



# Elaboration and Content Validity of an instrument on the activities of Community Health Workers

*Elaboração e Validação de Conteúdo de um instrumento sobre as atividades dos Agentes Comunitários de Saúde*

*Elaboración y Validación de Contenido de un instrumento sobre las actividades de los Agentes Comunitarios de Salud*

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## ABSTRACT

**Objective:** to develop and validate the content and appearance of an instrument to identify activities performed by community health workers in Family Health Strategy. **Method:** this is a methodological study composed of three stages: the first was the elaboration of the instrument based on a literature review, the second consisted of content validity by ten expert judges, and the third by apparent validity by the target population. For analysis, the content validity index was calculated. **Results:** Initially, the instrument consisted of 45 items arranged in ten dimensions. The experts analyzed and suggested modification of terms and addition and dismemberment of items. All suggestions were accepted, and the final version of the instrument consisted of 60 items. The content validity index was  $\geq 0.90$  for all items. The instrument covered the activities recommended by ministerial regulations and activities that are outside the scope of action, but which are present in the practice of the community health workers. **Conclusion and implications for practice:** The instrument presented satisfactory validity and reflected the reality of the community health workers, and its items are composed of the wide range of activities developed by these professionals.

**Keywords:** Community Health Workers; Family Health Strategy; Primary Health Care; Professional Competence; Validity Study.

## RESUMO

**Objetivo:** elaborar e conduzir a validação de conteúdo e de aparência de um instrumento para identificação das atividades desempenhadas pelos agentes comunitários de saúde na Estratégia Saúde da Família. **Método:** trata-se de um estudo metodológico composto por três etapas: a primeira foi a elaboração do instrumento a partir da revisão de literatura; a segunda foi constituída pela validação de conteúdo por 10 juízes *experts*; e a terceira pela validação aparente pela população-alvo. Para a análise, calculou-se o Índice de Validade de Conteúdo. **Resultados:** inicialmente, o instrumento foi composto por 45 itens dispostos em 10 dimensões. Os especialistas analisaram e sugeriram a modificação de termos e o acréscimo e o desmembramento de itens. Todas as sugestões foram acolhidas e a versão final do instrumento foi composta por 60 itens. O Índice de Validade de Conteúdo foi  $\geq 0,90$  para todos os itens. O instrumento abrangeu as atividades preconizadas pelas normativas ministeriais e pelas atribuições que fogem do escopo de atuação, mas que estão presentes na prática dos profissionais. **Conclusão e implicações para a prática:** o instrumento apresentou validade satisfatória e refletiu a realidade do trabalho dos agentes comunitários de saúde, sendo seus itens compostos pela ampla gama de atividades desenvolvidas por esses profissionais.

**Palavras-chave:** Agente Comunitário de Saúde; Atenção Primária à Saúde; Competência Profissional; Estratégia Saúde da Família; Estudo de Validação.

## RESUMEN

**Objetivo:** desarrollar y realizar la validación de contenido y la apariencia de un instrumento para la identificación de las actividades realizadas por los agentes comunitarios de salud en la Estrategia de Salud de la Familia. **Método:** se trata de un estudio metodológico compuesto por tres etapas: la primera fue la elaboración del instrumento, a partir de una revisión bibliográfica; la segunda consistió en la validación de contenido por 10 jueces *expertos* y la tercera en validación aparente por parte de la población objetivo. Para el análisis se calculó el Índice de Validez de Contenido. **Resultados:** Inicialmente, el instrumento constaba de 45 ítems, ordenados en diez dimensiones. Los expertos analizaron y sugirieron la modificación de los términos y la adición y desmembración de elementos. Todas las sugerencias fueron aceptadas y la versión final del instrumento constó de 60 ítems. El Índice de Validez de Contenido fue  $\geq 0,90$  para todos los ítems. El instrumento abarcó actividades recomendadas por normas ministeriales y actividades que están fuera del ámbito de actuación, pero que están presentes en la práctica profesional. **Conclusión e implicaciones para la práctica:** El instrumento presentó validez satisfactoria y refleja la realidad del trabajo de los agentes comunitarios de salud. Sus ítems están compuestos por la amplia gama de actividades desarrolladas por estos profesionales.

**Palabras clave:** Agentes Comunitarios de Salud; Atención Primaria de Salud; Competencia Profesional; Estrategia de Salud de la Familia; Estudio de Validación.

