VALIDATION OF THE KNOWLEDGE, ATTITUDE AND PRACTICE SURVEY ON NURSING ASSISTANCE DURING DELIVERY AND CHILDBIRTH

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ABSTRACT

Objective: to validate the Knowledge, Attitude and Practice survey on Nursing assistance during delivery and childbirth based on the concepts of Florence Nightingale's Environmental Theory and the recommendations of the National Guidelines for Assistance to Normal Delivery.

Method: this is a methodological study in which the Knowledge, Attitude and Practice survey was elaborated, and validated regarding content and appearance. Data collection was carried out between the months of July and December 2017. The validations were performed by 22 nurses who work in delivery and childbirth care and the data were analyzed using the Content Validity Index and the Binomial test.

Results: content and face validation evidenced that the agreement among the experts was satisfactory (Content Validity Index greater than 0.80 for all items evaluated).

Conclusion: it is concluded that the survey can be used to assess the nurses' Knowledge, Attitude and Practice in relation to the Nursing assistance provided during delivery and childbirth.

DESCRIPTORS: Knowledge, attitudes and practices in health. Nursing care. Obstetric Nursing. Validation studies. Nursing theory.

VALIDAÇÃO DO INQUÉRITO CONHECIMENTO, ATITUDE E PRÁTICA SOBRE A ASSISTÊNCIA DE ENFERMAGEM AO PARTO E NASCIMENTO

RESUMO

Objetivo: validar o inquérito Conhecimento, Atitude e Prática sobre a assistência de enfermagem ao parto e nascimento com base nos conceitos da Teoria Ambientalista de Florence Nightingale e nas recomendações da Diretriz Nacional de Assistência ao Parto Normal.
Método: trata-se de um estudo metodológico, no qual foi construído o inquérito Conhecimento, Atitude e Prática, validado quanto ao conteúdo e aparência. A coleta de dados foi realizada entre os meses de julho e dezembro de 2017. As validações foram realizadas por 22 enfermeiros que atuam na assistência ao parto e nascimento, e os dados foram analisados por meio do Índice de Validade de Conteúdo e teste Binomial.
Resultados: a validação de conteúdo e de aparência evidenciou que a concordância entre os especialistas foi satisfatória (Índice de Validade de Conteúdo maior que 0,80 para todos os itens avaliados).
Conclusão: conclui-se que o inquérito pode ser utilizado para avaliar o Conhecimento, a Atitude e a Prática dos enfermeiros em relação à assistência de enfermagem ao parto e nascimento.

DESCRITORES: Conhecimentos, atitudes e práticas em saúde. Cuidados de enfermagem. Enfermagem obstétrica. Estudos de validação. Teoria de enfermagem.

VALIDACIÓN DE LA ENCUESTA DE CONOCIMIENTO, ACTITUD Y PRÁCTICA SOBRE LA ASISTENCIA DE ENFERMERÍA EN EL PARTO Y EL NACIMIENTO

RESUMEN

Objetivo: validar la encuesta de Conocimiento, Actitud y Práctica sobre la asistencia de Enfermería en el parto y el nacimiento sobre la base de los conceptos de la Teoría Ambientalista de Florence Nightingale y de las recomendaciones de la Directriz Nacional de Asistencia en Partos Normales.
Método: estudio metodológico, en el que se elaboró una encuesta de Conocimiento, Actitud y Práctica, validado en relación a su contenido y aspecto. La recolección de datos se realizó entre los meses de julio y diciembre de 2017. Las validaciones estuvieron a cargo de 22 enfermeros que se desempeñan en la asistencia al parto y el nacimiento, y los dados se analizaron por medio del Índice de Validez de Contenido y la Prueba Binomial.
Resultados: la validación de contenido y de apariencia dejó en evidencia que la concordancia entre los especialistas fue satisfactoria (Índice de Validez de Contenido superior a 0,80 para todos los ítems evaluados).
Conclusión: se concluye que la encuesta puede ser utilizada para evaluar el Conocimiento, la Actitud y la Práctica de los enfermeros en relación con la asistencia de Enfermería durante el parto y el nacimiento.

