in the profiles of family health specialists registered in ResearchGate using the above terms. Due to the temporal limitation to the date of publication of the theoretical model.<sup>4</sup>

Literature review articles, conference abstracts, news, letters to the editor, theses, dissertations, course completion papers, duplicate studies and those that did not address the proposed theme were excluded. Articles with duplicates were added to the database containing the largest number of studies. This organization

enabled the detailed visualization of the information for further analysis.

A careful evaluation of the studies was performed based on the reading of the titles and abstracts, as well as the full reading of the selected articles. In the data collection, the described instrument was used and, for the bibliographic data treatment, there was justice, integrity, impartiality and respect to the original authors of the publications that composed this study. For the synthesis of the data, the results found in the articles on the use of the theoretical model of systemic organization in family assessment were described.

Evidence levels were evaluated according to the literature recommendation.<sup>31</sup> Through the search strategies used, 682 articles were identified, 295 in MEDLINE via PubMed, 223 in LILACS, 44 in SciELO Virtual Library, 118 in Google Scholar and two at ResearchGate. After reading the titles and abstracts, 651 studies were excluded because they did not meet the criteria and did not answer the question. Twenty-five studies were selected for full reading; of these, four were excluded for not answering the question. The study sample consisted of 21 articles represented in Figure 1.

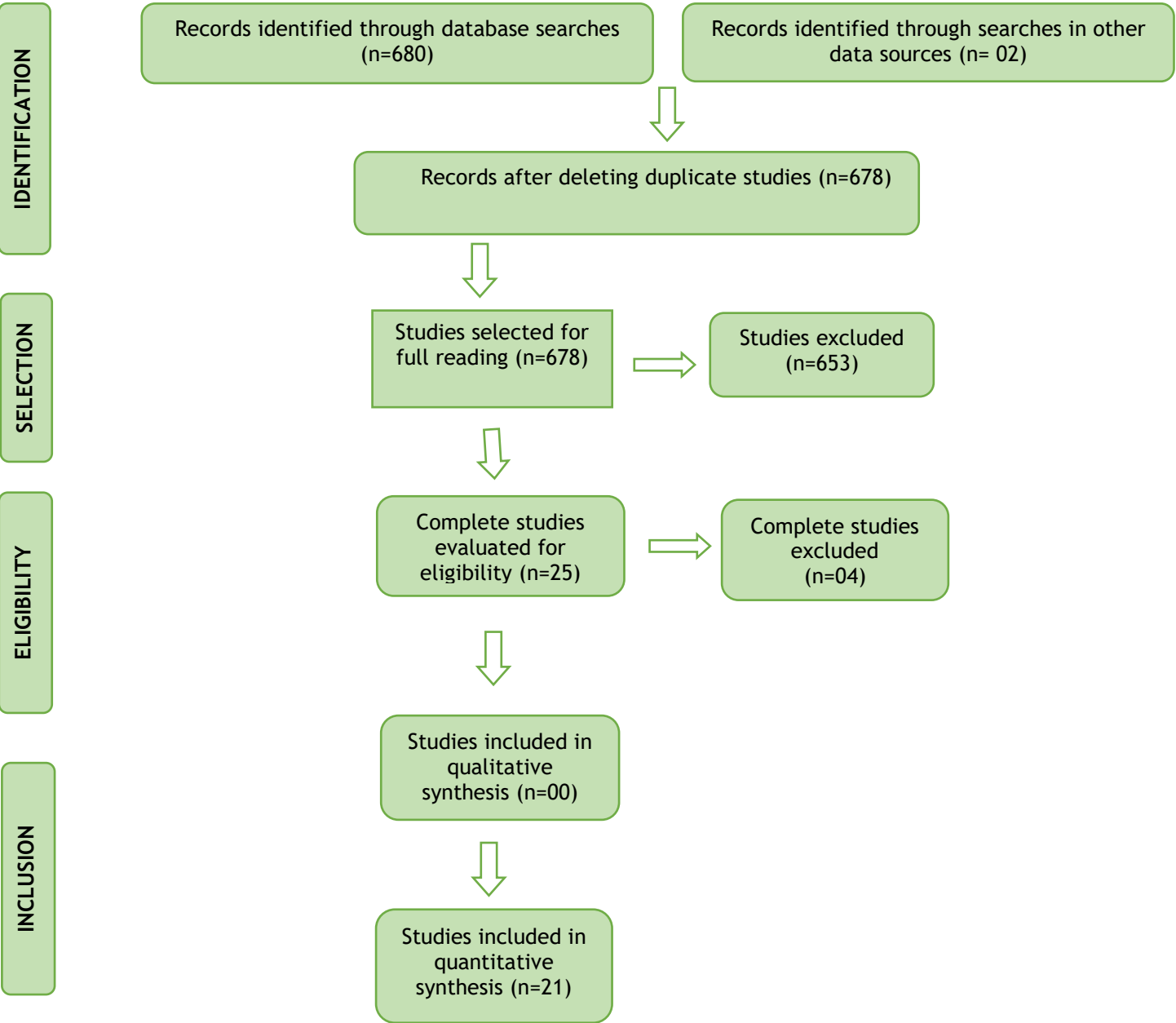


Figure 2. Flowchart of study selection adapted from Preferred Reporting Items for Systematic Reviews and Meta-Analyzes (PRISMA 2009). Pelotas (RS), Brazil, 2018.

RESULTS

It was built, through the survey of the studies developed with the application of the Framework of Systemic Organization, to build the state of the art on the use of the instrument (ASF-E) in the evaluation of the effectiveness of the family functioning. The 21 studies analyzed by nurses from six countries were developed.<sup>22-3,33,34-49</sup> It was

found that, in addition to the original language, English, the instrument (ASF-E)<sup>4</sup> has been translated into three languages: spanish,<sup>21</sup>finnish<sup>22</sup> and german.<sup>23</sup> Regarding the methodology adopted by the studies, different approaches were evidenced, mainly related to the statistical tests used. Studies were categorized with the assessment of the level of evidence as level IV (Figure 2).

Country/ year/ Author	P Sample and context	(N)	I Approach/ Outline	C	O Results using ASF-E	of LE
