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Elaboration and validation of an educational technology related to violence against women

Elaboração e validação de uma tecnologia educacional acerca da violência contra a mulher

Elaboración y validación de una tecnología educacional sobre violencia contra las mujeres

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ABSTRACT

Objective: To develop and validate an educational technology about violence against women. **Method:** A methodological study of content and appearance validation. For validation, 11 content specialists and technicians, 7 design specialists and 79 women participated in this study. Three instruments were used for data collection, one for each group of participants, and the data were analyzed for level of agreement and Content Validity Index. **Results:** The average agreement of the content specialists and technicians was 87%, the global Content Validity Index by the design specialists was 0.92 and the level of agreement of the positive responses by the target audience was 96.2%. **Conclusion and implications for practice:** The "Alertmeter" proved to be a valid educational technology to be used, as it promotes knowledge about the various manifestations of violence against women.

Keywords: Violence against Women; Educational Technology; Validation Studies; Health Education.

RESUMO

Objetivo: elaborar e validar tecnologia educacional acerca da violência contra a mulher. **Método:** estudo metodológico de validação de conteúdo e aparência. Para a validação, participaram deste estudo 11 especialistas de conteúdo e técnicos, 7 especialistas de *design* e 79 mulheres. Foram utilizados três instrumentos para a coleta de dados, um para cada grupo de participantes, e os dados foram analisados quanto ao nível de concordância e Índice de Validade de Conteúdo. **Resultados:** a média de concordância dos especialistas de conteúdo e técnicos foi de 87%, o Índice de Validade de Conteúdo global por parte dos especialistas de *design* foi de 0,92 e o nível de concordância das respostas positivas pelo público-alvo foi de 96,2%. **Conclusão e implicações para a prática:** o Alertômetro mostrou-se uma tecnologia educacional válida para ser utilizada, pois promove conhecimento acerca das diversas manifestações da violência contra a mulher.

Palavras-chave: Violência contra a Mulher; Tecnologia Educacional; Estudos de Validação; Educação em Saúde.

RESUMEN

Objetivo: desarrollar y validar tecnología educativa sobre la violencia contra la mujer. **Método:** estudio metodológico del contenido y validación de la apariencia. Para la validación, 11 especialistas y técnicos de contenido, 7 especialistas en diseño y 79 mujeres participaron en este estudio. Se utilizaron tres instrumentos para la recopilación de datos, uno para cada grupo de participantes, y los datos se analizaron para determinar el nivel de acuerdo y el Índice de validez del contenido. **Resultados:** el acuerdo promedio de los especialistas y técnicos de contenido fue del 87%, el Índice de validez de contenido global por parte de los especialistas en diseño fue de 0,92 y el nivel de acuerdo de las respuestas positivas por parte del público objetivo fue de 96,2%. **Conclusión e implicaciones para la práctica:** el "Alertómetro" demostró ser una tecnología educativa válida para ser utilizada, ya que promueve el conocimiento sobre las diversas manifestaciones de la violencia contra las mujeres.

Palabras clave: Violencia contra la Mujer; Tecnología Educativa; Estudios de Validación; Educación en Salud.

INTRODUCTION

Violence against women is associated with differences between the genders in a relationship, and the naturalization of these differences is the result of an imposed cultural and social construction, establishing relationships based on domination and violence.[1,2] For this reason, there is a need for the practice of health professionals to be guided by the objective of transforming values and hegemonically constructed customs, defended and accepted by society, contributing to denaturalization attitudes.[3]

Conforming the idea of the naturalization of violence against women, a study carried out in 49 countries showed that those with low and middle income had higher rates of social acceptance of violence.[4] In Thailand, 2,462 married women were interviewed about their experiences in relationships, with 1 out of 6 facing violence. They also reported that, in the last 12 months, psychological violence was the most common (60-68%), followed by sexual (62-63%) and physical (52-65%) violence.[5]

The health professional can act in situations like these when trying to reduce the cycle of violence, preventing simple cases from becoming more serious. For that, he must know the articulation of the support network and promote permanent health education actions, seeking clarification and building bonds with his community.[6]

During the professional practice, the use of instruments capable of identifying and leading to situations of violence facilitates the work of different health professionals, who have the opportunity to assist women who turn to services in search of help with immediate needs, perhaps connected to the conditions of violence suffered.[7]

The educational technologies can be used to support the teaching-learning process by presenting current information with clinical evidence. Thus, in the preparation of educational materials, the interdisciplinarity of different areas of knowledge that complement each other and make technology more attractive is considered important, using teaching pillars and scientific knowledge.

