Esc Anna Nery 2024;28:e20230156

ORIGINAL ARTICLE | ARTIGO ORIGINAL

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Construction of an assessment scale for the work environment in primary health care[a]

Construção de uma escala de avaliação do ambiente de trabalho na atenção primária à saúde

Construcción de una escala de evaluación del ambiente laboral en la atención primaria de salud

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Abstract

Objective: To describe the stages of constructing a scale to evaluate the work environment in Primary Health Care. **Method:** methodological study with five stages: establishment of the conceptual structure; construction of questions and response scale; structuring; content validity with experts and semantic analysis with health professionals. **Results:** construction of the conceptual structure with literature review, the analysis of researchers, experts and health professionals finalized the scale with 36 questions. The work environment is influenced by working conditions, administration and management issues, worker health, workloads, appreciation and motivation, violence and strategies for a healthy work environment. The Content Validity Index (CVI) and Percentage of agreement were performed, with values of 0.96 (CVI) and 96% agreement, respectively. **Conclusions and implications for practice:** the scale was developed and showed agreement, according to the content validity test by experts and health professionals. Thus, the scale is capable of being used for other validation process and can contribute to the practice of health researchers in assessing the work environment.

Keywords: Workplace; Primary Health Care; Methods; Questionnaires; Occupational Health.

Resumo

Objetivo: Descrever as etapas da construção de uma escala para avaliar o ambiente de trabalho na Atenção Primária à Saúde (APS). **Método:** Estudo metodológico com cinco etapas: estabelecimento da estrutura conceitual; construção das questões e da escala de respostas; estruturação; validade do conteúdo com especialistas; e análise semântica com profissionais de saúde. **Resultados:** A construção da estrutura conceitual com revisão de literatura e a análise dos pesquisadores, especialistas e profissionais de saúde, finalizou a escala com 36 questões. O ambiente de trabalho é influenciado por condições de trabalho, questões de administração e gestão, saúde do trabalhador, cargas de trabalho, valorização e motivação, violência e estratégias para um ambiente de trabalho saudável. Foi realizado o Índice de Validade de Conteúdo (IVC) e Porcentagem de Concordância, com valores de 0,96 (IVC) e 96% de concordância, respectivamente. **Conclusões e implicações para prática:** A escala foi elaborada e apresentou concordância, de acordo com o teste de validade de conteúdo, por especialistas e profissionais de saúde. Assim, a escala está apta a seguir para outros processos de validação e pode contribuir para a prática de pesquisadores das áreas de saúde na avaliação do ambiente de trabalho.

Palavras-chave: Ambiente de trabalho; Atenção Primária à Saúde; Estudo metodológico; Questionário; Saúde do trabalhador.

Resumen

Objetivo: Describir las etapas de la construcción de una escala para evaluar el clima laboral en la Atención Primaria de Salud (APS). **Método:** Estudio metodológico con cinco etapas: establecimiento de la estructura conceptual; construcción de preguntas y escala de respuestas; estructuración; validez de contenido con expertos; y análisis semántico con profesionales de la salud. **Resultados:** La construcción de la estructura conceptual con revisión de la literatura, el análisis de investigadores, expertos y profesionales de la salud finalizó la escala con 36 preguntas. El ambiente de trabajo está influenciado por las condiciones de trabajo, cuestiones de administración y gestión, salud de los trabajadores, cargas de trabajo, aprecio y motivación, violencia y estrategias para un ambiente de trabajo saludable. Se realizó el Índice de Validez de Contenido (IVC) y Porcentaje de Concordancia, con valores de 0,96 (IVC) y 96% de Concordancia, respectivamente. **Conclusiones e implicaciones para la práctica:** La escala fue desarrollada y mostró concordancia, según la prueba de validez de contenido realizada por expertos y profesionales de la salud. Así, la escala está lista para pasar por otros procesos de validación y puede contribuir a la práctica de los investigadores de salud en la evaluación del clima laboral.

Palabras clave: Ambiente de trabajo; Atención Primaria de Salud; Métodos; Cuestionarios; Salud Laboral.

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Submitted on 10/30/2023.
Accepted on 01/30/2024.