Finland 2001. <sup>22</sup>	196 individuals adults from inpatient clinical units.		Quantitative and cross- sectional Analysis of validity and internal consistency.	-	It presented acceptable reliability level and construct validity.	IV
Finland 2003 <sup>33</sup>	196 individuals adults from inpatient clinical units.		Quantitative and cross- sectional.	-	It presented acceptable reliability level and construct validity.	IV
Switzerland and Germany	209 Swedish individuals and 343 German		Quantitative and cross- sectional	-	The factor analysis was presented with	IV

2006 <sup>23</sup>	individuals.	Analysis of validity and internal consistency.		18 items and acceptable reliability level.	
Mexico 2007 <sup>34</sup>	100 elderly families.	Quantitative, cross-sectional and correlational.	Physical capacity	Identified positive correlation between the physical capacity of the elderly and the family functionality level.	IV
Colombia 2009 <sup>35</sup>	171 teenage parents.	Quantitative and cross-sectional.	-	Identified low level of family functionality among families composed of adolescent parents.	IV
Mexico 2009 <sup>36</sup>	97 families from elderly in chronic conditions.	Quantitative, cross-sectional and correlational.	Anxiety level.	Identified high level of familial functionality. There was no correlation between functionality and anxiety level.	IV
Chile 2009 <sup>37</sup>	88 parents of children with motor disabilities.	Quantitative, cross-sectional and correlational.	Caregiver Overload.	Identified intermediate level of family functionality and positive correlation between informal caregiver burden of the child with motor disability and family functionality.	IV
Colombia 2010 <sup>38</sup>	102 families with teenagers.	Quantitative and cross-sectional.	-	Identified low level of familiar functionality.	IV
Colombia 2011 <sup>39</sup>	883 families.	Quantitative and cross-sectional. Analysis of validity and internal consistency.	-	Identified low level of familiar functionality. Presented acceptable reliability and face validity.	IV
Colombia 2011 <sup>40</sup>	90 college teens.	Quantitative and cross-sectional.	-	Identified low level of family functionality among college adolescents.	IV
Colombia 2011 <sup>41</sup>	23 families in which a person has suicidal intent.	Quantitative and cross-sectional.	-	Identified low level of familiar functionality.	IV
Colombia 2011 <sup>42</sup>	77 families of pregnant adolescents and 104 families with non-pregnant adolescents.	Quantitative, cross-sectional and correlational.	Families of pregnant and non-pregnant adolescents.	Identified a high level of family functionality in families of pregnant adolescents and intermediate level in families of non-pregnant adolescents.	IV
Colombia	157 families of	Quantitative	-	Identified high	IV