The four teaching pillars contribute to the construction of technologies with the objective of assisting in the holistic formation of the individual. "Learning to know" indicates interest, the awakening of intellectual curiosity, the formation of a critical sense; "Learning to do" shows the execution process and the collective work, based on interpersonal relationships; "Learning to live together" develops the perception of understanding the other, participating in understanding projects; and, finally, "Learning to be" presents the integral development of the person and independent and critical thinking.[8]

In this sense, the educational technology proposed in this study appears as an opportunity to reframe the educational actions regarding violence against women. When applied, it will provide a reflection of both the professional and of the woman as well, demystifying the false image that violence is only physical and recognized only when it leaves marks on the victim. It will also allow women the ability to analyze the acts committed by their partners and to reflect on the manifestations of violence that they have already committed or are about to commit.

When considering the aspects mentioned, the aim of this study was to develop and validate an educational technology about violence against women. Hence, the intention is to contribute to the prevention of violence against women, providing knowledge and assisting professionals in health education actions with the female public.

METHOD

This is a methodological study which consists of a research study related to investigations of methods for obtaining, organizing and analyzing data, describing in detail the elaboration and analysis of research instruments and techniques. This, in turn, aims to build an instrument that is reliable, accurate and usable, and which can be applied by other researchers.[9]

Initially, the phase of preparing the material was carried out, with an integrative review of the literature available on the subject. In the analysis phase, between the months of June and September 2018, such knowledge was used to build the theoretical content covered.

The following databases were used in the integrative literature review: Medical Literature Analysis and Retrieval System Online (MEDLINE), Latin American and Caribbean Health Sciences Literature (*Literatura Latino-Americana e do Caribe em Ciências da Saúde*, LILACS) and the Nursing Database (*Base de Dados de Enfermagem*, BDENF). The MesH descriptors used were *Women, Battered Women, Domestic Violence* and *Intimate Partner Violence* for the search on MEDLINE, and the controlled descriptors *Mulheres, Mulheres Agredidas, Violência contra a Mulher, Violência Doméstica* and *Violência por Parceiro Íntimo* for LILACS and BDENF, combined with the Boolean operators AND and OR.

Articles that listed the risk factors for violence against women published between 2013 and 2017 in English, Portuguese and Spanish were included, and informal case reports, book chapters, dissertations, theses, reports, news, editorials, non-scientific texts and articles without full text availability online were excluded. The search for the articles was carried out in the month of May 2018 and then, with the help of a graphic designer, the educational technology was developed using the *CorelDraw* 2017 program.

For validation, two groups of evaluators were selected, composed of both content specialists and technicians – who analyzed content, language, presentation, stimulation, motivation and cultural adequacy –, and by design experts to validate the appearance. This process took place during the months of June to August 2018.

For analysis of the Alertmeter, the survey of the eligibility of the participants for the role of content specialists and technicians and design experts was carried out through the Lattes Platform and by sampling the *snowball sampling* type. In it, the selected participant indicates or suggests other participants, a technique widely used when the population is composed of people with characteristics which are difficult to find.[10]

The selection was made as follows: after accessing the "Plataforma Lattes" website, in the "Lattes Curriculum" window, the "*Buscar currículo*" ("Search curriculum") option was chosen. In the advanced search tab by subject, the following keywords were used: "*Tecnologias Educativas*", "*Elaboração e Validação de Materiais Educativos*" and/or "*Violência Contra a Mulher*".

As a parameter for choosing professionals, the Judges classification system was established, which was proposed in a master's thesis in Fortaleza-CE and adapted by the authors of this study to the objectives proposed by this research. Those who obtained at least five points were selected, in line with previous validation studies,[11-13] according to scoring criteria.