DOI:https://doi.org/10.1590/2177-9465-EAN-2023-0156en

INTRODUCTION

Primary Health Care (PHC) is an essential component of health systems around the world and in Brazil it represents one of the most significant advances in the Unified Health System (SUS). Referred to as Primary Care (PC) in Brazil, PHC is considered the main "gateway" to the SUS, responsible for providing accessible, comprehensive and coordinated health services to local populations. PHC is part of the Health Care Network (HCN), influencing local management and the ordering of other services.[1]

The evolution of PHC occurred through the Family Health Strategy (FHS), which fostered a change in the care model and made it possible to increase the supply of actions and services, producing positive results for the population's health.[2] Legal policy changes that have had repercussions, especially in terms of funding, have had a negative impact on the process of expanding and consolidating primary care, especially in relation to the configuration and organization of work in the teams. There are also deleterious effects on services, universality and equity in the SUS, significantly affecting the quality and effectiveness of care, as well as the working environment.[3]

Understanding the factors that influence the working environment in primary care and their impact on the health and performance of professionals is extremely important for the continuity and strengthening of the SUS.[4] The working environment in primary care can be affected by a number of factors, including insufficient resources, lack of administrative support, excessive workload, lack of autonomy, inadequate physical environment, difficult interpersonal relationships, lack of training and professional development opportunities, among others.[5] These factors can have a significant impact on the satisfaction and performance of health professionals.[6] For example, a stressful and disorganized work environment can lead to high levels of professional burnout and job dissatisfaction, which can negatively affect the quality of health care provided.[5,6]

In addition, insufficient staffing, overburdened teams and a lack of continuing education opportunities hinder professional development. The ability of these professionals to keep up with changes in clinical practice and offer up-to-date, evidence-based health services is also hampered by these factors.[7]

The World Health Organization (WHO) has listed some actions that it has linked to the issue of workers' health, such as the promotion of initiatives aimed at promoting healthy working environments, which are applicable to different countries, scenarios and cultures.[8] In this concept, healthy work environments are expressed in collaborative and sustainable scenarios for the promotion and protection of health, also taking into account the needs of four groups: physical work environment; psychosocial work environment; resources for personal health; involvement between the institution and the community to achieve better levels of individual and collective health.[8]

Based on studies into healthy working environments, which led to the construction of an analytical tool[9]. The concept of Healthy Work Environment is proposed by the group of researchers with characteristics that address the importance of considering the work environment as healthy and qualified, highlighting two dimensions: the subjective, which includes symbolic and ethical elements, and the objective, which encompasses the physical environment and the components of work practice. Workers' health is essential because it affects all aspects of the work environment. Therefore, considering a positive working environment involves taking into account both dimensions (objective and subjective).[9]

Using careful, internationally recognized conceptual and methodological models,[10] evaluative research in Brazil has boosted knowledge about Primary Care and the FHS, including approaches to the quality of health services.[11] Instruments for evaluating care or other aspects related to primary care were identified in the literature[12,13] including the work environment.[14] From the perspective of a healthy working environment, the KIT FAT Analytical Tool stands out. [9] and there is a clear need to produce validated and reliable instruments for evaluations in this area. This justifies the development of a scale to assess the working environment in Primary Care.

The aim of the study was to build a measurement scale to evaluate the work environment in Primary Health Care in Brazil, whose potential contribution is anchored in the production of information to support evaluation and planning processes that lead to improvements in services and the health of workers in their work environments. This article describes the method used to construct the scale, which has the potential to contribute to local co-management and planning processes, as well as to evaluation research.

METHODOLOGY

This is a methodological study, developing a scale according to the methodological steps proposed by DeVellis and Thorpe,[15] which are grouped into five stages:

1. Determining the purpose of the scale and establishing the conceptual framework.
2. Constructing a set of items and response scales.
3. Structuring the scale: defining the measurement format; revising the initial list of questions and adding validation questions (stages 3 and 4 of DeVellis and Thorpe).[15]
4. Content validation by a committee of experts (steps 5 and 6).
5. Semantic evaluation by a group of health professionals (step 7).