2011 <sup>43</sup>	school children.	and cross-sectional.		level of familiar functionality.	
Colombia 2013 <sup>44</sup>	22 parents of school children.	Quantitative and cross-sectional.	-	Identified low level of familiar functionality.	IV
Colombia 2013 <sup>24</sup>	276 families of school children.	Quantitative, cross-sectional and reliability.	-	It presented low level of internal consistency for the subscales; system consistency and maintenance.	IV
Colombia 2014 <sup>45</sup>	158 mothers of children.	Quantitative and cross-sectional.	-	Identified intermediate level of familiar functionality.	IV
Colombia 2015 <sup>46</sup>	120 families of children aged three to six.	Quantitative and cross-sectional.	-	Identified high level of familiar functionality.	IV
Colombia 2015 <sup>47</sup>	220 families with teenage children aged 13 to 18 years.	Quantitative and cross-sectional.	-	Identified low level of family functionality and no statistically significant result between parents and teenage children.	IV
Chile 2015 <sup>25</sup>	170 adults and the elderly with type 2 diabetes.	Quantitative and cross-sectional.	-	There was no statistically significant difference between family functionality level and adherence to glycemic control treatment.	IV
Colombia 2016 <sup>48</sup>	50 families (233 people) Afrocolombianas.	Quantitative and cross-sectional.	-	Identified low level of familiar functionality.	IV
Colombia 2017 <sup>49</sup>	548 high school students.	Quantitative, cross-sectional and correlational-causal.	-	Identified low level of familiar functionality.	IV

PICO - Patient, Intervention, Comparison and Outcomes; LE - Level of Evidence.  
Figure 2. Description of the PICO strategy and characterization of studies using ASF-E to assess the effectiveness of family functioning, 2019.

The results of the classification of the effectiveness level of family functioning with the

instrument (ASF-E) are presented by 11 studies in table 1.

Table 1. Presentation of the general level of effectiveness of family functioning obtained with ASF-E in studies.

Country/(n)	High (%)	Intermediate (%)	Low (%)
Mexico (88) <sup>1</sup>	11	58	31
Colombia (97) <sup>2</sup>	7	91	1
Colombia (102) <sup>3</sup>	4.9	32.4	62.7
Colombia (883) <sup>4</sup>	59	29	12
Colombia (23) <sup>5</sup>	-	-	60
Colombia (181) <sup>6</sup>	35	57	6.7
	39	57	2.9
Colombia (162) <sup>7</sup>	32	60	18
Colombia (86) <sup>8</sup>	0	18	81
Colombia (75) <sup>9</sup>	65	34	1
Colombia (440) <sup>10</sup>	1.8	29.3	68.1
Chile (170) <sup>11</sup>	81	-	-

Studies were developed that obtained low classificatory score for the effectiveness of family functioning in different contexts, which can be considered of vulnerability, as in populations with some chronic health condition. It is noted that the main populations studied were families of children with learning disabilities,<sup>44</sup> teenage families,<sup>35</sup> families of teenage parents,<sup>40,47</sup> families with grandchildren and grandparents,<sup>48</sup> families who experienced suicide attempt by one of its members,<sup>41</sup> families in situations of violence<sup>49</sup> and in populations composed of women.<sup>24</sup>

In the same way, studies that obtained an intermediate level of effectiveness of family functioning were developed in populations composed of families of children with some chronic health condition. Similarly, studies that obtained an intermediate level of effectiveness of

family functioning were developed in populations composed of families of children with some chronic health condition,<sup>37</sup> mothers of children,<sup>45</sup> families of non-pregnant adolescents<sup>42</sup> and adult families with type II diabetes.<sup>25</sup>

In addition, studies that showed a high level of effectiveness of family functioning were developed in populations with hospitalized individuals,<sup>22</sup> in families of pregnant teenagers,<sup>42</sup> families with school children,<sup>43,46</sup> adult families in chronic conditions<sup>36</sup> and families with elderly.<sup>34</sup>

In the factorial analysis of the study carried out in Switzerland and Germany, the final instrument corresponded to 18 items with acceptable reliability.<sup>23</sup> The results of the internal consistency analysis obtained in seven studies that evaluated the instrument reliability test (ASF-E) are presented in table 2.