The target audience was also consulted. In September 2018, a population of 227 women registered in the regional zones was obtained, those data were collected through the User Registration System of the Unified Health System (*Sistema de Cadastramento de Usuários do Sistema Único de Saúde*, CAD-SUS), in Teresina-PI. The sample size was defined by a specific mathematical formula, whose objective was to estimate the minimum size necessary for the development of specific statistical procedures, ensuring the reliability of the study.[14,15]

Simple random sampling was used with replacement. The North Region of the city was chosen for the research because it is the area with largest population, given that, in most cases, violence is greater in areas of high population density.

After performing the sample calculation, the count was of 79 participants. The inclusion criteria considered for this study were the following: being an adult woman, aged between 18 and 59 years old, and being in care in the Basic Health Units (BHUs). Those with some type of cognitive and/or mental disorder, self-reported or informed by a companion, were excluded.

Since this is an analysis using sample groups, it was considered necessary to use three instruments for data collection: the first aimed at content specialists and technicians, the second at design experts, and the third at the target audience.

For the content specialists and technicians, the Suitability Assessment of Materials (SAM) was used, which assesses the difficulty and convenience of the educational materials, analyzing the agreement and relevance of each item (1 = inadequate, 2 = partially adequate and 3 = adequate).[16] The instrument intended for the design experts was similar in structure, also counting on a *Likert* type scale, but with the following scoring: 1 = strongly disagree, 2 = partially disagree, 3 = agree, and 4 = strongly agree, regarding appearance validation.

For the target audience, however, an assessment questionnaire adapted[16] to the participant was used, which best suited the language of the interviewees. It was divided into three parts: the first, with socio-demographic and economic aspects; the second, with items about the domains of organization, writing style, appearance and motivation; and the third with an open space for the participants to express their opinions.

The professional information about the specialists and the sociodemographic data of the target audience were processed in the Statistical Package for the Social Sciences (SPSS) software.

The analysis was descriptive, using absolute (n) and relative (%) frequencies, when it was a qualitative variable. The quantitative variables were analyzed using position (mean) and variability (standard deviation) statistics.

For the analysis of the results of the content specialists and technicians, the percentage of scores obtained was calculated by means of the total sum of the marked values divided by the total of the scores contained in the instrument, with a value equal to or greater than 60% being considered as a suitability indicator.[17]

Regarding the analysis of the results of the design experts, the logic used to calculate was the Content Validity Index (CVI), seen as adequate to the objectives. The item score was calculated by adding the agreement of the items marked with "3" or "4", divided by the total number of answers. The instrument score was performed by averaging the sum of the CVI of each item divided by the number of items in the instrument.[16] The cut-off point used for the CVI was 0.78.[18]

The data collection instrument for the target audience was adapted and built on a scale, in order to obtain a more objective measure of the analysis of each item. Regarding the analysis, a minimum level of agreement of 75% of the positive answers about the analysis of the material was adopted.[13]

The study was approved by the Research Ethics Committee, under Opinion Numbers 3,023,137 and 3,023,147, and met all the ethical precepts for research involving human beings.

RESULTS

In the elaboration stage of the educational technology, the integrative literature review directed the theoretical content to be addressed, listing the various manifestations of violence against women. Three ways of presenting violence were evidenced, namely: sexual, psychological, and physical. The related statements were extracted from the 17 articles included in the review.

As for the methodology, qualitative, quantitative, quali-quantitative research, and cross-sectional and cohort studies were selected. Regarding the types of violence, 15 articles showed physical violence, 12 psychological violence, and 9 sexual violence.

The first version of the technology was designed by the authors and built with the help of a graphic designer. As the professional produced the illustrations, they were sent for approval or possible changes by the researchers, until the first version of the educational technology was achieved.

The first version submitted for validation by the content specialists and technicians and the design was called "*Violentômetro*" ("Violencemeter") and had the shape of a graduated thermometer. Each degree of the thermometer represented a manifestation of a type of violence, giving the idea of a progression of violence as the thermometer "heated up". That is, the temperature of the thermometer was higher when the violence took on more serious proportions. For example: the lowest temperature, i.e., 1°C, represented erotic jokes, and the highest temperature, 60°C, represented femicide (death).