DESCRIPTORES: Conocimientos, actitudes y prácticas en salud. Atención de Enfermería. Enfermería Obstétrica. Estudios de validación. Teoría de Enfermería.

INTRODUCTION

Humanization in the obstetric scenario is based on the principle of valuing and respecting people in view of their needs and individualities. It involves the promotion of healthy delivery and childbirth, with the aim of avoiding negative outcomes in the mother and in the newborn. However, in Brazil, it is considered that health care in the pregnancy-puerperal period is a challenge, even with the creation of policies and programs that encourage the services to create welcoming spaces that stimulate family participation and women's empowerment with respect to their body and reproductive process[1].

Changes in the contexts of delivery and childbirth are currently being sought. However, this was not always the reality, since childbirth, an essentially female event that occurred at home, has become a hospital- and medical-centered event, with high rates of interventions and cesarean sections[2]. Thus, humanization of delivery and childbirth seeks to break with this model by adopting proven beneficial obstetric practices, proposing advances in the field of public policies in order to rescue women's autonomy over their parturition process[3-4].

Worldwide, the publication of the Good Practices in Delivery and Childbirth Care, by the World Health Organization (WHO), was the starting point for discussions on obstetric care, influencing the changes. In this way, the countries restructured their care models by encouraging the expansion of access, the right to safe birth and neonatal care[5].

In Brazil, there are initiatives such as the implementation of the Humanization Program for Delivery and Childbirth, the National Humanization Policy (*Política Nacional de Humanização*, PNH), the Stork Network (*Rede Cegonha*) and the National Guidelines for Assistance to Normal Delivery (*Diretrizes Nacionais de Assistência ao Parto Normal*, DNAPN). They document the qualification of obstetric care, representing milestones in the search for the transformation of the way of being born in the country[5].

Within this context of humanized care, Nursing is the ideal profession to assist delivery and childbirth, as nurses have developed specific skills through the humanistic model, which seeks to offer holistic care and the active participation of women in the birth process by respecting their choices. This care prioritizes ethics, dignity and the person's rights and safety[6].

It is relevant to assess the structure and processes of health care for women and newborns during labor, delivery and puerperium, as it contributes to the recognition of the strengths and weaknesses of this care, as well as directing the planning of actions to improve quality of care. To this end, it is indispensable to use valid instruments that allow obtaining reliable data to support the reassessment and reformulation of the services.

This study proposed the creation and validation of the Knowledge, Attitude and Practice (KAP) survey, based on the concepts of Florence Nightingale's Environmental Theory, which emphasizes that nurses need to build a favorable environment and balance the elements of the physical, psychological and social environment so that patients can have minimum effort expenditure, preserve their vital energy and re-establish their health condition[4,7].

In the context of Obstetric Nursing, the theory reinforces the importance of providing holistic care in delivery and childbirth, as well as the influences that nurses can exert on the physical, psychological and social environments to rescue the physiological process of delivery and to reduce unnecessary interventions. In this way, nurses contribute to making the birth process less traumatic[1,4,7]. In addition, for the elaboration of the survey, the DNAPN recommendations, which establish practices in delivery and birth care, were also used in order to humanize care and fill obstetric gaps[8].

In a previous search in the literature, it was observed that there are no validated instruments that assess nurses' KAP on delivery and childbirth care. However, in the exercise of practice, nurses

who work in delivery and childbirth care need to be evaluated through validated instruments, so that there is a greater degree of reliability. From this assessment, contributions can be made to the recognition of the strengths and weaknesses of obstetric care and, consequently, guide the planning and implementation of actions to improve quality of care.

In view of these considerations, the study aims at validating the KAP survey on Nursing assistance during delivery and childbirth based on the concepts of Florence Nightingale's Environmental Theory and on the DNAPN recommendations.