Table 2. Presentation of Internal Consistency Analysis Results.

Evaluation of total instrument reliability (ASF-E)					
Cronbach	0.85 <sup>22</sup>	0.82 <sup>23</sup>	0.80 <sup>23</sup>	0.67 <sup>24</sup>	0.74 <sup>39</sup>

## DISCUSSION

It was evidenced by the studies, the use of the Framework of Systemic Organization and the instrument (ASF-E) to evaluate the health level or functionality of the families, in different countries, languages and scenarios of the practice of nurses with families. It is believed that this represents an advance in the quality of family health care provided by nurses because it is supported by a theoretical model that allows for safe intervention in the family.<sup>3</sup>

In the results, it was observed that there was a predominance of studies in the Spanish language, developed mainly by Colombian nurses.<sup>36,38-9,41-2,44-47</sup> This is possibly due to their concern with using a reliable instrument and its availability in the Spanish language, as it was adapted and translated almost two decades ago in Mexico,<sup>21</sup> and had its reliability tested in Colombia.<sup>24,39</sup>

Also noteworthy in relation to language, the Portuguese from Portugal translation not presented in the review for not meeting the inclusion criteria (not published in a scientific journal); similarly, two other studies conducted in Spain and Ecuador evaluated the effectiveness of family functioning and appear as gray literature in academic and / or research work. Therefore, in addition to the six study countries that made up the review, ASF-E was used by nurses from ten countries (USA, Mexico, Germany, Finland, Sweden, Colombia, Chile, Ecuador, Spain and Portugal) and in five languages (English, Spanish, German, Finnish and Portuguese).

It is explained that, despite the diversity of methodological approaches, especially in relation

to statistical analyzes, they may be considered adequate for the purposes established by the authors of the evaluated studies. The level of evidence allowed them to be classified as non-experimental design and / or correlative descriptive research,<sup>32</sup> considered adequate to evaluate the effectiveness of family functioning with the use of the instrument (ASF-E).<sup>4</sup> Therefore, they can be reproduced in these countries, following the methodology described.<sup>4,21-23,26</sup>

As for the results of interventions evaluated with the PICO strategy, evidence of construct validity and instrument reliability<sup>22-3,50</sup> for corroborating previous tests.<sup>4,21-3</sup> It is noteworthy that psychometric behavior may present differences between populations and be influenced by economic and cultural factors as occurred with the Finnish instrument.<sup>22</sup> In the assessment of reliability, the studies also presented the acceptable internal consistency, which is considered a quality seal measured by its reliability.<sup>51</sup> The internal consistency analysis obtained in seven studies evaluating the instrument reliability test (ASF-E), demonstrating acceptable reliability.<sup>22-4,39</sup>

As strategies to compare the results obtained by (ASF-E), it is reported that some studies have applied other assessment tools, which may contribute to the complementarity of information on family health level and support the decision making of the nurse when intervening in the health of families; For example, the use of an instrument to assess anxiety level, caregiver burden and physical capacity contributed to the

evaluation of the family organization to function as a system.

It was evidenced, among the outcomes of the correlational studies, that the higher the level of effectiveness of family functioning and the lower the risk of intra-familial violence,<sup>49</sup> better adherence to glycemic control treatment<sup>25</sup> and the physical capacity of the elderly,<sup>34</sup> family congruence (or harmony) being a protective factor for family health.<sup>20,49</sup>

As contributions to nursing practice with families, this study provided evidence of the practical applicability of the Framework of Systemic Organization with the instrument (ASF-E) to evaluate the effectiveness of family functioning. These results are expected to encourage family nurses to use theoretical models that are consistent in their practices to understand how the family is organized to function and effectively respond as a system to the demands.<sup>20</sup>

CONCLUSION

It is believed that the results of this study allowed us to produce a survey of studies on the application of the Framework of Systemic Organization in the evaluation of the effectiveness of family functioning and build the state of the art. From this, it can be affirmed that instruments developed by Nursing for nursing practice with families favor the evaluation and development of intervention strategies, as it is supported by a consistent theoretical model.

