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ORIGINALES

Family assessment instrument based on the Nanda taxonomy II domains model

Instrumento de valoración familiar por el modelo de dominios de la taxonomía II de NANDA

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ABSTRACT

Introduction: A family is healthy when a balance among the control, growth, stability and spirituality of each of its members is achieved with the surrounding environment [(2)].

Objective: To design a validated instrument that permits family assessment based on the North American Nursing Diagnosis Association (NANDA) Taxonomy II domains model.

Methodology: A quantitative design, of the psychometric technological type with descriptive data analysis. The sample for the validation of the instrument comprised eight nursing professionals. In addition, a pilot test was conducted; 40 families from the cities of Bucaramanga and Santa Marta, Colombia, including 20 from each city, participated. For the content validation, the Modified Lawshe's Model was considered.

Results: There was a general consensus among the evaluating judges regarding the validation of the content of the instrument. Cronbach's alpha was 0.847. Regarding Spearman's rho nonparametric correlation, there was a good correlation among the items considered by the instrument, with a value of *r* greater than 0.5, a significance level of <0.05 and a *p*-value of zero.

Conclusions: A bibliographical review was performed, according to the context of family. The Family Assessment Instrument, based on the NANDA Taxonomy II Domains Model and consisting of 45 items, was designed. Consensus among the evaluating judges, a reliability by means of Cronbach's alpha value greater than 0.7 and significant Spearman's rho nonparametric correlations among some items of the instrument were found.

Keywords: Family; assessment; instrument; domains; taxonomy

RESUMEN

Introducción: Una familia es saludable cuando se logra un equilibrio entre el control, crecimiento, la estabilidad y la espiritualidad de cada uno de sus integrantes con el entorno que los rodea [(2)].

Objetivo: Diseñar un instrumento validado que permita la valoración familiar por el Modelo de Dominios de la Taxonomía II de NANDA.

Metodología: Diseño cuantitativo, de tipo tecnológica psicométrica con análisis de datos descriptivos. La muestra para la validación del instrumento fue de 8 profesionales en enfermería; además, se realizó una prueba piloto en donde participaron 40 familias pertenecientes a las ciudades de Bucaramanga y Santa Marta, Colombia, 20 para cada ciudad. Para la validación de contenido, se tuvo en cuenta el Modelo de Lawshe Modificado.

Resultados: Existió un consenso general entre los jueces evaluadores en la validación de contenido del Instrumento, el Coeficiente Alpha de Cronbach fue de 0.847, la correlación no paramétrica Rho de Spearman, arrojó una buena correlación entre los ítems contemplados en el instrumento, con un valor de *r* mayor de 0.5 y un nivel de significancia < de 0.05, con un valor de *p* de cero.

Conclusiones: Se encontró consenso entre los jueces evaluadores, una fiabilidad por medio del Alpha de Cronbach superior a 0.7 y correlaciones no paramétrica Rho de Spearman significativas entre algunos ítems del instrumento.

Palabras clave: Familia; valoración; instrumento; dominios; taxonomía

INTRODUCTION

The family in Colombia is considered to be "the fundamental unit of society. It is formed through natural or legal ties, by the free decision of a man and a woman to contract marriage or by the responsible will to conform it"[(1)]. Therefore, it is a primordial subject of study throughout the history of humanity and in the professional practice of nursing.

The objective of nursing care is to perform interventions that generate well-being in the person, family or communities, depending on the specific needs of each. A family is healthy when a balance among the control, growth, stability and spirituality of each of its members is achieved with the surrounding environment[(2)]. To provide care that fully responds to the needs of each family, it is essential to have assessment tools in nursing that enable the identification of problems or risk factors that generate or may generate changes in the health status of the nuclear family.