METHOD

This is a descriptive and methodological study for the creation and validation of a research instrument of the KAP survey type, which consists of a set of questions aimed at identifying how a given population knows, thinks and acts[9]. The following stages were adopted to develop this research:

1) Bibliographic research – This stage was the basis for the elaboration of the KAP survey through a careful reading and systematization of the concepts of Florence Nightingale's Environmental Theory and the DNAPN recommendations. Based on this, a list was elaborated with the recommendations discussed in the guideline and the concepts related to the environments (physical, psychological and social) addressed in the theory. It is noted that the broad view of these references provided the theoretical elaboration of the survey, favoring the interrelationship between the concepts.

2) Construction of the theoretical model – After the bibliographic research, a logical theoretical model was built based on the correlation between the concepts of the Environmental Theory, the DNAPN recommendations and the dimensions of the KAP survey (Chart 1). In order to define the dimensions to be investigated, it was indispensable to understand the real meaning of each word and adapt it to the obstetric context.

3) Development of the KAP Survey – It was carried out in accordance with the DNAPN recommendations and the concepts of the Environmental Theory adapted for the care of the parturient woman. It is noteworthy that the survey was created in such a way that, for each theme, there was a corresponding item in the three dimensions investigated.

The Survey items had answer options arranged in a Likert-type scale. Thus, in relation to knowledge, the respondent judged the item regarding agreement: "I totally agree"; "I partially agree"; "I neither agree nor disagree"; "I partially disagree"; and "I totally disagree". Regarding attitude and practice, the respondents judged the item according to what they propose/are willing to do regarding the action proposed in the statement and how often they perform this action ("always", "almost always", "sometimes", "rarely" or "never") (Supplementary Material).

4) Sample calculation and selection criteria – For sample calculation of the content and face validation, the formula proposed by Lopes, Silva and Araújo[10] for validation studies was used; $N = Z\alpha^2 . P (1-P)/e^2$. N corresponds to sample size; $Z\alpha$ corresponds to the 95% confidence level (1.96); P corresponds to the proportion of evaluators (85%); and e corresponds to the acceptable proportional difference (15%). Consequently, the sample totaled 22 evaluators in each validation.

The search for and selection of experts took place nationwide through the *Lattes* Platform of the National Council for Scientific and Technological Development (CNPq) and through snowball sampling, in which one specialist indicated another.

The following inclusion criteria were used: 1) Having research studies on women's health and/or obstetrics and/or humanized care during childbirth and/or KAP survey; 2) Being a nurse with at least a master's degree in women's health and/or obstetrics and/or related areas; 3) Having at least two years of experience in care or teaching in the area of women's health and/or obstetrics. The experts who did not submit the data collection instrument in a timely manner (within a ten-day period established for returning the instruments) were excluded.

Chart 1 – Logical-Theoretical model of the Knowledge, Attitude and Practice survey to assess Nursing assistance during delivery and childbirth. Recife, PE, Brazil, 2018.

Environments and elements of the Environmental Theory		Item Set – DNAPN*	Survey Dimensions
Physical Environment	Eating and drinking Hygiene Noises Light Furniture Temperature Privacy Delivery devices	• Delivery assistance place; • Professional assisting delivery; • General care during labor; • Assistance in the first delivery period;	Knowledge about humanized care during delivery and childbirth based on the good practices
Psychological Environment	Emotions Feelings Bond with the professional assisting delivery Preparation for delivery	• Assistance in the second delivery period; • Assistance in the third delivery period;	Attitude about humanized assistance to delivery and childbirth based on the good practices
Social Environment	Social network Professional assisting delivery Birth as a social event Social roles	• Diet during labor; • Asepsis measures for vaginal delivery; • Assessment of fetal well-being; • Maternal care immediately after delivery; • Pain management during labor; • Analgesia; • Information and communication; • Physical and emotional support; • Assistance to the newborn.	Practice about humanized assistance to delivery and childbirth based on the good practices

*DNAPN: *Diretrizes Nacionais de Assistência ao Parto Normal.*

5) Data collection – It was carried out between July and December 2017 and occurred in two stages: in content validation and face validation, with the KAP survey being evaluated and judged by the evaluators in the respective stages. The Free and Informed Consent Form (FICF) was sent through the *Google Forms* platform, in which the participants signed the form electronically, in order to consent participation in the research. After returning the consent form, the instrument for characterizing the profile of the evaluators, the survey and the adapted forms were also sent through the platform, based on the model proposed by Nascimento and Teixeira[11], with the following items to be evaluated: objective; structure and presentation; relevance (for content validation) and purpose; organization; writing style; appearance and motivation (for face validation).