Each stage has different objectives and uses different methods.

Stage 1. Determining the purpose of the scale and establishing the conceptual structure

In order to develop the scale, which can assess the work environment in Primary Health Care (PHC), in addition to the WHO concept of healthy work environments, which considers

four sets: physical work environment; psychosocial environment; resources for personal health; involvement between institution and community; the results of a preliminary study were used to establish the conceptual structure, both from the body of literature already selected and analyzed, and from the elements (categories and subcategories) that made up an instrument for analyzing healthy work environments in PHC.[16]

The previous literature review was guided by the question "What concepts are integrated and what meanings are attributed to the construct of "healthy environments" in the health literature?". The search used the PUBMED, CINAHL, SciELO, SCOPUS, LILACS, BDENF and Embase databases, from 2010 to April 2019 (two consecutive searches), with the search terms: work environment; Primary Health Care, factor associated with the environment and workers' health. Partial results of the chosen categories were published.[9,16] The database was updated again in a third search, in June 2021, with the inclusion of 26 new studies, especially for this study.

The inclusion criteria for the publications defined for this research were: complete research articles, available for access, presenting an abstract for first analysis and focusing on the health work environment as the main subject, there were no language restrictions. Articles found in duplicate were only counted once in the database with the highest number of references. The articles were organized in Atlas.ti software (version 8.0) to extract the data, which will be discussed in the results.

As the previous instrument (KIT FAT)[9] was not a measurement scale, its conceptual structure was taken as the basis for the improvements and updates developed by updating the body of literature and new stages of the methodological study.

Stage 2. Construction of items and response scales

In line with the purpose of the scale, a large set of candidate items was generated at this stage for possible inclusion in the scale.[15] This confirmed that the purpose of the scale is to identify how healthy the working environment is in Primary Health Care and which aspects of this environment act positively or negatively on this result.

A preliminary list of items was drawn up to capture the complexity of the concept from different perspectives. The initial list of items was formed from the categories that made up a previous study (Work Environment Analysis Tool - KIT FAT)[9] to which new items derived from the literature were added. At this stage, the set of items was extensive, confirming that a certain redundancy between items should be considered a quality of the set.[15]

Stage 3. Structuring the scale (measurement format, revision and inclusion of new questions).

Steps 3 and 4[15] are grouped together in this description, since they take place in an articulated and simultaneous manner, including the selection and organization of items, the definition of the format of these items and the measurement, among various existing possibilities. The wording of the question sought to clearly capture the extent to which each aspect contributed to a healthy working environment in the respondent's perception. The measurement format adopted was a Likert scale, initially proposed with 7 points and finalized with 5 points.

The initial version of the set of items was analyzed and revised by two other researchers, which led to improvements in the text, content, logical order, the inclusion of more items, as well as the definition of 12 questions aimed at characterizing the socio-demographic profile and guidelines for respondents. In addition, the subsequent content validation stage by a committee of experts also produced adjustments and the inclusion of questions, which demonstrates the integration cycles of steps 3 and 4.

Stage 4. Validity of content by expert committee

The purpose of validating the content of the scale is to determine whether the questions are theoretically appropriate, whether they are in line with the objective of the scale, whether the content is appropriate for the respondents, whether the measurement format corresponds to what they want to measure, whether the structure of the scale is appropriate and whether the content is representative and, based on this validation, whether any of the questions should be replaced or excluded from the structure of the scale. This theoretical analysis of the questions was carried out by a committee of experts.

The inclusion criteria for experts for this stage of the study were: to have a master's degree or PhD in the area of health, with a dissertation in the fields of Primary Health Care/Collective Health/Worker Health/Health Work; or with a dissertation in instrument validation studies and to have published research in the fields of Primary Health Care/Collective Health/Worker Health/Health Work or in the production and validation of technologies/scales in the last 2 years. Based on the curriculum lattes, as well as for convenience, researchers with expertise in the subject of the Work Environment, Workers' Health and Primary Care were selected. Twenty participants were invited via email to make up the expert committee. The ICF, the list of questions and the evaluation document were also sent by e-mail.