There are families designated as multi-problematic, which are considered to be "a high-risk vulnerable system for all its members"[(3)]. For this reason, it is important to design, evaluate and make known the programs that effectively contribute to stopping the dysfunction with which this type of family presents.[(3)]

However, few instruments have been designed for this purpose in nursing. Once the family is correctly assessed correctly, the nursing professional is enabled to perform appropriate interventions according to the state in which the family is found. Family assessment instruments permit the identification of multiple factors that, by analyzing the result yielded, can observe the extent to which the family is functional or dysfunctional and what role is can be intervened in the health-disease process. Among these instruments are the family APGAR, the family diagram and the ecomap, among others, which have been used for several years in the work of nursing[(4)]. These tools

provide an important input into the family assessment but are not oriented toward the North American Nursing Diagnosis Association (NANDA) Taxonomy II.

Lima, Lima, Jimenez and Domínguez establish that the family assessment should consider "general data about the family, the composition and structure, the family life cycle, the family social climate, family integrity, the operation or family dynamics, family strength, family coping and the study of the events that affect them"[5]. For this reason, the importance of creating and validating the Family Assessment Instrument based on the NANDA 2012-2014 Taxonomy II domains model is established because, in professional practice, it is essential to have a disciplined standardized language reference that addresses the various dimensions that conform to the family in the care process.

Some diagnostic labels can be used in the process of nursing care when the family is intervened with, such as the "disposition to improve family coping, disposition to improve family processes and dysfunctional family processes including alcoholism, decisional conflict, family coping, parental deterioration, ineffective management of the family therapeutic regimen and deterioration in household maintenance, among others"[6]. Most of these diagnostic labels are reflected in the domains of Health Promotion, Role/Relationships, Coping/Stress Tolerance and Life Principles present in the 2012-2014 NANDA Taxonomy II.

This instrument seeks to identify the state of health of the family by assessing the four domains noted above, focusing on three areas established in the Systems Theory of Betty Neuman because, through them, they enable and facilitate the nurse in creating a plan of care according to the needs of each family.

OBJECTIVES

- To design a validated instrument that enables family assessment based on the NANDA Taxonomy II domains model.
- To review studies related to the NANDA Taxonomy II domains model and the Modified Lawshe's Model.
- To design an instrument to assess the state of health of the family based on the NANDA 2012-2014 Taxonomy II domains model.
- To validate the Family Assessment Instrument based on the 2012-2014 NANDA Taxonomy II domains model through validation by experts and face validation or content validation.

MATERIALS AND METHODS

A quantitative design, of the psychometric technological type with descriptive data analysis and non-probability convenience sampling, was used. The population for the content validation and face or appearance validation for this instrument consisted of eight nurses with an undergraduate educational level, specialization and mastery who had knowledge about the following: the nursing process, according to the NANDA Taxonomy II, family assessment instruments and research methodology. A pilot test was conducted; 40 families belonging to a neighborhood in the cities of Bucaramanga and Santa Marta, Colombia, with 20 for each city, participated. They had to reside permanently in the neighborhood of these cities. They had to be in the house at the time of answering the questions of the instrument, and they had to be of legal age (over 18 years old). The project was divided into two phases.

Phase I (Literature review and design of the instrument):

In this phase, a bibliographical review of the family, family types, family health, family functionality, family assessment and family assessment tools such as the family diagram, family APGAR and ecomap was performed. Betty Neuman's theory was reviewed with some of the areas present in the theory, i.e., the physiological, psychological and sociocultural areas. Additionally, a review of some domains of the 2012-2014 NANDA Taxonomy II, i.e., Health Promotion, Role/Relationships, Coping/Stress Tolerance and Life Principles, which were the fundamental basis for the design of the instrument, was performed.