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## INTRODUCTION

Primary health care (PHC) has undergone important transformations in recent years in Brazil, and there is evidence of its positive effects on the health of the Brazilian population and the operationalization of the principles and guidelines of the Unified Health System (SUS).<sup>1,2</sup> The organization and development of the PHC are regulated by the National Policy of Primary Health Care (PNAB), which has the Family Health Strategy (FHS) as a priority measure to expand and consolidate Basic Care (BC). Nonetheless, the PNAB has recognized other strategies for organizing Primary Care throughout Brazil.<sup>3</sup>

The 2017 edition of the PNAB introduced significant changes in the organizational and functional dimensions, indicating the flexibility of the organizational modality: the FHS and traditional BC. Additionally, it disclosed changes in the attributions of professionals and the composition of the healthcare team, in addition to the number of community health workers (CHWs),<sup>4</sup> with the possibility of teams being composed of only one CHW.<sup>5</sup> Although some authors have considered these changes as a shortcoming, mischaracterization, and regression of PHC,<sup>4-7</sup> what is observed is an expansion of the FHS, with an 11.6% increase in coverage between 2013 and 2019.<sup>8</sup>

Among the members of the FHS team, the work of the CHWs stands out for playing a key role in bringing the community and health service closer together.<sup>9</sup> These professionals are essential in sharing knowledge between the health team and the community, approaching the disease, daily interactions, recognizing needs, identifying problems, guidance, referrals, follow-up, and carrying out health protection and promotion actions.<sup>3,10,11</sup>

In principle, the CHWs should work in the FHS teams based on the professional competencies established by the PNAB.<sup>3</sup> Nevertheless, the most recent version of this policy produced changes promoting the de-characterization of the educational nature of the work of these professionals as well as creating an erroneous competition between the preventive and health promotion nature of their work and conducting procedures considered more curative, which had until then been attributed to nursing technicians.<sup>6</sup>

Studies have reported the lack of clear delimitations in the CHWs' attributions, the excess number of functions, bureaucratization, the performance of tasks that go beyond the expected for their function, and the overload of activities.<sup>12-14</sup> The CHW is seen as a polyvalent worker who, given the lack of definition of the margins of their professional attributions and the idealization of their role, has their scope of action constantly expanded.<sup>12</sup> One example of the incorporation of new functions was the insertion of the common attributions between CHWs and the endemic disease control agents (ECAs), proposed by the PNAB of 2017.<sup>3,5</sup>

These facts reveal a need to review the CHWs' practices and fine-tune their actions, especially to avoid deviation and excess functions.<sup>12</sup> The wide range of duties CHWs can significantly impact their health and, consequently, the quality of services provided to the community.<sup>15</sup> These issues justify the need for an instrument that identifies the activities performed by these

workers to contribute to the analysis of their work practice, which can improve their quality of life and work and advance the care offered by PHC.

The functions performed by CHWs have been the subject of research since the beginning of their work in the FHS; nevertheless, no validated instrument has been identified to cover the various dimensions related to the activities performed by this professional.<sup>16-18</sup> Given this scenario, this study sought to fill this gap in the literature to develop and conduct the content and appearance validity of an instrument to identify the activities performed by CHWs in the FHS.

## METHODOLOGY

With a methodological nature, this study is part of the project entitled "Work and health conditions of community health workers in northern Minas Gerais: a longitudinal study." This research stage was developed in Montes Claros, a large city located in northern Minas Gerais State, Brazil. The study was conducted from May to July 2018, in which the proposed instrument was submitted to content validity and apparent validity.

Content validity is largely a matter of judgment involving efforts *a priori* to analyze each item of the instrument and *a posteriori* to assess the relevance and understanding of the content.<sup>19,20</sup> This study focuses on the phases of this process and consists of three stages.

### Stage 1 - elaboration of the instrument items

The preparation of the items on the activities performed by CHWs was based on the national guidelines contained in the PNAB,<sup>3</sup> which is a document that establishes the review of guidelines to organize the BC within SUS and provides the attributions of the professionals of the teams that work in the BC (including CHWs). In addition, a literature review of articles that address the subject was conducted through a search in the *Biblioteca Virtual em Saúde* [Virtual Health Library] platform by filtering Brazilian articles produced from 2013 and considering the five years before this project, in 2018. For this, the descriptors in health sciences "community health workers," "family health strategy," and "professional competence" were used. The articles that presented descriptions and analyses of the activities performed by CHWs were selected. Even though the activities of CHWs arouse interest in the scientific world, there are differences regarding the activities performed and their insertion in the health labor market both in Brazil and other countries.<sup>21</sup> Hence, we opted to search for studies in national databases and choose references that addressed the knowledge produced in the literature regarding the activities performed by CHWs in Brazil.