The Content Validity Index (CVI) was used to quantitatively assess the agreement of the members of the expert committee.[17] This index measures the proportion or percentage of experts who agree on certain aspects of the scale and its questions, indicating the scale's measurement capacity.[18]

After the feedback, the calculation was made from the sum of the "3" and "4" answers from each expert on each item of the questionnaire, divided by the total number of answers. The formula for evaluating each item individually is:

$$CVI = \frac{Number\ of\ \text{“3”}\ or\ \text{“4”}\ answers}{Total\ number\ of\ responses} \quad (16)$$

Questions that receive a score of "1" or "2" need to be evaluated further and revised or eliminated. To be considered validated, we use a minimum agreement parameter of 0.80 and preferably higher than 0.90.[17]

Stage 5. Semantic evaluation by a group of health professionals

The scale must be applied to a sample of individuals representing the population for which it is intended, in order to refine it.[18] It is also important for researchers to be sensitive to the responses and concerns of the participants who represent the target audience,[15] as they may know better than the researchers about the topic.

A consultation was held with a group of health professionals to check that the scale is understandable and really can provide results that are free from misinterpretation or that do not represent that working environment, before it is applied definitively. This stage can also be called a semantic evaluation[10], because it checks that the questions in the scale are understandable and clear to the members of the target population, eliminating questions that are ambiguous, incomprehensible, contain vague terms, double questions, jargon or value judgments.[19]

To form the target group, we invited 19 professionals who work in Primary Health Care and are involved in the management of the health institution, i.e. professionals responsible for the team, nurses who manage care, health unit coordinators or professionals appointed by managers.

The criteria used to form the group of professionals were: Higher education professionals who work in Primary Care (PC), who may or may not work in the management of PC services and who have worked in PC for at least one year.

The material was sent via e-mail, with information on the study proposal and its objectives, instructions, the Informed Consent Form (ICF) and the deadline for returning the evaluation instrument. Of the 19 professionals who received the invitation via email and Whatsapp messaging app, 13 answered the evaluation instrument. The professionals were instructed to answer the scale first and then the evaluation tool. The instrument presented the group of professionals with a dichotomous scale with the following options: Clear and Unclear, to evaluate each item. In addition to the dichotomous options, there was a space for comments on the scale's questions and open questions for professionals to give their opinions on the scale's title, general structure, number of questions, answer format, understanding of the questions, presentation and suggestions for improvements and adjustments.

To evaluate the quantitative answers, the agreement rate can be used, which is obtained by calculating the percentage of each item.[20] This is done using the following formula:

$$\frac{\%\ agreement\ =\ number\ of\ participants\ who\ agreed\ x\ 100}{total\ number\ of\ participants} \quad (13)$$

This study was approved by the Research Ethics Committee with Human of the Federal University of Santa Catarina (UFSC), under opinion number 5.149.063.

RESULTS

The results of each stage of this methodological structure will be presented below, highlighting the results obtained in each one, according to Figure 1 (summary) and detailed description.

Stage 1: The conceptual framework was established based on the original concept of Healthy Work Environment (HWA) proposed by the WHO, 8 of 167 codes drawn up through the analysis, supported by Atlas.ti software, of 507 articles obtained in 3 cycles of literature review on the subject of the scale. The 167 initial codes underwent an in-depth analysis and produced 79 revised codes.

The codes were grouped into seven categories about the working environment: working conditions, administration and management, workers' health, workloads, appreciation and motivation, violence and strategies for a healthy working environment.

Table 1 shows the seven categories, divided by article and the frequency of codes.

After constructing the categories and their explicit codes, the conceptual structure of work environments in Primary Health Care was formed. The conceptual framework was also the basis for the development of another analytical tool, called KIT FAT (Tool for analyzing work environments in Primary Health Care[9]), which is part of the macro-project of this group of researchers.

Stage 2 and 3: In summary, the list of questions for the scale was drawn up using the following resources: the conceptual structure, the elements of the KIT FAT instrument (Tool for Analyzing Work Environments in Primary Health Care) and the experience of the group of researchers. The first version contained 75 items, which were transformed into 45 questions.