6) Data analysis – The data were analyzed using the *Statistical Package for the Social Science* (SPSS) software, version 20.0. The Content Validity Index (CVI) was used, which allows evaluating each item individually and then the instrument as a whole, in order to ensure the validity and relevance of the items through the proportion of agreement. It is noted that the items that received a CVI score

equal to or greater than 0.8 were kept in the survey, since a consensus of 80% among the evaluators was adopted as adequate. It is added that, in content validation, the Binomial test was used, where a p-value≥0.05 indicated the agreement among the evaluators for a given item.

It is noteworthy that the participants' suggestions were considered in each validation stage. Thus, based on the statistical analysis and the evaluators' suggestions, the first version of the survey was modified, proceeding to face validation.

This study met the recommendations set forth in Resolution 466/12 of the National Health Council (*Conselho Nacional de Saúde*, CNS).

RESULTS

In the content validation stage, 12 evaluators (54.5%) had a PhDs degree, nine (41.0%) had a master's degree and one (4.5%) was a post-PhD intern. The mean time of professional training was 16.3 years, while the care and teaching experience time in Nursing in women's health was 11.4 and 10.5 years, respectively. In addition to that, 17 evaluators had already participated in validation research studies in the area of women's health/obstetrics (77.3%), 19 had publications in the area of women's health/obstetrics (86.3%) and three had publications in the area of validation and/or KAP survey (13.7%).

In face validation, 18 evaluators (81.8%) had a specialist degree in the area of obstetric nursing/women's health, three (13.7%) had master's degree and one (4.5%) was a PhD. The mean training time was 7.6 years. Regarding delivery and childbirth care in a hospital environment, the mean was 5.2 years, and the mean experience in home delivery was 2.7 years. It is noteworthy that six (27.3%) had already participated in validation research studies on women's health/obstetrics and one (4.5%) had participated in validation research studies on the KAP survey.

In addition, content validation showed that the agreement among the evaluators was satisfactory, with an I-CVI value > 0.80 and a p-value > 0.05 for all items evaluated. The mean I-CVI value for the KAP survey was 0.976. As for the S-CVI, which indicates the proportion of evaluators in agreement with the adequacy and pertinence of the survey as a whole, a value of 0.972 was obtained (Table 1).

Table 1 – Agreement of the items for validation of the survey content according to the evaluators. Recife, PE, Brazil, 2018. (n=22)

Items evaluated	Agreement			p*	P†	I-CVI‡
	Yes	No	Null			
1. Objective						
1.1 The contents are coherent with the objective of the KAP survey.	22	0	0	1.00	1.00	1.00
1.2 The objective is clear and concise.	19	1	0	0.66	0.96	0.86
1.3 The content facilitates critical thinking about Nursing care.	22	0	0	1.00	1.00	1.00
1.4 The information presented is scientifically correct.	22	0	0	1.00	1.00	1.00
1.5 There is a logical sequence in the content proposed.	22	0	0	1.00	1.00	1.00
1.6 The information presented (quantity and depth level) can successfully cover the content on humanized care in delivery and childbirth and Florence Ningtinhgale's Environmental Theory.	22	0	0	1.00	1.00	1.00

Table 1 – Cont.