The first 15 degrees of the thermometer represented sexual violence, identified by the yellow color. The next level,

represented by the orange color, was related to psychological violence, divided into 25 degrees. The last level corresponded to physical violence, being represented by the red color, containing 20 degrees.

In the validation stage, 11 content specialists and technicians participated, with a mean age of 39 (±10) years old, and predominantly female (90.9%). As for their training, 81.8% were nurses, but there was also a dental surgeon and a lawyer specialized in violence against women. They had graduated more than 10 years ago, with a mean of 15 (±09) years. Regarding their degrees, masters and doctors were numerically equivalent, representing 45.4% each.

Based on the scores obtained, the educational technology was validated by the content specialists and technicians, using a global SAM score of 87.9%, as shown in Table 1.

Table 1. Validation of the content specialists and technicians regarding content, language, presentation, stimulation/motivation and cultural adequacy. Teresina, Piauí, 2018

Specialist	Score obtained	Score total possibility	%
E01	26	30	86.7
E02	28	30	93.3
E02	30	30	100
E04	26	30	86.7
E05	28	30	93.3
E06	28	30	93.3
E07	20	30	66.7
E08	26	30	86.7
E09	24	30	80
E10	30	30	100
E11	24	30	80
GLOBAL SAM			87.9

*SAM: Suitability Assessment of Materials

The appearance validation phase comprised seven design experts. The characterization of the sample revealed young participants, between 27 and 44 years old, with a mean of 35 (±6.1), graduated 10 (±6.9) years ago, predominantly male (85.7%). and working in Teresina-PI (85.7%).

Only one design expert did not agree with items 1, 2 and 3. On the other hand, in items 4 and 5, all of them agreed that the guidelines are in strategic locations and that the technology contributed to changing behaviors and attitudes, as shown in Table 2.

The CVI of each item and the general instrument were validated, since the lowest value attributed to an item was 0.86, and the highest, 1.0. The overall CVI was 0.92.

After the contributions of the specialists who analyzed the educational technology, some adjustments were deemed necessary so that it could in fact be used with the female audience, with the primary goal of alerting about violence against women. Among them was the name of the technology, which went from "Violencemeter" to "Alertmeter". The final version received this name because it warns women about the manifestations of violence, without graduating by type and level of severity. Graduating became unfeasible, since violence is very subjective, as shown in Figure 1.

After the adjustments, the validation process was completed based on the contributions of the target audience. In this stage, 79 women participated, with a prevalence of the age group from 30 to 49 years old (53.16%), mixed race (69.62%) and single (50.63%). Regarding family income, 61.5% reported that the sum of their incomes is less than the minimum wage, and, regarding religion, 69.62% mentioned being Catholics.

Subsequently, the participants answered the data collection instrument. Of the four domains assessed, the writing style obtained the greatest number of positive answers: 97.47% of the women thought that the sentences are easy to understand, and 98.73% that the written content is clear, revealing the suitability of the Alertmeter to the target audience. The level of agreement for the positive answers ranged from 92.41% to 98.73%, resulting in a mean of 96.20%, a result which is sufficient for the population to validate the Alertmeter, as shown in Table 3.

Table 2. Analysis by the design experts regarding the characterization of the appearance. Teresina, Piauí, 2018

| Characteristics of the appearance	Disagree	Agree	Totally agree	CVI*
The phrases organized in color levels are appropriate to attract the attention of the target audience.	01	02	04	0.86
It is clear and easy to understand.	01	01	05	0.86
The colors and shapes are suitable for the type of material.	01	04	02	0.86
The guidelines are in strategic places for reflection.	-	05	02	1.0
It contributed to the change in behavior and attitudes of the target audience.	-	03	04	1.0
GLOBAL CVI				0.92