Among the techniques used to formulate response scales, the most common are those of direct estimation, and in this study we opted for the Likert-type scale, as it offers a level of sensitivity to the variation in responses and initially suggested seven points: 0 (Never); 1 (Almost never); 2 (Sometimes); 3 (Regularly); 4 (Often); 5 (Almost always); 6 (Always). The questions are presented as statements about the work environment at the present time, indicating how often the worker identifies that situation/perception.

After drafting the questions and selecting the response format, the content was evaluated in two rounds by two more researchers from the team to review the set of questions prepared. This was organized in two stages: the first stage, reading the instrument separately, transformed 75 items into 45 questions. In a second stage, using the Brainstorm technique, the number was reduced to 36 questions. At this stage, progress was also made in structuring and organizing the scale and we were also able to name it. After this discussion, the scale went from 7 to 5 measurement points: 0 (never); 1 (rarely); 2 (sometimes); 3 (often); 4 (always).

The next stage, defined in the sequence as 4, was the verification of content validity by a group of expert researchers on the subject.

The profile of the experts was of researchers with a master's degree (04 - 25%) or PhD (12 - 75%) in the field of nursing or public health and all had published research in the last 2 years in the fields of Primary Health Care/Worker's Health and/or in the production and validation of health technologies/instruments.

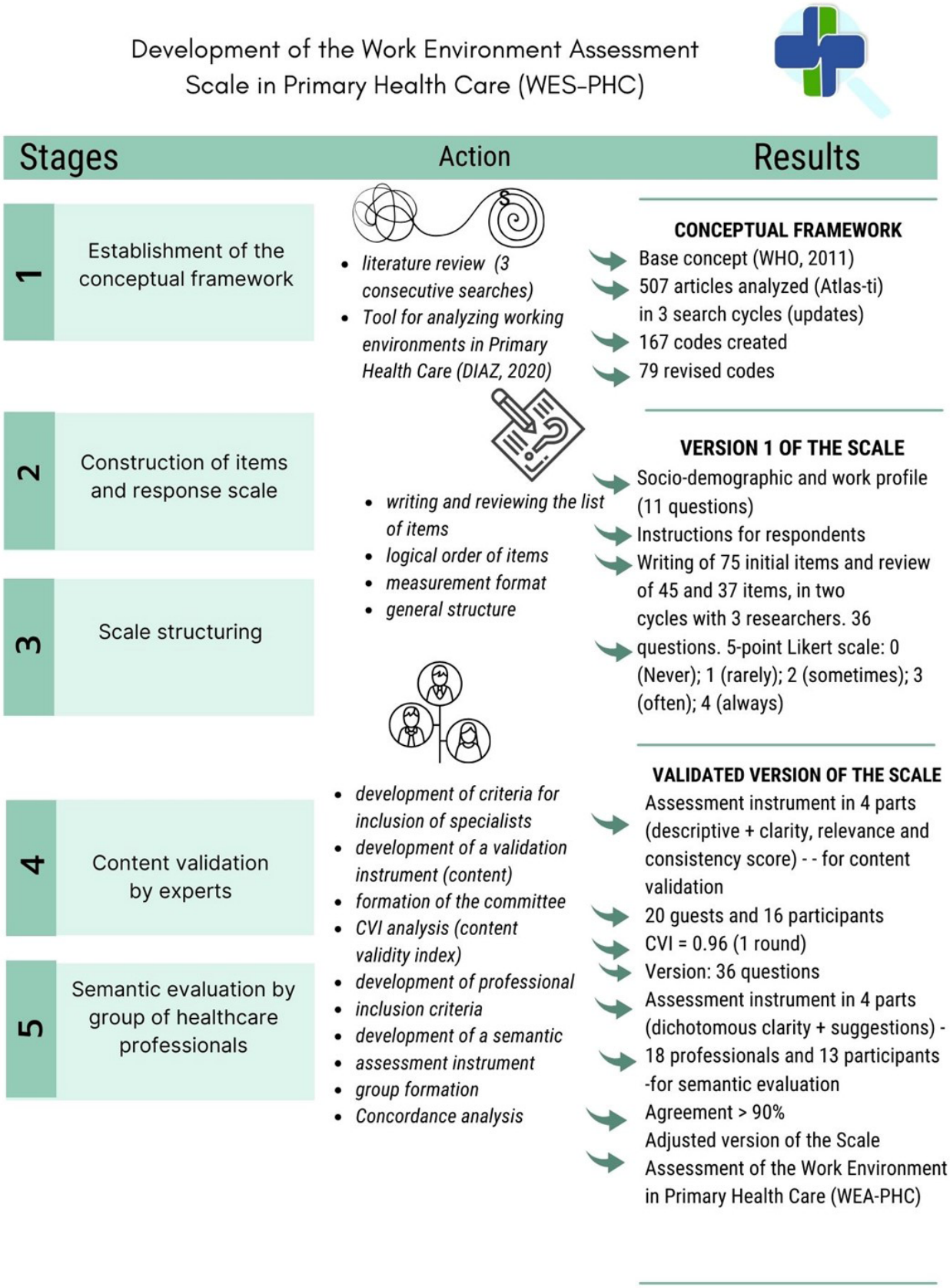

Figure 1. Development of the scale for evaluating the Work Environment in Primary Health Care.
Source: made by the authors.

Table 1. Organization of categories, filtered by articles and frequency of codes.

Categories	Articles	Initial codes	Revised codes	%
Working conditions	317	59	**41**	51.8
Administration and management	89	26	**14**	17.7
Workers' health	36	13	**2**	2.5
Workload	95	19	**6**	7.5
Appreciation and motivation	72	20	**9**	11.4
Violence	57	14	**3**	3.7
Strategies for a healthy working environment.	59	16	**4**	5.4
Total	**507 (articles codified)**	**167**	**79**	**100**

Source: Prepared by the authors according to the bibliographic period from 2010 to 2019.

The specialists were mostly from the south and southeast of Brazil (Rio Grande do Sul, Santa Catarina, Parana, Minas Gerais) and one researcher from Portugal, who was carrying out some research on the subject of the work environment in the hospital area. This stage involved the participation of 16 experts.