After analyzing the researched material, the main items within the subject were identified for the instrument's composition. The researchers, who had theoretical and practical experience with the theme, oversaw the document construction process. Forty-five items were elaborated and corresponded to the primary activities performed by CHWs. Afterward, the items were organized by related areas based on the similarity of the

activities, and ten dimensions were defined that expressed the functions recommended by the national guidelines, in addition to those that are not provided in these documents but are present in the CHWs' professional routine, as evidenced by research on the subject.<sup>9,12,16,21,22</sup>

The items were designed to explore various activities performed in the reality of CHWs' work. For all items, clarity and objectivity were valued, choosing an accessible language usually used in the daily life of the ESF. To complete the instrument, a Likert scale was inserted before each item to measure the performance of the activity described: 0 = never; 1 = rarely; 2 = sometimes; 3 = almost always; 4 = always. Additionally, the CHWs were asked to identify how much they agreed with carrying out the activity.

### Step 2 - content validity

After its construction, a group of expert judges submitted the instrument for content validity. Content evaluation is essential in developing new measures because it represents the beginning of mechanisms to associate abstract concepts with observable and measurable indicators,<sup>23</sup> involving qualitative and quantitative procedures. Qualitative data collected from respondents familiar with a given concept help enrich and extend what is known about the topic, serving as a valuable input source.<sup>24</sup> For quantitative analysis, scale developers provide evidence of content validity by calculating the content validity index (CVI) using item relevance ratings by experts in the subject studied.<sup>25</sup>

The members of the expert judges' group were intentionally chosen by snowball sampling, which uses chains of reference, where identified people are asked to indicate new contacts with the desired characteristics.<sup>26</sup> The inclusion criteria included having at least a master's degree, developing research in the area of PHC, and working and/or management experience in the FHS.

Therefore, ten judges were identified to evaluate the instrument; this number is in line with Lynn's proposal (1986), who advised a minimum of five and a maximum of ten experts participating in this process.<sup>20</sup>

Contact with the experts was established by e-mail. An online evaluation questionnaire was sent via Google Docs®, in addition to the informed consent form and an invitation letter explaining the study proposal. The electronic addresses were accessed by different means, including personal or telephone contact, when they were unavailable in scientific publications.

After the judges agreed to participate, they evaluated the instrument using a specific evaluation questionnaire, which allowed the specialists to analyze each item regarding relevance and semantic quality. Relevance was assessed using a Likert scale: irrelevant, not very relevant, relevant, very relevant. The clarity of each item was rated positively or negatively (yes or no). There was also a space for formulating suggestions regarding the need to add, modify, or remove any item. At the end of the questionnaire, the specialists made a global evaluation of the instrument through an open question, which allowed the discussion and formulation of suggestions for the instrument as a whole. This evaluation and debate process carried out by the judges on the instrument items

took place via e-mail in a three-round process. When there was a delay in responding to the instrument analysis, the authors contacted the judges via telephone, whose number was provided in the initial communication with the judges.

The data were entered into an electronic spreadsheet, and the experts' agreement as to the relevance of the items was checked using the CVI, which was calculated by dividing the number of judges who reviewed the item as relevant or very relevant by the total number of judges. In this study, the CVI value above 0.90 for each item was considered adequate, since the acceptable index of agreement among the members of the expert committee should be at least 0.80, but preferably higher than 0.90.<sup>25</sup>

### Step 3 - apparent validity

After the judges' evaluation and the proposed adjustments, the instrument was submitted for apparent validity (face validity) by the target population (a group of 15 CHWs). These CHWs comprised the sample of participants for the pilot study of the larger work in which this study is inserted and were randomly selected among those who did not meet the inclusion criteria of the parent project: working as CHWs for over six months and being in active practice.