Items evaluated	Agreement			p*	P†	I-CVI‡
	Yes	**No**	**Null**			
1.7 The information/content presented are important to assess the quality of the assistance provided.	22	0	0	1.00	1.00	1.00
1.8 It will be able to promote a reflection by the professionals regarding their knowledge status, their willingness to carry out actions and their care practice.	22	0	0	1.00	1.00	1.00
2. Structure and Presentation						
2.1 It is adequate/coherent for its application.	22	0	0	1.00	1.00	1.00
2.2 The language used is easy to understand.	22	0	0	1.00	1.00	1.00
2.3 It has an appealing design that keeps the respondent attentive.	20	1	1	0.86	0.98	0.91
2.4 The questions are presented in a structured and objective manner.	21	1	0	0.97	0.99	0.95
2.5 The form of presentation contributes to the nurses' reflection on care permeated by the good practices in delivery and childbirth care.	21	1	0	0.97	0.99	0.95
2.6 It supports the inference/achievement of the desired results.	22	0	0	1.00	1.00	1.00
2.7 It provides sufficient data for the assessment of humanization in Nursing assistance during delivery and childbirth.	22	0	0	1.00	1.00	1.00
2.8 The pages or sections are well organized.	22	0	0	1.00	1.00	1.00
3. Relevance						
3.1 It allows for the reflection about knowledge, attitudes and practice.	22	0	0	1.00	1.00	1.00
3.2 It portrays aspects that must be reinforced in the assistance provided.	22	0	0	1.00	1.00	1.00
3.3 Once validated, it will allow for the transfer and generalization of the concepts for all childbirth care scenarios.	19	1	2	0.66	0.96	0.86
3.4 Once validated, it will enable the construction of knowledge by the professionals about humanization in Nursing assistance during delivery and childbirth.	21	0	1	0.97	0.99	0.95
3.5 Once validated, it can be used by health professionals/or educators and managers.	21	0	1	0.97	0.99	0.95
S-CVI§						0.972

*p-value; †Binomial Test; ‡Item-Level Content Validity Index; §Scale-Level Content Validity Index.

It is noteworthy that the changes suggested by the evaluators were accepted and referred mainly to semantic issues, which made the survey clearer. No new questions were suggested.

It was also pointed out by the evaluators that the number of questions to be answered in the survey makes it tiring/exhausting and may lead to risk of bias in the answers. However, only two questions and their correspondents in each dimension of the KAP survey were excluded, as suggested, and, therefore, removed from the final version.

As for the generalization of the survey to all childbirth care scenarios, a careful review of the questions dealing with care facilities was suggested, in order to reinforce the concepts related to home delivery care, so that, in this way, the elements of humanization and the theory used can be generalized to all scenarios.

Another suggestion refers to better articulation between the DNAPN and the Nursing theory. Despite this, when analyzed statistically, the items that assessed this aspect and the statistical values were presented in a satisfactory manner.

In relation to face validation, the instrument was also validated, presenting I-CVI values > 0.80 in all the items. The mean I-CVI value was 0.987, and the S-CVI value was 0.989 (Table 2).

Table 2 – Agreement of the items for validation of the survey appearance according to the nurses. Recife, PE, Brazil, 2018. (n=22)

Items evaluated	Agreement			I-CVI
	Yes	No	Null	
1. Objective				
1.1 The survey meets the objectives proposed.	22	0	0	1.00
1.2 It assists in the assessment about humanization in Nursing assistance to delivery and childbirth.	21	1	0	0.95
1.3 It is adequate to be applied.	22	0	0	1.00
2. General organization, presentation, coherence and format				
2.1 The title is appealing and indicates the survey content.	21	1	0	1.00
2.2 The size of the title and of the content in the topics is adequate.	22	0	0	1.00
2.3 The topics follow a logical sequence.	22	0	0	1.00
2.4 There is coherence between the survey objectives and content.	22	0	0	1.00
3. Linguistics, comprehension and writing style				
3.1 The writing style is clear and objective.	22	0	0	1.00
3.2 The text is interesting.	22	0	0	1.00
3.3 The vocabulary is easy to understand.	22	0	0	1.00
3.4 The theme of each section is associated with the corresponding text.	22	0	0	1.00
4. Degree of significance of the survey				
4.1 The pages or sections seem to be organized.	22	0	0	1.00
4.2 The colors are appealing and they ease understanding.	22	0	0	1.00

Table 2 – Cont.