The experts carried out a technical analysis and the evaluation instrument was made up of 4 parts: 1- Socio-demographic and work profile; 2- Instructions to scale respondents; 3- Scale for evaluating the work environment in PHC; 4- Instructions on the general evaluation of the scale (Scale title; Text format; Scale score).

Parts 1, 2 and 4 were descriptive assessments of the clarity and relevance of the information. As for part 3, which dealt with the scale, the evaluation consisted of classifying the level of clarity, relevance and consistency of each item on the scale, marking the respective column with the number 1, 2, 3 or 4, according to the following:[17] 1 - Not clear/ Not relevant/ Not consistent. 2 - Not very clear/ Not very relevant/ Not very consistent. 3 - Clear, but needs minor adjustment/ Relevant, but needs minor change/ Consistent, but needs minor change. 4 - Very clear/ Very relevant/ Very consistent.

In the guidance, for answers 1 or 2, suggestions for change were requested in the Comments/suggestions column. At the end of the evaluation instrument, there was still a space for the expert to assess the scale's conformity with the research objective and language, as well as a space for general suggestions.

A análise pelos especialistas foi realizada de cada item individualmente e os documentos devolvidos pelos especialistas e suas propostas de modificações foram avaliadas e revisadas pelos pesquisadores principais.

The experts' Content Validity Index (CVI) for the scale was 0.96, and it did not require a new round of validation. Of the descriptive suggestions made by the expert committee, one question was coupled with another due to its similarity and another question was separated into two. Subsequently, the 36-question scale containing the suggestions made by the committee was handed back to each member. The experts reviewed their evaluation criteria and so the content validity process was completed and the optimization version of the scale was obtained. At this stage, the name of the scale was also adjusted and the acronym added to the name: Primary Health Care Work Environment Assessment Scale (WES-PHC).

Stage 5: The final stage of the construction and validation process, identified as semantic evaluation, was carried out with a group of health professionals. This stage was carried out with 13 individuals from the target population. These professionals were chosen for convenience. Contact was made with 8 professionals who were close to the main researcher, who referred the other 10 professionals. Of these 18 professionals, 13 returned with the evaluation material.