The Family Assessment Instrument based on the NANDA Taxonomy II Domains Model was designed; it contains 45 questions distributed over the four domains noted above; according to the literature found in this investigation, these were the predominant domains for family assessment. In the process of developing the instrument, these domains are called levels. Three areas were also considered for its preparation, i.e., physiological, psychological and sociocultural research areas, because it has been shown that there is a relationship between these areas and the health behavior of a family. Louro argues that there are psychological, social, genetic, environmental, relational and biological aspects that participate in the relationship between health and the nuclear family, in which the family "provides health-enhancing experiences and constructively and creatively assumes the demands that arise from each stage of the biopsychosocial development of its members and of the family and social life"[(7)].

To perform the scoring of each of the items of the instrument, a modified Likert scale was used where Never is scored as 1 point, Sometimes is scored as 2 points, Almost always is scored as 3 points, and Always is scored as 4 points. It should be noted that, for some of the items, the scores changed to: Never: 4 points; Sometimes: 3 points; Almost always: 2 points; and Always: 1 point. The reason is that these items make reference to unhealthy behaviors. Furthermore, when conducting the pilot test in the target population, socio-demographic data were collected using 21 dichotomous and multiple-choice questions.

Phase II (Instrument validation phase):

During the content validation process, the Modified Lawshe's Model, which enables the content validity to be evaluated, was taken as a reference. This model allows a reduced number of expert judgments, requiring minimum values for the acceptance of the items in general, particularly if there are few experts, which is acceptable in research. Additionally, this model began on the basis of the model proposed by Lawshe, who states that a group of experts should evaluate the content of a test or group of items; these judges must make a judgment using one of the following three categories: essential, useful but not essential and not necessary[(8)].

Tristan states that, after obtaining this information, one proceeds to review the number of agreements in the responses. For the instrument to demonstrate validity, the experts must have agreed with a minimum of 50% in the essential category box. To perform the calculation of agreement among the panelists in this category (essential), according to the Modified Lawshe's Model, the calculation of the Content Validity Ratio (CVR') must be performed. After calculating the CVR', the calculation of the Content

Validity Index (CVI), which indicates the average of the acceptable items, can then be performed.

In addition, this author states that:

> For practical purposes, we can say that the CVR' should provide at least 58% as being acceptable; this value is constant, regardless of the number of panelists. Thus, both the problems of the size effect and the interpretation of the agreements in the CVR' are resolved. As the CVR' does not depend on N, when N has the CVR' remains constant at 0.5823, which leads to a condition of equal demand in all cases, regardless of the number of panelists, which seems much more realistic than that established in the CVR model proposed by Lawshe.
> The individual responsible for the design of the instrument can summon the members of the content validity panel to perform a review in cases in which the minimum consensus of 58% in the "essential" category is not achieved. This review will enable the rescue of some of the items for which there was no agreement or, if necessary, suggest modifications for future revisions. Because the CVI is the average of the acceptable items based on the CVR', it is expected that the CVI should provide values greater than 0.58; accordingly, there arises an interesting application to rule on the validity of an instrument or of a bank of items that can be posed as an extension of Lawshe's model [(9)].

Upon completion of the information collection process, the information was organized and tabulated to make corrections to the instrument, for which a professional statistician was consulted to help in the process of organizing the information and to conduct the analysis of the information according to the Modified Lawshe's Model. The face or appearance validity was analyzed to check the comprehension and clarity of each item; this issue also reviewed by the panel of experts to whom a format that allowed for the evaluation of each item of the instrument to be validated was delivered, allowing them to write their respective observations and recommendations to improve the instrument and make the proposed corrections.

For Sanchez and Echeverry, in the face or appearance validity, "the scale seems to measure what should be measured"[(10)] and Díaz, Muñoz and De Vargas establish that, in this validation, "the subjective appreciation of experts and others who have the same characteristics of the potential users" should be taken as references, "and, using the criteria of clarity, precision and comprehension, the face validity is determined."[(11)]

After making the pertinent corrections, a pilot test was conducted with 20 families belonging to a neighborhood in the city of Bucaramanga, Santander, Colombia, and 20 families belonging to a neighborhood of the city of Santa Marta, Magdalena, Colombia. These families were selected by non-probability convenience sampling and accepted participation in the research. Prior to the acceptance of participation in the research project by the families, the explanation of the purpose of the research project was provided through direct communication and information referred to in the delivery of the informed consent. Then, the data collection and the implementation of the pilot test in these families were initiated.