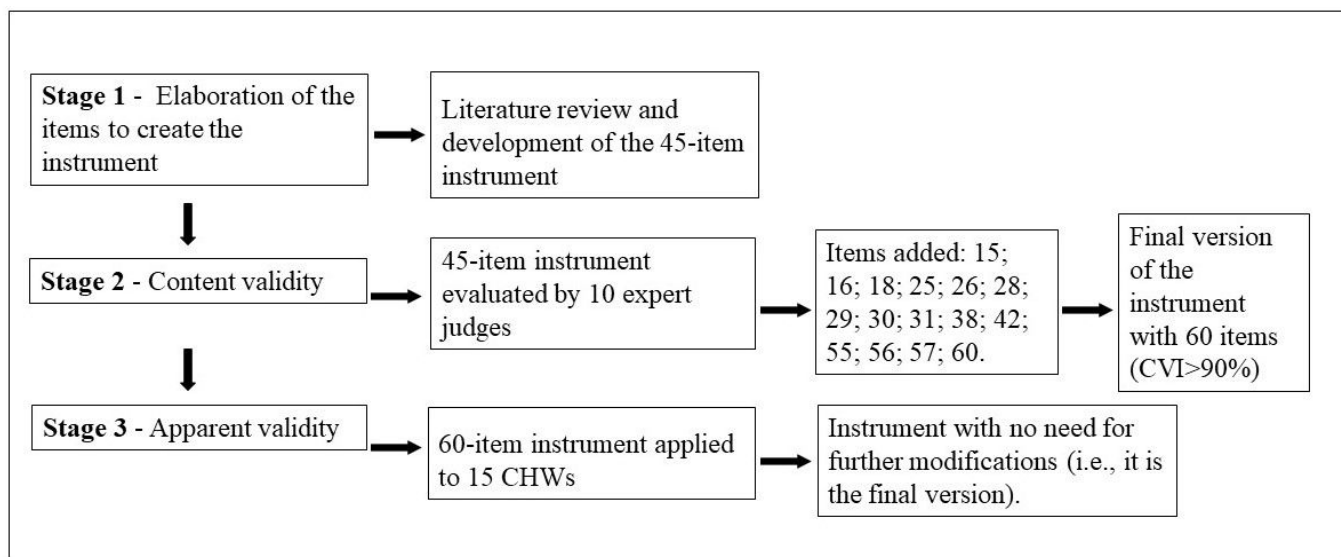
Apparent validity or face validity allows us to verify if the proposed instrument is apparently adequate to measure what is intended from the point of view of those who will use the instrument. It is not considered a sophisticated or mandatory evaluation, although it is complementary to construct validity and indispensable for later evaluations.<sup>27</sup> In this phase, the intention was to evaluate understanding, clarity, size of the instrument (number of questions), time to complete, and suggestions for improvement. The inclusion of people related to the study population is important and ensures the correction of sentences and terms that are not very clear.<sup>28</sup> A flowchart of the development and validity process detailing the steps mentioned is illustrated in Figure 1.

### Ethical aspects

This study complies with Resolution no. 466 of 2012, which regulates research involving human beings, and was registered under CAAE no. 80729817.0.0000.5146 and approved by the Research Ethics Committee of the State University of Montes Claros (Unimontes) under opinion no. 2,425,756 on December 8, 2017.

## RESULTS

In its preliminary version, the instrument was developed by analyzing the literature on the subject, resulting in 45 items composed of the main activities performed by CHWs. These items were divided into ten dimensions, namely: recognition of the area/population enrolled; health care actions; regulatory process from primary care; information for planning and monitoring of health actions and programs; health surveillance; information systems; management of inputs required for the proper functioning of the basic health unit; procedures; interdisciplinary and teamwork; and other actions, according to local needs.



**Figure 1** - Flowchart of the development and validity steps of the instrument “Identification of the activities performed by CHWs.”

The judges who evaluated the instrument were composed of 10 experts in the area; they had an average age of 41 years and consisted of seven nurses and three physicians, all with a record of experience and scientific production in the area according to their Lattes curricula. Among these professionals, six had master’s degrees, four had PhDs, five specialized in Family Health Residency, and three had experience in municipal management of Family Health teams.