The profile of these professionals was that they were nurses (8), doctors (4) and dentists (1); 9 had graduated from a public institution; they had been working in primary care for an average of 9 years, all were from Santa Catarina (southern Brazil), 8 professionals held management positions at the time of the evaluation.

The evaluation tool for this stage was sent by e-mail, with all the guidelines for the evaluation process.[20] The purpose of this stage is to identify the clarity of the questions for the target population, so the evaluation consists of scoring whether or not the clarity criterion is met (dichotomous evaluation) for: ease of reading, understanding the questions, form of presentation and suggestions for improvement. Guidance is given to assess the wording of the questions. In other words, whether these questions are written in such a way that the concept is understandable and whether they adequately express what is expected to be measured.[15]

Once the evaluation questionnaire had been completed by the professionals, the proposals for improvements were analyzed and then the percentage of agreement tests were carried out.

This rate is interpreted as meaning that a result greater than or equal to 90% agreement means that the domains are adequate.

The overall result was 96%. Of the 36 questions, only 2 had descriptive suggestions for wording adjustments (question 9, replacing the term "coherent" with "are in agreement" with the objectives of the PHC, and question 14, including an explanation of mechanical loads). And so, as there were no significant alterations with a change impact on the question, it wasn't necessary to submit it for evaluation by the members of the expert committee again. Once this stage was completed, the scale was ready for the validation phase of its assessed psychometric properties.[18]

DISCUSSION

The use of measurement instruments has made important contributions to the organization and evaluation of services, the formulation of policies and responses to specific demands. To this end, methodological studies on construction, cultural adaptation and validation have been increasingly valued and are applied to a wide variety of topics, such as the assessment of health literacy[21], the range of problems in contemporary society that affect the health of populations and groups[22,23] or health workers[24,25] (such as anxiety, depression, burnout), emotional impacts such as fear[26] and analysis of mental health interventions developed in health crises[27].

Assessing the quality of the services provided and identifying areas for improvement, including the working environment, is a way of contributing to the planning of health institutions. Considering the importance of PHC for the Brazilian health system, the WES-PHC scale allows managers and health professionals to have a broader view of the needs and demands of patients and health staff, as well as the physical and organizational conditions of the workplace.

The proposed WES-PHC Scale consists of a total of 36 items and is based on the healthy work environment model proposed by the World Health Organization[8] and therefore has the potential to provide analyses of the work environment in a participatory way with health professionals, which means not only contributing to an environment that is favorable for practice, but moving towards a healthy work environment, involving important aspects found in its conceptual structure.

The conceptual structure of the work environment allowed us to understand the breadth of this object for health workers. The categories that make up the work environment in PHC are related to working conditions, management, workers' health, workloads, appreciation and motivation, violence and strategies for a healthy work environment.[9] The elements that make up these categories can generate illness and stress and are constantly associated with the context of this level of care, the political management of the health work process and subjective experiences at work.[16]Studies show that the results of healthcare institutions involve the performance of workers, who are influenced by their health and the organization of the institution.[28] With an approach to work focused on promoting quality of life and healthy workspaces [29,30] is associated with greater job satisfaction, fewer psychosocial risks at work, and consequently better employee performance and customer satisfaction.[31] Risk factors for health and quality of life at work must be identified and eliminated, or when it is not possible to eliminate them, structures and practices must be implemented that can minimize their impact.[32,33]

In the case of Primary Care, a specific scale can help assess the quality of the working environment and identify areas that need to be improved to ensure a more efficient, quality workspace and more satisfied and valued professionals. For example, the assessment can include aspects such as the physical environment, equipment, human resources, organizational policies and processes, access to health services, among others.[34] The scale can be used by health managers, researchers, workers and services that use co-management or participatory management in order to promote interventions to improve work environments and build healthier spaces.