Finally, we proceeded to tabulate the information obtained and evaluate the results of the pilot test to verify the applicability of each of the items of the Family Assessment Instrument.

RESULTS

Table 1. Results of the *Calculation of the Content Validity Ratio (CVR')* by the Modified Lawshe's Model

N (# Panelists)	Item	Essential	Useful but not Essential	Not Necessary	CVR'
8	1	7	1	0	0.88
8	2	8	0	0	1.00
8	3	8	0	0	1.00
8	4	6	1	1	0.75
8	5	8	0	0	1.00
8	6	4	3	1	0.50
8	7	7	1	0	0.88
8	8	7	1	0	0.88
8	9	6	1	1	0.75
8	10	8	0	0	1.00
8	11	4	4	0	0.50
8	12	5	3	0	0.63
8	13	7	1	0	0.88
8	14	8	0	0	1.00
8	15	8	0	0	1.00
8	16	8	1	0	0.88
8	17	7	0	1	0.88
8	18	7	1	0	0.88
8	19	7	1	0	0.88
8	20	7	1	0	0.88
8	21	7	1	0	0.88
8	22	7	1	0	0.88
8	23	7	1	0	0.88
8	24*	5	2	0	0.63
8	25	5	3	0	0.63
8	26	7	1	0	0.88
8	27	6	2	0	0.75
8	28	7	1	0	0.88
8	29	8	0	0	1.00
8	30	6	1	1	0.75
8	31	6	2	0	0.75
8	32	8	0	0	1.00
8	33	8	0	0	1.00
8	34	6	2	0	0.75
8	35	8	0	0	1.00
8	36	5	1	2	0.63
8	37	7	1	0	0.88
8	38	6	0	2	0.75
8	39	7	1	0	0.88
8	40	8	0	0	1.00
8	41	8	0	0	1.00
8	42	8	0	0	1.00

8	43	6	2	0	0.75
8	44	5	1	2	0.63
8	45	7	1	0	0.88

*A judge did not answer because he did not understand the item.

Source: Family Assessment Instrument

In establishing the analysis of the data obtained with the validation of experts, in the Family Assessment Instrument based on the NANDA Taxonomy II Domains Model, by the Modified Lawshe's Model, it can be determined that 43 of the items established in the instrument possess valid content, achieving a general consensus with most of the judges. Only items 6 and 11 did not have a *CVR'* greater than 0.58.

Table 2. Results of the *Content Validity Index (CVI)* by the Modified Lawshe's Model

Item	CVR'
1	0.88
2	1.00
3	1.00
4	0.75
5	1.00
6	0.50
7	0.88
8	0.88
9	0.75
10	1.00
11	0.50
12	0.63
13	0.88
14	1.00
15	1.00
16	0.88
17	0.88
18	0.88
19	0.88
20	0.88
21	0.88
22	0.88
23	0.88
24*	0.63
25	0.63
26	0.88
27	0.75
28	0.88
29	1.00
30	0.75
31	0.75
32	1.00
33	1.00
34	0.75
35	1.00
36	0.63

37	0.88
38	0.75
39	0.88
40	1.00
41	1.00
42	1.00
43	0.75
44	0.63
45	0.88
SUM OF ALL THE ITEMS	38.00
SUM OF ACCEPTABLE ITEMS	37.00

*A judge did not answer because he did not understand the item.
Source: Family Assessment Instrument

When calculating the *CVR'* of the Family Assessment Instrument based on the NANDA Taxonomy II Domains Model, only items 6 (Some members of your family are apathetic, tired or unmotivated in regard to recreational activities.) and 11 (In your family, minors ask for permission to perform activities outside of the house.) did not meet a CVR' (according to the Modified Lawshe's Model) constant of greater than 0.58. Thus, the review of the data obtained by each of the judges was performed again; the observations that each of them established for each item were analyzed, and consequently, a modification of the items was obtained.