The final definition of the items occurred after three rounds, in which the specialists evaluated the instrument and suggested the addition of questions and the dismemberment and modification of terms to improve understanding. In the third round, the CVI was equal to or higher than 0.90 in all items, so there was no need for exclusion in this phase. The items added by the judges covered scheduling medical appointments, scheduling dental appointments, scheduling visits for upper-level professionals, monitoring the directly observed treatment (supervised dose) of tuberculosis patients, updating data in the National Health Card; delivering medications and prescriptions at home, performing tasks outside working hours, home visits in uncovered areas, and unit janitorial activities. The terms “vulnerability” and “risk classification” were recommended to be clarified and the expression “health education” be replaced by “collective activity focused on health education.” In the item referring to the activity “update of anthropometric data of children,” the judges proposed to dismember it for the adult, elderly, and pregnant women segments, which was repeated in the item “check the vaccination card.”

All suggestions made by the judges were accepted, and the instrument was increased by 15 items. The version of the instrument with 60 items was forwarded to the experts and reached the acceptable level of agreement (CVI  $\geq$  0.90).

After this step, the instrument was validated by representatives of the target population in an analysis known as face or apparent validity.<sup>27</sup> For this phase, 15 CHWs from three FHS teams in the city answered the instrument. These CHWs ranged in age from 18 to 41 years old, were predominantly female, and were selected because they did not meet the inclusion criteria of the parent study (at the time of collection, they were in deviation from function, on leave, or had worked in the category for less than six months).

The average time used for filling out the instrument was 15 min, and no difficulties were reported concerning understanding the questions and filling out the instrument. The final version of the instrument and the CVI for each item are listed in Table 1.

## DISCUSSION

This study developed and performed the content validity and apparent validity of a self-administered instrument composed of 60 items to identify the activities performed by CHWs in FHS teams. Validity generally refers to the degree to which an instrument measures the variable it intends to measure. Among the types of validity, content validity indicates to what extent the instrument has an appropriate sample of items to measure the specific construct and adequately cover its domain.<sup>25</sup>

The validity process of the instrument, with the participation of experienced judges and scholars in the area, presents an advance and support to the discussions regarding this theme. The instrument can favor the analysis of the activities performed and help conduct a better definition of the CHWs’ scope of work, since the fragilities in the delimitation of the tasks developed by this profession impose contradictions and hinder the professional construction of the CHWs.<sup>14</sup>

**Table 1.** The instrument used to identify activities performed by CHWs and the content validity index (CVI) of the items.

<b>Identification of the activities performed by community health workers</b>					
Listed below are some activities performed by the community health workers in the team/health unit.					
- Please indicate how often you perform these activities in your team:					
0	1	2	3	4	
Never	Rarely	Sometimes	Almost always	Always	
- Please also indicate whether you agree or disagree with the performance of this activity by the Community health worker.					<b>CVI</b>
(1) Yes (2) No					
<b>Identifying the area/target population</b>					
1	Registration of individuals and families in the micro-area				<b>1.00</b>
2	Updating individual and household records				<b>1.00</b>
3	Identification of groups, families, and individuals exposed to risks and vulnerabilities (susceptible, in fragile situations, and living under precarious conditions)				<b>1.00</b>
<b>Health care actions</b>					
4	Monthly home visits to all the families in the micro area				<b>1.00</b>
5	Follow-up of registered individuals, with emphasis on priority groups (children, pregnant women, people with chronic diseases or other health problems)				<b>1.00</b>
6	Collective activity aimed at social mobilization (stimulating community participation in the local management of services, such as, for example, the management council)				<b>1.00</b>
7	Collective activity for health education				<b>1.00</b>
8	Participation in a physical activity group				<b>0.90</b>
9	Participation in School Health Program activities				<b>0.90</b>
10	Orientation to the community about symptoms, risks, and agents that transmit diseases				<b>1.00</b>
11	Orientation to the community about individual and collective protection measures				<b>1.00</b>
12	Orientation regarding the adequate use of health services				<b>1.00</b>
13	User embracement				<b>1.00</b>
14	Identification of patients who need priority care (risk classification)				<b>1.00</b>
15	Scheduling of medical appointments for spontaneous demand				<b>0.90</b>
16	Scheduling of scheduled medical appointments				<b>0.90</b>
17	Scheduling of nursing appointments (cervical cancer prevention, prenatal, childcare, family planning, hypertensive, diabetic, and others)				<b>0.90</b>
18	Scheduling dental appointments				<b>0.90</b>
19	Scheduling a home visit with a higher-level professional				<b>0.90</b>
20	Disclosure of the groups, events, and other actions promoted by the FHS				<b>1.00</b>
<b>Regulation process from primary care</b>					
21	Scheduling consultations and exams of users for other points in the care network				<b>0.90</b>
22	Information to users about scheduled appointments and exams				<b>0.90</b>
<b>Information for planning and monitoring health actions and programs</b>					
23	Monitoring and recording of the health conditionalities (requirements) of beneficiary families of the Bolsa Família Program				<b>1.00</b>
24	Updating anthropometric data (weight and height) of the children				<b>0.90</b>
25	Updating the anthropometric data (weight and height) of the adults				<b>0.90</b>
26	Updating the anthropometric data (weight and height) of the elderly				<b>0.90</b>
27	Checking the children's vaccination cards				<b>0.90</b>
28	Verification of adolescents' vaccination cards				<b>0.90</b>
29	Checking the vaccination card of adults				<b>0.90</b>
30	Checking the vaccination cards of the elderly				<b>0.90</b>
31	Verification of the vaccination card of pregnant women				<b>0.90</b>