*Content Validity Index
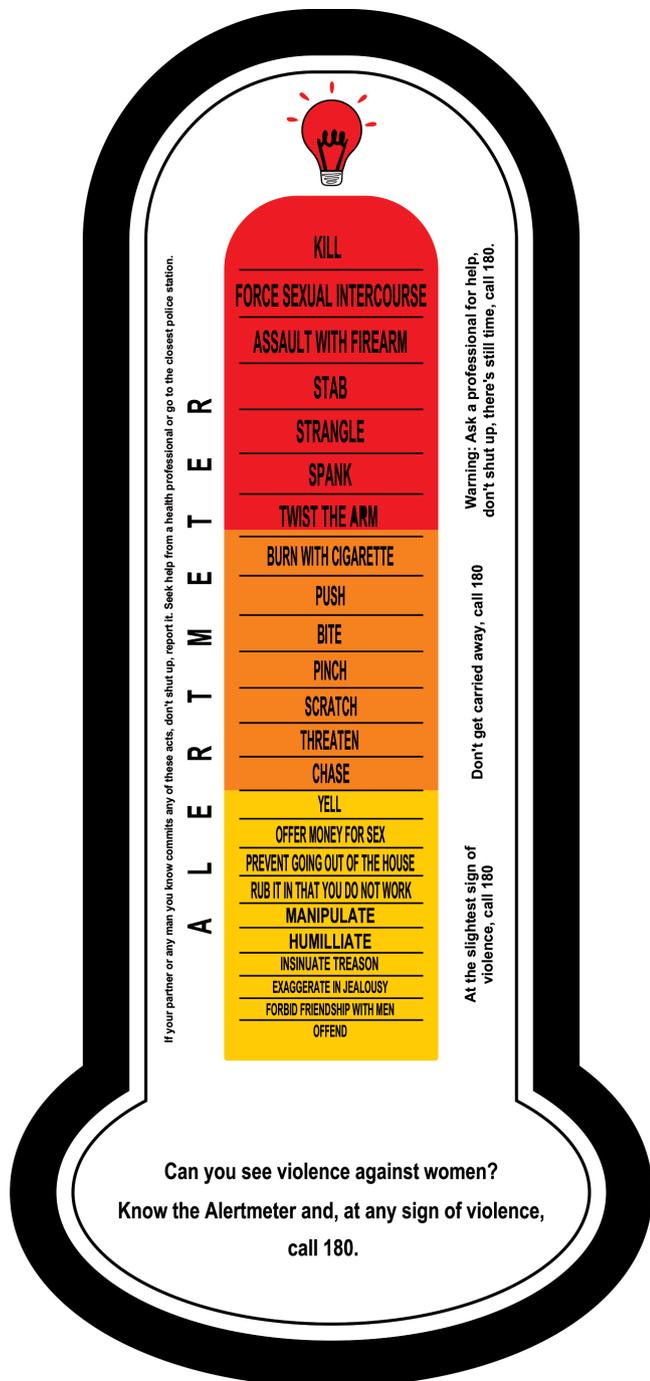
Figure 1. Final version of the Alertmeter. Teresina, Piauí, 2018.

DISCUSSION

In general, the answers of the content specialists and technicians were in agreement. From the answers obtained in the SAM score, the mean was 87.9%, with an agreement level of the responses considered sufficiently adequate for validation.

Other methodological studies also analyzed their materials with sufficiently adequate indexes: the educational booklet for the prevention of metabolic syndrome in adolescents obtained a mean SAM of 91.7%; the booklet for the prevention of childhood diarrhea obtained 88.7% from the content specialists and 90.1% from the technical specialists.[16,19]

A study carried out in a university polyclinic, involving physicians, nurses and interns, with a view to validating an Italian version of the questionnaire produced by the World Health Organization about violence in the workplace, also obtained satisfactory results, good reliability and internal consistency, showing to be a useful tool in the evaluation and prevention of the occurrence of violence in the work environment.[20]

The validation by the design experts also attained higher indexes related to the cutoff point used, thus being classified as adequate.

With a rate relatively higher than 0.92, several researchers developed an advanced life support distance course in Natal-RN, attaining a global CVI of 0.94.[20] On the other hand, in a survey conducted in Fortaleza, in which a booklet for the prevention of vertical HIV transmission was analyzed, a global CVI of 0.87 was attained.[21]

Analyzing the information collected, similar data on validation of educational technologies with substantial statistical indexes were observed. For example, the validation and reliability of a scale applied in Turkey is cited to assess the satisfaction of nursing students regarding their clinical education, which had a variance of 0.93-0.99 on the alpha *Cronbach*'s scale, in which six factors were identified, with a total variance of 64%, considered valid and reliable.[22]

On the other hand, a study on adapting the Pamela Reed Self-transcendence Scale in Spain was validated according to the global Content Validity Coefficient (CVC) of 0.92, considered to be of positive viability.[23]

It is worth mentioning that, although validated, both referred scales differ from the Alertmeter in terms of the presentation mechanism. The Alertmeter, being a dynamic and self-explanatory material, becomes considerably accepted when using warm colors to capture the attention of women, having a simple and accessible language for both the professional and the target audience, and bringing an alert to the various manifestations of violence against women, facilitating the educational practices related to the theme.