Items evaluated	Agreement			I-CVI
	Yes	**No**	**Null**	
4.3 The answer options are coherent.	22	0	0	1.00
4.4 It can be answered without difficulty.	21	1	0	0.95
5. Ability of the material to cause impact, motivation and interest				
5.1 It is suitable for the profile of the nurses who provide direct care to women during labor, delivery and childbirth.	22	0	0	1.00
5.2 The contents are presented in a logical manner.	22	0	0	1.00
5.3 Interaction with nurses is invited by the texts, suggesting actions.	22	0	0	1.00
5.4 It invites/instigates behavior and attitude changes during care.	21	1	0	0.95
5.5 It proposes a reflection by nurses on the humanization of delivery and childbirth care.	20	1	1	0.90
S-CVI				0.989

Key: ‡Item-Level Content Validity Index; §Scale-Level Content Validity Index.

It is noted that the evaluators presented the following comments on the survey: "Well organized, follows a logical sequence", "Well-constructed text, clear and objective writing", "Congratulations, very good", "I'm interested in knowing the product of this research". They also described that the application of the survey will make it possible to investigate the KAP of nurses working in delivery and childbirth care, in addition to pointing out which aspects can be improved among these professionals.

In addition, two professionals suggested organizing it in different colors for each dimension. This change aims at signaling the transition in the set of questions and content to be investigated, which makes the survey more appealing.

Items 5.4 (It invites/instigates behavior and attitude changes during care) and 5.5 (It proposes a reflection by nurses on the humanization of delivery and childbirth care) obtained lower scores due to the evaluators' questioning about the proposed survey leading to behavioral change.

Regarding the writing and semantics of the questions, reformulation of those dealing with the ambience was suggested, such as, for example, "penumbra" in the delivery room as an important element of this context. In this validation stage, only one question was recommended for exclusion, for being similar to another question in terms of content and for being equivalent.

Finally, it was suggested to show at the end of the survey the references used for its construction as a way to contribute to professional training, in case they are interested in exploring the care protocols, the WHO recommendations and the concepts of the Nursing theory.

The last version of the instrument consisted in 205 questions, distributed across the KAP's dimensions. Thus, the results of this study reveal that, in the global assessment of content validation, when analyzing the categories of objective, structure, presentation and relevance, it was observed that 90% of the items reached I-CVI values, and that the binomial test reached values greater than 0.95. In face validation, 100% of the items analyzed regarding objective, organization, writing style, appearance and motivation obtained I-CVI values above 0.90.

DISCUSSION

The use of the logical-theoretical model for the construction of the KAP survey, based on the articulation between Florence Nightingale's Environmental Theory and the DNAPN, allowed for the careful elaboration of each question of the survey, with a view to evaluating Nursing assistance during delivery and childbirth.

A study aimed at investigating the use of the theoretical-logical model in Nursing research studies incorporated as an important stage of the research systematic theoretical procedures, or an in-depth literature review, to establish the construct to be addressed and how it should be discussed in its instruments, in order to portray the professional practice[12].

Another study described that content validity is a judgment process consisting of two distinct stages: elaboration and validation. Elaboration must be grounded on standardized and systematic methods, such as theoretical-logical models, with the objective of improving the quality of the measuring instruments[13].

Also in relation to the elaboration of instruments, with regard to the use of a Nursing theory, a study on the epistemology of care recognizes that the profession is a science under construction, which must establish the relationships between the epistemology of care and the theoretical, philosophical and historical bases of the profession. From this point of view, nurses must use the theoretical foundation to understand today's challenges, critically contextualize, (re)develop a new know-how and implement a scientific, investigative, consistent and recognized practice in the health sciences[14].

Thus, it is inferred that the inter-subjectivity between the theoretical-philosophical bases of Nursing care elucidated in Florence Nightingale's Environmental Theory and in the good obstetric practices discussed in the DNAPN was observed in the construction of the KAP survey.

It is noteworthy that there is a relationship between the Environmental Theory, the DNAPN and Nursing care, which were used in the KAP survey built and validated in this study, as the parturient woman is influenced by elements of the physical, psychological and social environments, which must be balanced in Nursing care, in order to favor good practices and humanization in the assistance to deliveries and births, as the recommended by the DNAPN[7–8].

The balance between these environments aims at encouraging deliveries free from unnecessary interventions. In this way, obstetric nurses make the birth process less traumatic by balancing factors described in the Environmental Theory, such as reduced noise, light, reduced invasive procedures and presence of attentive company, which are influenced by the KAP of these professionals regarding Nursing assistance in delivery and childbirth care[1,7,9].