Face or Appearance Validity

Within the standards established in the second phase of this investigation, it was determined that face or appearance validity was to be analyzed using a pilot test in which two groups would be formed: a group of subjects who are going to be measured with the scale and a group of experts who will analyze the scale and establish whether the instrument measures what it proposes. Therefore, before applying the Family Assessment Instrument based on the NANDA Taxonomy II Domains Model designed in the first phase, the observations made by the evaluating judges with respect to the appearance, order and wording of each of the 45 items established in the instrument designed were considered.

When analyzing the applicability of the instrument through the pilot test in the two communities belonging to the cities of Bucaramanga and Santa Marta, Colombia, no observations were found with respect to the items. That is, each of the items was stated in a clear, simple and understandable manner for these communities, as indicated by the participants in this test.
Once the data obtained from the pilot test were tabulated, the reliability of the instrument was analyzed using Cronbach's alpha coefficient, which yielded a result of 0.847.

Spearman's rho nonparametric correlation

Subsequent to analyzing the reliability of the instrument, the correlations of each item with the others were performed; to that end, Spearman's rho parametric correlation was performed because the variables of this instrument are ordinal, not numeric or nominal[12].

Table 3 shows the item 7, which belongs to the Health Promotion domain, and items 12, 19, 20, 21 and 23, which belong to the Role/Relationships domain, indicating that there is a significant correlation between these two domains, which is shown by Giraldo, Toro, Macías, Valencia and Palacio when establishing that Health Promotion, according to the theoretical model of Nola Pender, is related to healthy lifestyles in which "cognitive-perceptual factors of individuals are modified by situational, personal and interpersonal conditions, for which culture is considered due to the manner in which it influences decision-making by people"[13].

Table 3. Spearman's rho nonparametric correlations between item 7 and other items

Item	Other items	Value of r	Value of *p*
7. Your family comes to medical consultation or to the early detection and specific protection programs.	12. In your family, disciplinary control is performed and sanctions are applied to minors.	0.568	0
	19. The social life of your family has been affected because of the care provided to the dependent person (physical and/or mental limitations).	0.699	0
	20. Because of providing care to the dependent person (physical and/or mental limitations), family unity has been lost.	0.692	0
	21. In your family, because of providing care to the dependent person (physical and/or mental limitations), some negative feelings, such as anger, impotence and intolerance, have been present.	0.687	0
	23. In your family, there is some alteration in the health of some member because of providing care to the dependent person (physical and/or mental limitations).	0.580	0

Source: Family Assessment Instrument

The items listed in Tables 4 and 5 belong to the Role/Relationships domain, a domain that is very important at the time of performing the family assessment because the environment in which human beings surround themselves positively or negatively influences their physical and mental health. Biological, economic, educational and spiritual aspects have a marked importance in the family because, through them, "values, beliefs, knowledge, criteria and judgments that determine the health of individuals and the collective of its members are developed"[14]. In addition, the assessment of this domain is important in reviewing the connections and associations, both negative and positive, among all members of the nuclear family or groups of persons and the means by which such connections are demonstrated, that is, to assess compliance with the roles within the family and, simultaneously, to identify the possible interventions that are necessary to correct inappropriate behavior[15].