It is concluded that the contribution of this study to the practice with families lies in the presentation of evidence of the use of a consistent theoretical model and, especially, the Brazilian nurses, who are developing the process of transcultural adaptation of the family, (ASF-E / Brazil) for Brazilian Portuguese and presentation of validation and reliability test results with Brazilian families. The limitations of this study include the impossibility of accessing Nursing databases from other countries and the lack of meta-analysis as a consequence of the methodological heterogeneity adopted in the studies, not aiming to evaluate interventions, which does not diminish the quality of the results.

FUNDING

CAPES for the research grant granted to the first author and CNPq for the research productivity grant from the second author.

REFERENCES

1. Östlund U, Bäckström B, Saveman BI, Lindh V, Sundin K. A family systems nursing approach for families following a stroke: Family health

conversations. J Fam Nurs. 2016 May; 22(2):148-71. DOI: [10.1177/1074840716642790](https://doi.org/10.1177/1074840716642790)

2. Lise F, Schwartz E, Spagnolo LM, Lange C, Dall Agnol J. Estratégias de avaliação e intervenção a famílias de crianças e adolescentes: revisão integrativa da literatura. J res fundam care on line [Internet]. 2020 Jan [cited 2019 Jan 02];20 (1):(no prelo).

3. International Family Nursing Association. Position Statement on Advanced Practice Competencies for Family Nursing [Internet]. Pittsburg: IFNA; 2017 [cited 2019 Jan 02]. Available from: <https://internationalfamilynursing.org/wordpress/wp-content/uploads/2017/05/APC-Print-friendly-PDF-document-in-color-no-photos-English-language.pdf>

4. Friedemann ML. An instrument to evaluate effectiveness in family functioning. West J Nurs Res [Internet]. 1991 Apr [cited 2019 Jan 02];13(2):220-41. Available from: <https://journals.sagepub.com/doi/abs/10.1177/019394599101300205>

5. Wright LM, Leahey M. Enfermeiras e Famílias: um guia para a avaliação e intervenção com famílias. São Paulo: Roca; 2012.

6. Wright LM, Bell JM. Beliefs and Illness: A model for healing. 4th ed. Canada: Floor Press; 2013.

7. Moeller MP. Early intervention and language development in children who are deaf and hard of hearing. Pediatrics. 2000 Sept;106(3):43. DOI: [10.1542/peds.106.3.e43](https://doi.org/10.1542/peds.106.3.e43)

8. Aarons GA, McDonald EJ, Connelly CD, Newton RR. The Assessment of family functioning in Caucasian and Hispanic Americans: reliability, validity, and factor structure of the Family. Fam Process. 2007 Dec;46(4):557-69. DOI: [10.1111/j.1545-5300.2007.00232.x](https://doi.org/10.1111/j.1545-5300.2007.00232.x)

9. Nojima S. Kazoku Enpawamento wo motarasu kango jissen (Family Empowerment Nursing Model) [Internet]. Pennsylvania: International Family Nursing Association; 2015 [cited 2019 Jan 02]. Available from: <https://internationalfamilynursing.org/2015/01/30/family-empowerment-nursing-model/>

10. Hohashi N, Honda J. Development of the Concentric Sphere Family Environment Model and companion tools for culturally congruent family assessment. J Transcultural Nursing. 2011 Oct;22(4):350-61. DOI: [10.1177/1043659611414200](https://doi.org/10.1177/1043659611414200)

11. Benzein EG, Hagberg M, Saveman BI. (2008). 'Being appropriately unusual': A challenge for nurses in health-promoting conversations with families. Nursing Inq. 2008 June;15(2):106-15. DOI: [10.1111/j.1440-1800.2008.00401.x](https://doi.org/10.1111/j.1440-1800.2008.00401.x)