Source: the authors

Table 1. Continued...

Identification of the activities performed by community health workers		
<b>Health surveillance</b>		
32	Actions to combat Dengue Fever by inspecting homes for <i>Aedes aegypti</i> foci	0.90
33	Carrying out an active search for diseases and illnesses	1.00
34	Notification of compulsorily notifiable diseases and diseases	0.90
35	Reporting diarrhea cases to the Acute Diarrheal Disease Monitoring Program (ADDM)	1.00
36	Identification of respiratory symptoms during home visits	0.90
37	Making of the Unit's Respiratory Symptom Map	0.90
38	Follow-up of the directly observed treatment (supervised dose) of tuberculosis patients	0.90
<b>Health information systems</b>		
39	E-SUS Registration - Home visit form	1.00
40	E-SUS Registration - Collective activity form	1.00
41	E-sus registration - food consumption markers	1.00
42	Updating of the National Health Card data	0.90
<b>Management of inputs required for the proper functioning of the basic health unit</b>		
43	Making of the Unit Material Map	0.90
44	Making of the Unit Condom Map	0.90
45	Making the Unit Vitamin A Map	0.90
<b>Procedures</b>		
46	Blood pressure measurement	0.90
47	Capillary blood glucose measurement	0.90
48	Measurement of axillary temperature	0.90
49	Performing a dressing	0.90
<b>Interdisciplinary and teamwork</b>		
50	Participation in team meetings	1.00
51	Use of matrix-based strategies (support provided to the team by professionals from different areas that enables the expansion and qualification of its actions)	1.00
52	Permanent education participation	1.00
53	Conducting case discussions with the team	1.00
<b>Other activities according to local needs</b>		
54	Duties at the Health Unit's reception desk	0.90
55	Home delivery of prescriptions and medications	0.90
56	Performing tasks outside of working hours	0.90
57	Conducting home visits in an uncovered area	0.90
58	Organization of attendance sheets and family envelopes	0.90
59	Organization of offices/replacement of materials	0.90
60	Caring for the unit's janitorial activities	0.90

Source: the authors

The work of CHWs and their function in the FHS have been extensively researched, with studies showing the complexity of these professionals' work in PHC. However, there is a lack in the literature of an instrument that has undergone some stage of the validity process to perform this analysis. In the literature search, we found articles on the subject with a qualitative approach<sup>9,12,15,21,22,29,30</sup> and non-validated questionnaires built from observational studies.<sup>16-18</sup>

The content validity comprises the psychometric analysis feasible for studies of this nature, where the objective is not the reduction of factors or dimensions but a positive and suitable

qualitative evaluation of the expressed content, an important phase in the development of instruments in the health area.<sup>28</sup>

In the content validity of the proposed instrument, the judges made constructive criticism and suggestions and evaluated the relevance of the questions and the clarity of the statements. This was a very important stage because, based on the adjustments suggested by those who had expertise in the area, the quality of the instrument could be improved to adapt and enhance the questions to the target audience. Among the items added by the judges, aspects that were not foreseen in the federal norms were highlighted, and administrative and bureaucratic activities

were inserted that are not part of the professional competence despite being ordinarily added to the CHWs' activities.