It is essential to emphasize that, although the Alertmeter was analyzed and considered valid by the specialists, they registered their opinions and suggestions for modification, in order to guarantee the best quality of the educational technology used.

During the analysis procedure of the Alertmeter, the adjustments made, necessary in validation studies,[24] enabled changes that respected the particularities of the target audience, so that the mechanism was well understood.

After the suggestions of five specialists, some words of the material were modified, in order to make its language more colloquial. Regarding the use of language, this is considered a factor that can significantly interfere in the understanding of the

Table 3. Assessment of the target audience regarding the organization, writing style, appearance and motivation of the Alertmeter. Teresina, Piauí, Brazil, 2018

Variables	Option 1		Option 2		Option 3	
	n	%	n	%	n	%
Organization						
Di the Alertmeter called your attention? (1.Yes/2.No/3.Partially)	75	94.94	03	3.80	01	1.27
Is the content sequence adequate? (1.Yes/2.No/3.Partially)	73	92.41	02	2.53	04	5.06
Is the structure of the Alertmeter adequate? (1.Yes/2.No/3.Partially)	77	97.47	01	1.27	01	1.27
Writing style						
The phrases are: (1.Easy to understand/2.Difficult to understand/3.Partially)	77	97.47	02	2.53	-	-
The written content is: (1.Clear/2.Confusing/3.Partially)	78	98.73	01	1.27	-	-
Appearance						
The colors of the Alertmeter are: (1.Adequate/2.Inadequate/3.Partially)	78	98.73	-	-	01	1.27
Do the illustrations help to facilitate understanding? (1.Yes/2.No/3.Partially)	76	96.20	01	1.27	02	2.53
Motivation						
Do you think that any woman who that reads this Alertmeter will understand what it is about? (1.Yes/2.No/3.Partially)	75	94.94	02	2.53	02	2.53
Did you feel motivated to read the Alertmeter until the end? (1.Yes/2.No/3.Partially)	73	92.41	03	3.80	03	3.80
Does the educational material address issues necessary for women to perceive signs of violence? (1.Yes/2.No/3.Partially)	76	96.20	01	1.27	02	2.53
Did the Alertmeter suggest you to act or think about violence against women? (1.Yes/2.No/3.Partially)	78	98.73	-	-	01	1.27

message that the professional wants to convey to the patient. When not used in a simple way, there is a possibility of not achieving the goal of the material.[25]

Two specialists emphasized the need to review the distribution of the types of violence by severity – stressing that this process represents something very subjective –, where you have different ideas of what violence would be for each woman. Such observation was considered very relevant, having then been met in the adapted material.

In addition, the contact of the agency to which to turn in cases of violence against women was added to the Alertmeter, as some experts indicated it was necessary. The joint action of the care and support network for women victims of violence represents the agile identification and continuity of care for this woman, aiming at comprehensive and resolving care.[26]

Thus, the Alertmeter developed and validated in the study proved to be an educational tool, given the objective of alerting about violence against women, considered by the analysis of the target audience as an important material for awareness and dissemination of knowledge. The participation of specialists and representatives of the target audience could increase the credibility and acceptance of educational practices.[27]

The promotion of educational activities becomes essential to provide guidance on violence against women, so that it is possible to prevent or minimize the chance of gender violence, and the learning objects are important tools to guide and systematize such actions.[9,28]

Health educational materials, when proven scientifically validated and also used appropriately, i.e., inserted and integrated in health care planning, are allies for the construction of health knowledge.[28,29]

Once correct concepts and conducts in relation to the prevention of violence against women are properly prepared and transmitted to the population, a positive return on the epidemiological indicators is obtained in time. Therefore, addressing the task of building and validating contents that make up educational materials becomes relevant in a society that strives to reduce its levels of violence, whose risk factors are related to social and cultural behaviors.[29]