12. Friedman MM, Bowden VR, Jones E. Family nursing: Research, theory & practice. Londres: Pearson; 2003.



13. Shimanouchi S, Kazoku SRM. Family Life Skill Index [Internet]. Pensylvaina: International Family Nursing Association; 2015 [cited 2019 Jan 02]. Available from: <https://internationalfamilynursing.org/2015/01/30/family-life-skill-index-kazoku-seikatsu-rikiryo-moderu/>
14. Allen M. The McGill Model of Nursing [Internet]. Montreal: McGill; 1974 [cited 2019 Jan 02]. Available from: <http://www.mcgill.ca/nursing/about/model>
15. Figueiredo MH. Dynamic Model of Family Assessment and Intervention [Internet]. Lisboa: Lusociência; 2012 [cited 2019 Jan 02]. Available from: [http://portal.esenf.pt/www/pk\\_menus.v\\_menu?sessionid=&cmenu=38030](http://portal.esenf.pt/www/pk_menus.v_menu?sessionid=&cmenu=38030)
16. Gottlieb, LN. Strengths-based nursing care: health and healing for persons and family. New York: Springer; 2013.
17. Suzuki S, Watanabe Y. Family nursing theory and practice. 3rd ed. Tóquio: JNAPC; 2006.
18. Wright L. Spirituality, suffering, and illness: Conversations for healing. Calgary: Insync Communications; 2007.
19. Friedmann ML. Assessment of strategies in families effectiveness [Internet] Pancea: Friedmann; 1991 [cited 2019 Jan 02]. Available from: <https://friedemm.info/index.php/assessment-of-strategies-in-nursing>
20. Chávez M, Friedemann ML, Alcorta GA. Evaluación de la escala de efectividad en el funcionamiento familiar. Desarrollo Científ Enferm. 2000 Jan;8(1):12-8.
21. Åstedt-Kurki P, Friedemann ML, Paavilainen E, Tammentie T, Paunonen-Ilmonen M. Assessment of strategies in families tested by Finnish families. Int J Nurs Studies. 2003 Feb;38(1):17-24. DOI: [10.1016/s0020-7489\(00\)00056-0](https://doi.org/10.1016/s0020-7489(00)00056-0)
22. Köhlen C, Friedemann ML. Überprüfung eines Familien-Assessment-Instruments auf der Grundlage der Theorie des systemischen Gleichgewichts. Pflege. 2006 Feb; 19(1):23-32. DOI: [10.1024/1012-5302.19.1.23](https://doi.org/10.1024/1012-5302.19.1.23)
23. Bustamante EG, Ávial IC, Montes CED, Luis A, Cogollo Z. Validity and reliability of the spanish version of the rating scale of family functionality (ASF-E-20). Av enferm [Internet]. 2013 July/Dec [cited 2019 Jan 02];31(2):21-9. Available from: <http://www.scielo.org.co/pdf/aven/v31n2/v31n2a03.pdf>
24. Zenteno-López MA, García-Madrid G, Marínchagoya MA, Marcela-Flores M. Family functioning, therapeutic treatment adherence and glycemic control vs aging adults with type 2 diabetes. J Multidisc Sci [Internet]. 2015 Sept [cited 2019 Jan 02];2(4):207-17. Available from: <https://periodicos.ufpe.br/revistas/revistaenfermagem/index>
- [https://www.researchgate.net/publication/299391403\\_Family\\_Functioning\\_Therapeutic\\_Treatment\\_adherence\\_and\\_glycemic\\_control\\_vs\\_Aging\\_Adults\\_with\\_Type\\_2\\_Diabetes](https://www.researchgate.net/publication/299391403_Family_Functioning_Therapeutic_Treatment_adherence_and_glycemic_control_vs_Aging_Adults_with_Type_2_Diabetes)
25. Lise F, Schwartz E, Friedemann ML, Anderson KH. Proposal for cross-cultural adaptation and validation of the instrument. J Nurs UFPE on line. 2018 Mar; 12(3):808-11. DOI: [10.5205/1981-8963-v12i3a230765p808-811-2018](https://doi.org/10.5205/1981-8963-v12i3a230765p808-811-2018)
26. Galvão CM, Sawada NO, Trevizan MA. Systematic review: a resource that allows for the incorporation of evidence into nursing practice. Rev Latino-Am Enfermagem. 2004;12(3):549-56. DOI: [10.1590/S0104-11692004000300014](https://doi.org/10.1590/S0104-11692004000300014)
27. Moher D, Liberati A, Tetzlaff J, Altman DG. The PRISMA Group. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA Statement. PLoS Med. 2009 Jul;6(7):e1000097. DOI: [10.1371/journal.pmed.1000097](https://doi.org/10.1371/journal.pmed.1000097)
28. Galvão TF, Pansani TSA, Harrad D. Principais itens para relatar Revisões sistemáticas e Meta-análises: a recomendação PRISMA. Epidemiol Serv Saúde [Internet]. 2015 Apr/June [cited 2019 June 15]; 24(2):335-42. DOI: [http://scielo.iec.gov.br/scielo.php?script=sci\\_arttext&pid=S1679-49742015000200017](http://scielo.iec.gov.br/scielo.php?script=sci_arttext&pid=S1679-49742015000200017)
29. Stone PW. Popping the (PICO) question in research and evidence-based practice. Appl Nurs Res [Internet]. 2002 Aug [cited 2019 Jan 02];15(3):197-8. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/12173172>
30. Santos CMC, Pimenta CAM, Nobre MRC. The pico strategy for the research question construction and evidence search. Rev Latino-Am Enfermagem. 2007 June;15(3):508-11. DOI: [10.1590/S0104-11692007000300023](https://doi.org/10.1590/S0104-11692007000300023)
31. Stillwell SB, Fineout-Overholt E, Melnyk BM, Williamson KM. Evidence-based practice, step by step: searching for the evidence. Am j nurs [Internet]. 2010 May;110(5):41-7. DOI: [10.1097/01.NAJ.0000372071.24134.7e](https://doi.org/10.1097/01.NAJ.0000372071.24134.7e)
32. Friedemann ML, Astedt-Kurki P, Paavilainen E. Development of a family the assessment instrument for transcultural use. J Transc Nurs. 2003 Apr;14(2):90-9. DOI: [10.1177/1043659602250612](https://doi.org/10.1177/1043659602250612)
33. Garcia Madrid G, Landeros-Olvera E, Arrijoja-Morales G, Pérez-Garcés AM. Funcionalidad familiar y capacidad física de los adultos mayores en una comunidad rural. Rev Enferm Inst Mex Seguro Soc [Internet]. 2007 Jan [cited 2019 Jan 02];15(1):21-6. Available From: <https://www.medigraphic.com/pdfs/enfermeriaimss/eim-2007/eim071d.pdf>
34. Morales MLC, Mesa YR. Functional family effectiveness with first semester freshmen adolescents in the family at the Fundación Universitaria San Gil. Av Enferm [Internet]. 2009 July [cited 2019 Jan 02];27(2):71-81. Available