Table 4. Spearman's rho nonparametric correlations between item 11 and another item

Item	Other item	Value of *r*	Value of *p*
11. In your family, minors ask for permission to perform activities outside of the house.	13. In your family, minors communicate their problems and needs to the adults.	0.626	0.00

Source: Family Assessment Instrument

Table 5. Spearman's rho nonparametric correlations between item 13 and other items

Item	Other items	Value of r	Value of *p*
13. In your family, minors communicate their problems and needs to the adults.	19. The social life of your family has been affected because of the care provided to the dependent person (physical and/or mental limitations).	0.555	0
	20. Because of providing care to the dependent person (physical and/or mental limitations), family unity has been lost.	0.567	0
	21. In your family, because of providing care to the dependent person (physical and/or mental limitations), some negative feelings, such as anger, impotence and intolerance, have been present.	0.542	0
	23. In your family, there is some alteration in the health of some member because of providing care to the dependent person (physical and/or mental limitations).	0.571	0

Source: Family Assessment Instrument

In Tables 6 and 7, items 15 and 17, which belong to the Role/Relationships domain, and item 41, which belongs to the Life Principles domain, are found to be significant. The results indicate that there is a correlation between these two domains and, as stated by Villalobos, some of the families in this study experienced difficulties in "forms of participation, and, therefore, the sense of belonging to the group was affected in communication between family members"[2], which leads to the idea that based on the education, culture, values, beliefs and principles of each family, they can generate positive or negative behaviors in the physical and psychological health of the members who constitute the family.

Table 6. Spearman's rho nonparametric correlations between item 15 and another item

Item	Other item	Value of r	Value of *p*
15. In your family, when one of the members has problems, he/she is given support.	41. In your family, you have desires to improve the coping capacity, hope, joy and meaning of life in the face of a difficulty.	0.547	0

Source: Family Assessment Instrument

Table 7. Spearman's rho nonparametric correlations between item 17 and another Item.

Item	Other item	Value of r	Value of *p*
17. In your family, you use authority as a corrective method (punishment or sanction against a fault or inappropriate behavior by any member of the family).	41. In your family, you have desires to improve the coping capacity, hope, joy and meaning of life in the face of a difficulty.	0.541	0

Source: Family Assessment Instrument

In Tables 8, 9 and 10, items 19, 20 and 21, which belong to the Role/Relationships domain, are shown. In the research results, it was found that, apart from having a correlation with the items of the same domain (items 20, 21, 22 and 23), they are also related to item 32, which belongs to the Coping/Stress Tolerance domain. This finding is demonstrated in the literature review, in which Gomez and Kotlierenco want to deepen the concept of family resilience as a useful component in the "psychosocial, clinical and health interventions with highly vulnerable or multi-problematic families".[16] These authors establish that, in this concept, some factors called protectors intervene. Protectors significantly intervene in the functioning of families to healthily preserve them and prepare them for stressful situations, such as participating in the traditions, routines and celebrations with family members.[16]

Table 8. Spearman's rho nonparametric correlations between item 19 and other items

Item	Other items	Value of r	Value of *p*
19. The social life of your family has been affected because of the care provided to the dependent person (physical and/or mental limitations).	20. Because of providing care to the dependent person (physical and/or mental limitations), family unity has been lost.	0.954	0
	21. In your family, because of providing care to the dependent person (physical and/or mental limitations), some negative feelings, such as anger, impotence and intolerance, have been present.	0.942	0
	22. In your family harmony prevails (understanding and dialogue among household members).	0.568	0
	23. In your family, there is some alteration in the health of some member because of providing care to the dependent person (physical and/or mental limitations).	0.815	0
	32. Your family has the ability to overcome difficult times.	0.568	0

Source: Family Assessment Instrument

Table 9. Spearman's rho nonparametric correlations between item 20 and other items

Item	Other items	Value of r	Value of *p*
20. Because of providing care to the dependent person (physical and/or mental limitations), family unity has been lost.	21. In your family, because of providing care to the dependent person (physical and/or mental limitations), some negative feelings, such as anger, impotence and intolerance, have been present.	0.965	0
	23. In your family, there is some alteration in the health of some member because of providing care to the dependent person (physical and/or mental limitations).	0.870	0
	32. Your family has the ability to overcome difficult times.	0.552	0