In this context, the KAP survey enables the understanding about what the health professionals know/understand (Knowledge), think/feel (Attitude) and how they act/behave (Practice), with the purpose of identifying the needs of the services and, subsequently, implementing appropriate and adapted interventions[9]. Thus, the survey proposed in this study sought to correlate the dimensions of the nurses' KAP and their application in daily delivery and childbirth care.

The dimensions of the survey were reorganized, as suggested by the evaluators, to show the respondent the approach to the aspects investigated in the theory (physical, psychological and social environments) and to Nursing care. This change made the survey robust, clear and objective in the way of explaining which questions refer to each type of environment and, consequently, which elements of obstetric care are related to them.

Its contributions were fundamental to provide reliable results, as well as to obtain a critical and efficient opinion of the validated material. Attention in the selection of evaluators regarding their degrees, academic production and clinical experience in the area is a fundamental condition for exercising the role of evaluator in content validation[15].

Regarding the analysis of the objective of the KAP survey, the literature emphasizes that instruments validated by the target population are important allies for identifying knowledge gaps and difficulties encountered in the practice. In this way, they are sensitive tools for the effective assessment of behaviors, able to propose the implementation of educational actions aimed at solving problems that are directly associated with the quality of the assistance provided[16].

It is noteworthy that the Likert-type scale offered the advantage of being easy to apply, agility in the act of responding, low complexity in the decision-making/choice process, ability to express the respondent's opinion and low possibility of errors. The use of this scale made it possible to enrich the analysis and calculation of covariance between variables, minimizing fluctuations in data normality[17].

This type of scale is the most suitable for translating health-related attitudes, behaviors and domains into quantitative data. In addition, it is perceived that the organization of items on a Likert scale provides a list of proposals or questions that estimate the agreement degree that best reflects the respondent's opinion[17].

Statistically, values above 0.90 are considered the gold standard for validating an instrument, and a value equal to or greater than 0.80 is considered desirable in this type of methodology.[10] Therefore, the content and face validations of the KAP survey met the objectives proposed, as they attested that the construct, the representativeness of the questions and the significance degree of the instrument are coherent to assess Nursing assistance during delivery and childbirth.

After analyzing the answers and suggestions of all the evaluators, it was noticed that most of the suggestions referred mainly to the substitution of terms or words. Despite these substitutions, no question was compromised as to its statement or context to which it refers.

In relation to the number of questions in the survey, the literature points out that, although some instruments are considered extensive and tiring, the ease of answering them is related to the respondent's ability to identify the relationships between theory and professional practice. It is therefore inferred that the ability to answer the KAP survey proposed lies in the skill to identify the concepts and practices aimed at delivery and childbirth care and in the judgment of the answer options[18].

With regard to the relevance and applicability of the survey to the nurses' clinical practice, current studies on the validation of instruments and scales consider them to be important characteristics to be evaluated. Thus, it is necessary to analyze the relevance or representativeness of the questions, with a view to achieving the objectives proposed by the instrument to be validated[13,17].

As for generalizability, the literature has expanded the discussion on humanization, which permeates several aspects of this theme, emphasizing that the opportunity for home deliveries is a way to provide humanized care during delivery and childbirth[18].

It is noted that obstetric care must provide the necessary conditions for the woman, baby and family to be welcomed with dignity and safety. In this sense, regardless of the place where the birth occurs, nurses must have skills and abilities regarding the obstetric courses of action to be adopted during labor and delivery, in order to consider the evidence, good practices and humanization[3].

According to the Environmental Theory, Nursing care in hospital births can be interpreted as a way to promote a calm and peaceful setting for women, closer to the home environment. It is noteworthy that the scene of home birth also appears as a redefinition of the process of delivery and childbirth, as it goes against the precepts of the medicalization of life and the use of power by health professionals in relation to the female body[19].

The importance of the KAP survey having ambience-related terms, such as "penumbra", was noticeable, as it interferes with the physical and psychological environment. It is noteworthy that the literature points out that "penumbra" is a factor closely linked to issues of humanization and female empowerment in delivery[6].