The scale has an objective approach to the work environment and provides an opportunity to analyze it from the worker's point of view, which is why it makes reference to the possibilities of intervening in the work environment based on points that can facilitate and hinder a healthy environment. The scale corroborates the Ministry of Health's recommendation[35] that PHC is motivated by democratic and participatory management practices. In this sense, the WES-PHC scale can be an analytical tool to fill the gap in the literature that reveals a range of difficulties in carrying out practices with participatory characteristics, pointing to the lack of support for workers and the triggering of major difficulties encountered in the work environment.[9,36]

The process of constructing and validating the content with experts and then with a sample of health professionals are important steps and are used in studies to develop scales,[34,37] because they bring security, since the scale was evaluated by people who were involved in the process and have experience, in this case in primary care.

The process of constructing the scale followed the guidelines proposed by DeVellis and Thorpe[15] and content validation is part of the process. There are other methodologies for content validation, such as the Delphi study to achieve content validity. They are different means, but with the involvement of researchers and a common consensus between them.[38] In this consensus, content validation remains part of the process, referred to as content validity evidence.

Scales arose from the need for measurement mechanisms that reflect the construct as a whole, enabling comparison between studies and application in different realities.[39] DeVellis and Thorpe[15] emphasize that when developing a scale, researchers must take the essential precautions of reviewing the literature in order to identify and base the initial questions to make up the scale, consulting with experts on the subject of study in order to verify possible inclusions, exclusions or modifications to questions.

The constructed scale, with its content validated, must move on to the stage of validating its measurement properties, which can identify potential improvements and refinements. The evaluation of the questions is, according to DeVellis and Thorpe[15] in many ways, the core of the process of developing a scale and a condition for the next steps, through future applications in a variety of scenarios.

In addition, the use of a scale in the health area can contribute to the production of scientific evidence on the working environment in primary care. With data collected systematically and objectively, it is possible to carry out statistical analyses and produce studies that help to better understand the working environment in primary care, its impact on workers' health and the quality of the services provided. The results of this type of use can foster processes of co-creation of public health interventions, which makes solutions more centered on the needs of those involved, improving governance and participation.[40]

CONCLUSIONS AND IMPLICATIONS FOR PRACTICE

After carrying out the methodological study to develop the work environment scale, we can conclude that the scale was developed based on an extensive literature review, as well as a rigorous content validation process.

The purpose of this study was to present the construction of the scale, which includes part of its validation, and other forms of validation of the scale will be presented in other studies. The limitations of this study include the sample of health professionals who evaluated the study, as the sample was by convenience and from a single Brazilian state, so it does not represent all regions of Brazil. It should also be pointed out that the applicability of the scale has not yet been assessed after it was developed. As such, there is no consensus on how it will perform.

Proposals for the work process or future research could include using the scale in studies to assess the relationship between the work environment and workers' well-being. In addition, the scale should be applied and psychometric tests carried out for further validation.

The development of the work environment scale is an important step towards understanding the impact of the work environment on workers' health and well-being. Using this measure can help identify problem areas and make informed decisions about changes to the work environment, with a view to improving workers' quality of life and increasing the productivity and efficiency of organizations.

FUNDING

This study was carried out with the support of the National Council for Scientific and Technological Development (CNPq), in the form of a doctoral scholarship awarded to Sabrina Blasius Faust, from October 2021 to October 2023.

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Interpretation of results. Sabrina Blasius Faust. Flávia Regina Souza Ramos. Laura Cavalcanti de Farias Brehmer.

Writing and critical revision of the manuscript. Sabrina Blasius Faust. Flávia Regina Souza Ramos. Laura Cavalcanti de Farias Brehmer.

Approval of the final version of the article. Sabrina Blasius Faust. Flávia Regina Souza Ramos. Laura Cavalcanti de Farias Brehmer.

Responsibility for all aspects of the content and integrity of the published article. Sabrina Blasius Faust.

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[a] Article extracted from the doctoral thesis "Escala de avaliação do ambiente de trabalho na Atenção Primária à Saúde: construção e evidências de validade". Author: Sabrina Blasius Faust. Supervisor: Flávia Regina Souza Ramos. Programa de Pós-Graduação em Enfermagem da Universidade Federal de Santa Catarina, 2023.