Source: Family Assessment Instrument

Table 10. Spearman's rho nonparametric correlations between item 21 and other items

Item	Other items	Value of r	Value of *p*
21. In your family, because of providing care to the dependent person (physical and/or mental limitations), some negative feelings, such as anger, impotence and intolerance, have been present.	23. In your family, there is some alteration in the health of some member because of providing care to the dependent person (physical and/or mental limitations).	0.875	0
	32. Your family has the ability to overcome difficult times.	0.547	0

Source: Family Assessment Instrument

In Tables 11, 12, 13 and 14, the following items are presented: item 22, which belongs to the Role/Relationships domain; items 26, 27, 28, 29 and 31, which belong to the Coping/Stress Tolerance domain; and item 45, which belongs to the Life Principles domain. These findings are consistent with the previous findings by Raile and Marriner the theory of Betty Neuman and by Lima, Lima and Saez, in which the relationship that exists between them for family assessment is established[(6), (17)].

Table 11. Spearman's rho nonparametric correlations between item 22 and other items

Item	Other items	Value of r	Value of *p*
22. In your family, harmony prevails (understanding and dialogue among household members).	26. You seek solutions in the face of military conflicts.	0.611	0
	27. You recognize the concerns of family members.	0.574	0
	45. Your family complies with all medical indications to improve its state of health.	0.531	0

Source: Family Assessment Instrument

Table 12. Spearman's rho nonparametric correlations between item 26 and another item

Item	Other items	Value of r	Value of *p*
26. You seek solutions in the face of military conflicts.	27. You recognize the concerns of family members.	0.750	0

Source: Family Assessment Instrument

Table 13. Spearman's rho nonparametric correlations between item 27 and other items

Item	Other items	Value of r	Value of *p*
27. You recognize the concerns of family members.	28. Some member of your family provides support, help and understanding to overcome crises.	0.695	0
	29. The members of your family demonstrate positive responses to a difficult situation.	0.585	0
	31. In your family, the parents encourage their children to perform activities that demand difficulty.	0.581	0

Source: Family Assessment Instrument

Table 14. Spearman's rho nonparametric correlations between item 28 and another item

Item	Other item	Value of r	Value of *p*
28. Some member of your family provides support, help and understanding to overcome crises.	29. The members of your family demonstrate positive responses to a difficult situation.	0.686	0

Source: Family Assessment Instrument

In Table 15, items 40 and 42 belong to the Life Principles domain, an important domain at the time of performing the family assessment because culture is an "important part of the identity of each person, and it is necessary to consider the cultural aspects that influence health care to respond to a real need for nursing: caring for people from different cultures who think and act in a particularly special way"[18]. In addition, according to the theory of diversity and the universality of cultural care of Madeline Leinner, culture "refers to the values, beliefs, norms, symbols, practices and lifestyles of individuals, groups or institutions, learned, shared and passed down from one generation to another"[17]. Therefore, before any therapeutic intervention, it is essential to investigate and to determine the existing beliefs in the family to achieve the intended therapeutic objective in the process of nursing care.

Table 15. Spearman's rho nonparametric correlations between item 40 and another item

Item	Other item	Value of r	Value of *p*
40. In your family, they need to believe in a supreme being to perform everyday activities.	42. Your family participates in religious activities.	0.563	0

Source: Family Assessment Instrument

DISCUSSION

The process of nursing care "has as its objective meeting the needs of the person, the family and communities; for this reason, it requires its own valid assessment instrument"[19]. There are some domains included in the NANDA Taxonomy II that are appropriate at the time of the family intervention, i.e., Health Promotion, Role/Relationships, Coping/Stress Tolerance and Life Principles.