This result corroborates a study that compared the emotional expressions of parturient women during the expulsion period in environments with regular and low lighting. The study concluded that the low-light environment promoted a physiological sequence of emotions, with fear being common in intense moments and surprise as a transitional emotion to anger. The latter was characterized as the trigger for the baby's expulsion and, finally, the feeling of joy with the child's arrival. The artificially-lit environment, on the other hand, promoted the most troubled appearance of the sequence of emotions[6].

In addition, penumbra creates an environment in which women feel less observed and, with their privacy preserved, it allows for greater concentration and respect on the part of the professional team, facilitating the parturition process. In reflections on the environment, Florence Nightingale emphasizes the environmental impact on the health restoration/maintenance process, in which light can be a factor of imbalance, interfering in the interrelationship between the physical, psychological and social environments[6,18].

As for the assessment of general organization, presentation, coherence, formatting, linguistics, comprehension, writing style and significance degree, the findings are in consonance with other studies that admit an agreement of at least 80% among the participants as a decision criterion on the relevance and/or acceptance of items[15]. Thus, validation studies attest to the clarity, understanding, relevance and linguistic adequacy of the items, which facilitates the subsequent application of the instrument, reducing misinterpretations among the interviewees[13].

Using the theory was essential, as the theoretical bases express that nurses must put their theoretical framework at the service of the needs and problems presented by the clients. To do so, they must use clinical observation to transform their practice in order to meet or correct them. The use of tools that stimulate knowledge acquisition supports an effective critical reflection on their attitudes and consequent changes in their clinical practice[18].

Among these tools, there is the proposal of programs for humanization during delivery and childbirth, which includes the search for changes in the professionals' conduct/attitude. These changes are closely related to knowledge acquisition and to the significant participation of managers in recognizing the importance of the nurses' role in delivery care[19–21].

The applicability of the KAP survey built and validated in this study is highlighted, which can be used by obstetric nurses in hospital settings, at homes or in Birth Centers (*Centros de Parto Normal*, CPNs) and in the habitual-risk or high-risk assistance provided to the parturient women, with the purpose of evaluating the nurses' KAP in relation to Nursing assistance during delivery and childbirth.

This study has some limitations, such as not checking the exploratory factor validity to verify the instrument's internal consistency and the adequate/satisfactory number of questions needed to measure the entire scope of the construct to be investigated.

The creation of the KAP survey contributes to the growth of Brazilian Nursing in the scientific environment and to a safer care practice. Therefore, it is indispensable to use valid health instruments, as they allow for the collection of reliable data that can support the reassessment and reformulation of the services.

CONCLUSION

It is concluded that the KAP survey on Nursing assistance during delivery and childbirth, based on the concepts of Florence Nightingale's Environmental Theory and on the DNAPN recommendations, was validated for content and appearance (CVIs of 0.976 and 0.987, respectively), having a satisfactory clarity index and an adequate validity index, which can be used to assess the nurses' KAP in relation to Nursing assistance during delivery and childbirth.

The survey built and validated from this research can be used by health professionals, educators and/or managers in order to assist in the conduction of new diagnostic evaluation studies that enable

improvements both in the services aimed at the care of women and newborns and in public policies that meet and reinforce the precepts of humanization. In addition, it will contribute to a safer practice in Obstetric Nursing care, as it will allow collecting reliable data that support the reassessment and reformulation of the obstetric services, as well as the direction of qualified care aimed at meeting the parturient woman's health needs.

It is noteworthy, therefore, the need to conduct new studies in order to carry out the exploratory factorial validation so that to verify the number of questions necessary to cover the entire scope of the construct to be investigated. Added to this, verification in pilot tests is suggested to estimate the response time and, in the future, include this information for the respondents in the presentation.

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NOTES

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CONFLICT OF INTERESTS
There are no conflicts of interest.

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SUPPLEMENTARY MATERIAL
The following online material is available for this article:
Knowledge, attitude and practice (kap) survey on humanization in the assistance provided during delivery and childbirth