There was a broad discussion about the need to insert activities outside the scope of work of CHWs. As these activities are observed in the daily practice of these professionals, besides being identified by some studies,<sup>12,21,22,29,30</sup> the judges decided to keep these items and added others with this characteristic. This inclusion relied on the experience that the members of the expert committee had in the area.

Another decisive factor for incorporating activities that exceed the duties of the CHWs in the instrument is that they generate work overload and can cause illness and suffering for these professionals.<sup>13,15</sup> The performance of these activities shows a lack of clarity and limits in the activities performed by the CHWs, which mischaracterizes their work, generating distortions and a lack of definition of their role.<sup>22</sup> The consequence of this process is demotivation, one of the primary difficulties experienced daily by CHWs, since they feel unhappy and cannot see that the objective of their work is being fulfilled.<sup>29</sup>

The third edition of the PNAB, published in 2017 and in force at the time of this study, updates and indicates the attributions of PHC professionals, including CHWs. However, this document disclosed that the professionals may exercise their duties in Primary Care Teams or Family Health Teams according to local priorities determined by the managers. In addition to this possibility of adding other activities provided for by the PNAB,<sup>3</sup> the document, when describing the common duties to all team members, also left unclear what the limits of each professional's activities would be, including those of the CHWs.

The natural consequence of the lack of definition of the role and functions of the CHWs is that they end up assuming responsibilities that would be of the entire health team<sup>30</sup> or performing the functions of other professionals, such as nursing technicians and ECAs,<sup>5,6</sup> being unable to discern their own limits.<sup>30</sup> In general, the CHW is responsible for performing tasks that make them a generic assistant to the other professionals. Sometimes, these actions can be performed to supply the absence of other workers or because they are incorporated into the dynamics of work organization. One of the direct implications of this configuration of the CHW's work is the danger of becoming an advanced instrument of action with markedly medicalizing traits in the territory, with questionable impact on the population's quality of life.<sup>9</sup>

There may be other methods to analyze the activities developed by CHWs. Nevertheless, the aim of this study was to build an instrument to identify which tasks are being performed by CHWs, focusing on the main activities, including planned and unplanned ones. We must emphasize the difficulty of building an instrument that identifies the actions performed by CHWs, considering the large number and variety of activities performed, because, according to some authors, the field of action is comprehensive and complex.<sup>17,18</sup> The instrument, now validated, can help health managers and members of the FHS team, to the extent that CHWs can answer the instrument and record their

performance in each item, marking their level of agreement in performing that activity.

Studies conducted in different regions of Brazil<sup>9,22,31</sup> have identified problems in the work of CHWs, so the lack of knowledge about the activities performed by these professionals is a hindrance to their work.<sup>29,30</sup> Based on the instrument developed, it will be possible to shed more light on the activities performed by CHWs and analyze their work. Research such as this one is crucial because it helps to reliably measure the construct studied so that there is an identification with the reality of the work of these professionals. The analysis of the CHWs' answers can promote productive debates and discussions, with the implementation of measures and clarifications about the work of the CHWs, both for the members of the health team and for the community.

## CONCLUSION AND IMPLICATIONS FOR PRACTICE

The final version of the instrument showed satisfactory validity of content and appearance, as well as reflecting the reality of the CHWs' work. Its items comprise a wide range of activities developed by these professionals. It is an innovative instrument with the potential to be applied in various PHC settings in the country, since it recognizes the regulated attributions and those that go beyond the activities of this professional, allowing one to know possible generators of work overload. This instrument can promote the triggering of considerations about how the work of CHWs is being performed, allowing institutions, managers, and the workers themselves to develop a careful look at the theme, encouraging them to reflect on improvements in the work of these professionals, in supporting the teams, and in providing services to the community. The analysis of these issues must be inserted in a larger context of the discussion about the work process of the FHS teams and the attributions of its members.

The limitations of this study are related to the fact that content analysis is a subjective process, so its use does not exclude the need for other measures. In addition, the participants belong to a single city in the analyzed country, in which some issues may be very specific, such as the characteristics of the service and the way professionals, managers, and coordinators of the Family Health teams work, as well as cultural issues of the participants themselves.

## AUTHORS' CONTRIBUTIONS

Study design. Tatiana Fróes Fernandes. Lucinéia de Pinho. Maria Fernanda Santos Figueiredo Brito. Clara Cynthia Melo e Lima. Antônio Prates Caldeira

Data collection. Tatiana Fróes Fernandes.

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