The findings obtained in the research are related to those established by Raile and Marriner and in the theory of Betty Neuman because, for this theorist, "the stressful elements are tension-producing stimuli that are generated within the limits of the client system and that give rise to a result that can be positive or negative"[17], which may be the result of three forces that intervene in the health of the person, families and as units. These forces include intrapersonal forces, i.e., those factors that are specific to the individual; interpersonal forces, i.e., those forces between one or more individuals and that are related to the role; and extrapersonal forces, i.e., those forces that are products of factors that are external to the individual, in addition to economic aspects[17].

In addition, according to the statement by Lima, Lima and Saez, for the nursing professional to perform the nursing care process in the family, it is necessary to identify the "description of the family by studying the family dynamics, family defense mechanisms and stressing agents"[6] to thus be able to address the problems that arise in this family nucleus. The description of the family involves how the family is integrated, the stages of the life cycle of the family, its beliefs, values, habits, ethnic aspects, religion, socioeconomic level and health problems, among others. The family dynamics includes the aspects in which communication, rules, roles, relationships and the adaptation of the family group are analyzed. The family defense mechanisms consist of skills, attitudes that are related to the state of health, knowledge, decision-making, resources, experiences, social support, coping with family members in situations or problems and, finally, the stressing agents in which life events and the stages of the life cycle of the family intervene[6].

Through this research, it was demonstrated that the development of tools for family assessment, focused on standardized language, are of great importance because they make it possible to guide the nursing professional in the performance of care according to the needs encountered in the population in which the intervention will occur. It is essential to make use of disciplinary references that significantly contribute to the nursing profession to thus perform an appropriate intervention based on proper theoretical references belonging to the profession.

CONCLUSIONS

A literature review concerning the family, family types, family health, family functionality, family assessment and family assessment tools such as the family diagram, family APGAR and ecomap was performed. It should be noted that the application of the theory of Betty Neuman to some of the areas present in the theory, i.e., physiological, psychological and sociocultural areas, was reviewed. Additionally, a review of some domains of the 2012-2014 NANDA Taxonomy II, i.e., Health Promotion, Role/Relationships, Coping/Stress Tolerance and Life Principles, was performed.

The Family Assessment Instrument based on the NANDA Taxonomy II Domains Model was designed, for which content validation was analyzed using the Modified Lawshe's Model, through the judgment of a group of nurses with an undergraduate educational level, specialization and mastery, who had knowledge about the nursing process according to NANDA Taxonomy II, family assessment instruments and research methodology. A general consensus on the items presented in the instrument was obtained, with 43 of them having a CVR' of greater than 0.58, in accordance with the provisions of the Modified Lawshe's Model. Only two of the items, i.e., items 6 (Some members of your family are apathetic, tired or unmotivated about recreational activities.) and 11 (In your family, minors ask for permission to perform activities outside of the house.), did not meet the minimum constant indicated by the Modified Lawshe's Model. Thus, the review of the data was performed again by each of the judges, and the observations established for each item were analyzed, resulting in modifications of the items.

The face or appearance validity was analyzed to check the comprehension and clarity of each item established in the instrument designed. It was reviewed by the panel of experts to whom a format that allowed for the assessment of each item of the instrument to be validated was delivered, allowing them to write their respective observations and recommendations for improving the instrument. Then, a pilot test was conducted; 40 families in two communities belonging to the cities of Bucaramanga and Santa Marta, Colombia (20 families each) participated. No comments were found with respect to the items, i.e., each item was stated in a clear, simple and understandable manner for these communities, according to what the participants in this test indicated.

After performing the data collection in the pilot test, we proceeded to tabulate the information obtained, and the reliability of the instrument was established by means of Cronbach's alpha coefficient, which yielded a result of 0.847.

Analyzing Spearman's rho nonparametric correlation, it was established that the four domains used in the Family Assessment Instrument (Health Promotion, Role/Relationships, Coping/Stress Tolerance and Life Principles), established in the 2012-2014 NANDA, are related to each other, achieving a value of r greater than 0.5, which indicates a good correlation between the items covered by the instrument, and a p-value of 0, i.e., having a level of significance of <0.05.

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