In Ethiopia, researchers adapted an assessment tool for violence against women in a community in the northwest of the country, with 1,269 women, obtaining satisfactory results, whose values were higher than the recommended minimum regarding the reliability and consistency of the adapted scale.[30]

Analyzing the answers of the female audience, it was possible to observe that the scores of the responses had a mean level of agreement of 96.20%. However, it is necessary to emphasize the motivation domain, whose answers were the least satisfactory. That is, most women felt motivated to read the Alertmeter until the end; however, a significant number did not feel motivated or felt it only in part.

The expression of negative answers from the participants may be related to the moment when the questionnaire was applied, since most of the interviewees waited for their consultations at the BHUs or stated that they needed to return as soon as possible to their homes to start their daily activities. As much as the researchers clarified that their participation would not require much time, they were notorious for showing anxiety and a desire to return to the waiting line or to their homes.

Despite this, it is necessary to highlight that the target audience evaluated the Alertmeter positively, considering it interesting, explanatory and important. Therefore, the Alertmeter was presented as a valid educational technology in conducting discussions on the issue of violence against women, which allows them to take the information presented, the so-called "alerts" and the knowledge, in order to fight violence in their daily lives.

It should be noted that the use of the Alertmeter by the health professionals will be able to mediate their dialog with women, seeking a joint production of knowledge about violence against women. In addition, this technology is considered a material that contributes to expand the possibilities of the professionals working in Primary Care, with a view to an educational intervention that contributes to the actions of the professionals in their daily care of women, enabling a reflection on training and the development of best practices for women's health.

In this context, Primary Care constitutes a space that favors the approximation between professionals and women in situations of violence, being an environment for the implementation of the National Policy of Comprehensive Care for Women's Health, in addition to biologicist actions.

CONCLUSION AND IMPLICATIONS FOR THE PRACTICE

The prepared Alertmeter proved to be a valid educational technology to be used with the female audience, as it promotes knowledge about the various manifestations of violence against women. With regard to its practical applicability, the Alertmeter may, in the daily practice of educational practices, become an accessible technology for both professionals and women, with information to be shared in a dynamic and explanatory way about the manifestations of violence against women. Consequently, it will collaborate with the process of confronting violence.

The Alertmeter was validated by content specialists and technicians regarding content, language, presentation, stimulation/motivation and cultural adequacy, obtaining a global SAM score of 87.9%. As for the validation of the design experts, with regard to its appearance, it resulted in an overall CVI of 0.92. With regard to the validation made by the target audience, there was an agreement of 96.20% of positive answers.

Although the Alertmeter was validated by the specialists and by the target audience, the development of the study presented as a methodological limitation the scarce scientific framework on the validation of educational materials in health, especially with regard to the theme of violence against women, in order to better support the analysis of this research. Such a limitation does not invalidate its results, but it does indicate the need for new methodological studies to be developed and published in the scientific community.

It is considered that the use of the Alertmeter may be a product of reflection with regard to the educational process in health carried out in Primary Care, contributing to changes in the conceptions and practices of the professionals on the preparation and validation of educational materials on violence against women, and assuming that the material will promote female empowerment regarding the manifestations of violence.

It is ratified that the considerations listed here are directed not only to the scope of health, but also to the professionals who work in public security and justice, since multidisciplinary and inter-sectoral involvement is necessary in order to confront violence against women holistically.

AUTHORS' CONTRIBUTIONS

Design of the review study. Data acquisition and analysis, and interpretation of the results. Writing and critical review of the manuscript. Approval of the final version of the article. Responsibility for all aspects of the content and the integrity of the published article. Elayne Kelly Sepedro Sousa. Erica Jorgiana dos Santos de Morais. Camila Aparecida Pinheiro Landim Almeida. Data analysis and interpretation of the results. Writing and critical review of the manuscript. Approval of the final version of the article. Responsibility for all aspects of the content and the integrity of the published article. Fernanda Cláudia Miranda Amorim. Adélia Dalva da Silva Oliveira. Kayo Henrique Jardel Feitosa Sousa.

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