from:

<http://www.scielo.org.co/pdf/aven/v27n2/v27n2a08.pdf>

35. Zavala-Rodríguez MR, Ríos-Guerra MC, García-Madrid G, Rodríguez-Hernández CP. Family functionality and anxiety in adult patients with chronic disease. *Aquichán* [Internet]. 2009 Dec [cited 2019 Jan 02];9(3):257-70. Available from: [http://www.scielo.org.co/scielo.php?script=sci\\_arttext&pid=S1657-59972009000300006](http://www.scielo.org.co/scielo.php?script=sci_arttext&pid=S1657-59972009000300006)

36. Báez F, Medina O, Rugerio M, García G. Function overloading and family child care of disabled motor. *Horiz Enferm* [Internet]. 2009 Feb [cited 2019 Jan 02];20(2):11-8. Available from: [http://horizonteenfermeria.uc.cl/images/pdf/20-2/funcionalidad\\_familiar.pdf](http://horizonteenfermeria.uc.cl/images/pdf/20-2/funcionalidad_familiar.pdf)

37. González EFG. Dynamics within families with adolescents who go to school in Paipa. *Av Enferm* [Internet]. 2010 Jan/June [cited 2019 Jan 02];28(1):72-82. Available from: <http://www.scielo.org.co/pdf/aven/v28n1/v28n1a08.pdf>

38. Carrillo RL, Cifuentes PR. Determining the reliability of the family effectiveness instrument. *Av Enferm* [Internet]. 2011 July [cited 2019 Jan 02];29(1):109-19. Available from: <https://revistas.unal.edu.co/index.php/avenferm/article/view/35864/37068>

39. Morales MLC, Aparicio NAS, Dosa GET, Guzmán LJB, Gómez LVE, Noriega SCM. The effectiveness in the functionality of families with teenaged fathers of San Gil. *Rev Univ Ind Santander Salud* [Internet]. 2011 June [cited 2019 Jan 02];43(1):63-9. Available from: <http://www.redalyc.org/articulo.oa?id=343835701009>

40. Montañéz CG, Morales MLC, Araque JC, Cala OX, Hernández BS, Jiménez MN, *et al.* The effectiveness in the functionality of families with a who has tried to commit suicide. *Rev Univ Ind Santander Salud* [Internet]. 2010 May/June [cited 2019 Jan 02];43(1):33-7. Available from: <http://www.scielo.org.co/pdf/suis/v43n1/v43n1a06.pdf>

41. Rueda AG, Acosta CHM. Effectiveness of family functionality in families with pregnant and non pregnant adolescents. *Av Enferm* [Internet]. 2011 Jan/June [cited 2019 Jan 02];29(1):75-86. Available from: <https://revistas.unal.edu.co/index.php/avenferm/article/view/35856/36722>

42. Valle BR. Family functioning in families with preschool children in schools in Bogotá D.C. 2011. *Rev Colomb Enferm* [Internet]. 2012 June [cited 2019 Jan 02];7(7):68-74. Available from: <https://dialnet.unirioja.es/descarga/articulo/4066482.pdf>

43. Castro DB, Guerrero JC, Cerro SV. Family functioning in children with learning difficulties in

school on two public educational institutions of the municipality of Sincelejo. *Rev salud Unisucre* [Internet]. 2013 June [cited 2019 Jan 02];1(1):03-10. Available from:

<http://revistas.unisucre.edu.co/index.php/revisalud/article/view/71/71>

44. Osorno-Navarro MM. Functionality of families of community mothers at child welfare homes in Sincelejo, Colombia. *Curare* [Internet]. 2014 June [cited 2019 Jan 02];1(1):27-33. Available from: <https://pdfs.semanticscholar.org/f029/bece112988c6368d1304cd8fcec35c5546.pdf>

45. Valle BR. Performance level families with children from 3 to 6 years population of a town of Bogota, 2013. *Rev Colomb Enferm* [Internet]. 2015 Oct [cited 2019 Jan 02];11(10):73-81. Available from:

[https://issuu.com/universidadelbosque/docs/rev\\_enfermer\\_a\\_vol11\\_a10](https://issuu.com/universidadelbosque/docs/rev_enfermer_a_vol11_a10)

46. Romero AYP, Perdomo CAR, González EFG. Association of family functionality parent-adolescent in Neiva. *Av Enferm*. 2015;33(1):94-103. DOI: [10.15446/av.enferm.v33n1.40105](https://doi.org/10.15446/av.enferm.v33n1.40105)

47. Velásquez-G VF, Barreto-Zorza YM. Effect of a program of primary health attention on family functionality from grandparents and grandchildren in the municipality of Guapi - Cauca. *Univ Salud*. 2016 Dec;18(3):514-24. DOI: [10.22267/rus.161803.56](https://doi.org/10.22267/rus.161803.56)

48. Anacona CAR, Suárez, YB, Gómez JAM. Family functionality, number of relationships and dating violence in high school students. *Psicol Caribe* [Internet]. 2017 Jan/Apr [cited 2019 Jan 02];34(1):91-100. Available from: <http://www.scielo.org.co/pdf/psdc/v34n1/2011-7485-psdc-34-01-00091.pdf>

49. Gough D. Weight of evidence: a framework for the appraisal of the quality and relevance of evidence. *Res Paper Educ*. 2007 May;22(2):213-28. DOI: [10.1080/02671520701296189](https://doi.org/10.1080/02671520701296189)

50. Martins GA. Sobre confiabilidade e validade. *RGBN* [Internet]. 2006 Jan/Apr [cited 2019 Jan 02];8(20):01-12. Available from: <https://www.redalyc.org/pdf/947/94782002.pdf>

51. Anderson KH, Friedemann, ML. Strategies to teach family assessment and intervention through an online international curriculum. *J Fam Nurs* [Internet]. 2010 May [cited 2019 Jan 02];16(2):213-33. DOI: [10.1177/1074840710367639](https://doi.org/10.1177/1074840710367639)

**Corresponding author**

Fernanda Lise

Email: [fernandalise@gmail.com](mailto:fernandalise@gmail.com)

Submission: 2019/08/13

Accepted: 2019/11/12

Copyright© 2019 Journal of Nursing UFPE on line/JNOUL.



This is an Open Access article distributed under the terms of the [Creative Commons Attribution-ShareAlike 4.0 International License](https://creativecommons.org/licenses/by-sa/4.0/). This license lets others distribute, remix, tweak, and build upon your work, even commercially, as long as they credit you for the original creation. Recommended for maximum dissemination and use of licensed materials.