

BOOKLET FOR MANAGERS OF BASIC HEALTH UNITS IN RIO DE JANEIRO

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ABSTRACT

The objective of this study is to validate an educational instrument in the format of a guideline booklet, in order to assist the managers of the Primary Health Care units in the work processes, being a technological product of the Professional Master's Degree in Primary Health Care of the Federal University of Rio de Janeiro. having the following stages: a) data collection from a field research carried out with the managers of Primary Health Care assigned to CAP 3.1 in Rio de Janeiro with interview and subsequent content analysis through Bardin's principles; b) elaboration of an integrative review for theoretical deepening; c) creation of word clouds in the light of the PNAB and the statements of the most frequent health professionals; d) development of the material by a graphic designer; e) validation of the content of the instrument by expert judges and the target audience. The statistical analyses used were expected by the literature so that it would be possible to have their reliability and ratification of agreement through the statistical methods used. The results obtained from the judgments of the expert judges and the target audience were sufficient for validation, in relation to language, content, layout, structuring and illustrations.

Keywords: Health Services Management. Validation Studies. Education.

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INTRODUCTION

The Health System in Brazil has undergone different changes over decades, with striking characteristics that have accompanied the political and economic trends of each historical moment. Undoubtedly, in 1988, after the creation of the Unified Health System (SUS), Brazil took a great leap forward in relation to a more dignified and fair health policy. After the creation of the SUS, and with the need for changes in the format of health care, they culminated in the development of the Family Health Program (PSF) in 1994, receiving different incentives from the government and enabling access to health care mainly for the most vulnerable populations¹.

The change in nomenclature from PSF to Family Health Strategy (FHS) came in 1999, with great government incentive for the reorganization of the entire health system. The respective reorganization of the primary care service in the municipalities was a precursor to the National Policy of Primary Health Care, ratifying the "general principles, responsibilities of each sphere of government, necessary infrastructure and resources, characteristics of the work process, attributions of professionals, and financing rules, including the specificities of the Family Health strategy"².

In 2017, the Policy underwent modifications including the position of managers and their attributions within primary care units. The inclusion of this professional must be evaluated by the manager, according to the needs of the territory and its scope. The management is responsible for coordinating the work process of the ESF and inducing actions articulated with the principles and guidelines of the National Primary Care Policy³.

Considering the complexity of managing UBS, it is necessary to invest in training projects aimed at UBS management, since the courses offered in the market are still very focused on hospital administration. The thinkers and planners of these courses have given little thought to projects for the management of UBS, with activities related to family health teams in which work with prevention and health promotion is the focus of the professionals' work. Activities should contemplate not only the reorganization of services, but also local specificities and aspects inherent to a flexible management practice⁴. In view of this, it is necessary to expand projects aimed at the management of UBS, as well as the productions in this area, since the literature is scarce, considering the expansion of the FHS and consequently the increase in professionals assuming management positions in the units that require due preparation.



Thus, the main objective of this study was the validation of an educational instrument in the format of a guideline booklet, in order to assist the managers of Primary Health Care units in the work processes. It is worth mentioning that this facilitating instrument with a theoretical and scientific basis can contribute to improvements in the structuring of services, and advances in the demands for results.

METHODS

The research is a methodological study, which was carried out from December 2023 to January 2024, with the stages of construction of the booklet and its validation process.

The development of the booklet entitled "Booklet of Guidelines Experiences, Potentialities and Challenges of UBS Managers in the Municipality of Rio de Janeiro" involved an established methodological path: a) elaboration of an integrative review for theoretical deepening on the theme; b) collection of empirical data from a field research carried out with the managers of Primary Health Care located at CAP3 3.1 in Rio de Janeiro with interview and subsequent content analysis using Bardin's principles; c) development of the text of the educational material (booklet), including the illustrative part by a graphic designer; e) validation of the content and appearance of the booklet with expert judges and the target audience through the Suitability Assessment of Materials (SAM) questionnaire⁵.

BIBLIOGRAPHIC SURVEY

The research obtained as the formatting of its search the descriptors "Management in health services"; "Unified Health System"; and "Primary Health Care", in the VHL and Scielo databases, being carried out between 2009 and 2022. The sample obtained 7 articles after insertion with subsequent analysis by the Bardin method. The results highlighted the challenges and potentialities of the managerial position of the basic health units, emphasizing factors such as the fragile professional valuation and low training for the position, surrounding adversities in the process of people management, use of information systems and also with the higher levels of the hierarchy.

In addition, materials, manuals, and duly validated instructions and bodies with a congruent basis to the theme were sought so that it was possible to expand the content to be explored by the educational instrument.



CONSTRUCTION OF THE FACILITATING MATERIAL

After the separation and floating reading of the materials appropriate to the theme chosen for the booklet, the contents that would be addressed were outlined. The booklet was structured based on the development of a word cloud as a result of subsequent studies. The most frequent topics were prioritized for greater approach.

From this, a structuring was carried out so that there was the adequacy of language, layout, content and illustrations and delivery to the required professional. The designer was chosen for his specialization in Family and Community Health, and experience with the construction of educational materials in appropriate programs, with the use of *CANVA* as a tool for creation.

VALIDATION OF CONTENT AND APPEARANCE BY JUDGES AND TARGET AUDIENCE

The validation procedure was carried out, in terms of content and appearance, by a Committee of Experts in the area of interest (subject of the booklet) who acted as judges. These judges were distributed in evaluation categories for content analysis and/or design and marketing of the educational material, with reference to professional experience and methodological and technical competence related to the content of the technology to be evaluated.

In relation to the expert judges, they were selected through "snowball" sampling, which is characterized as convenience sampling, widely used when the group to be selected is composed of people with specific characteristics that are difficult to find. The selection criteria adapted from the Fehring criteria were adopted for the content and design judges: academic background in the area of health or education, professional performance in the ESF (teaching, research, extension), scientific production consistent in the area of knowledge of the booklet (management and/or PHC). For the design judges, the following selection criteria were adopted: preferably proven experience of at least one year in any of the following areas: digital and offline communication; advice on design, communication, digital marketing; digital marketing analyst; creation; web designer; Publicity and Propaganda⁶.

An invitation letter was sent via WhatsApp (R) /e-mail to the judges and those who agreed to participate in the research had online access, through the Google Forms® tool, to: ICF for judges, alpha version of the booklet, and validation protocol as detailed in the judges' evaluation instruments. The deadline for returning the contact was 7 calendar



days. After the judges' considerations, the necessary adjustments were made to the educational material, to proceed with the validation of the booklet, by the target audience, with the beta version, already modified.

The content evaluation questionnaire sent to the content judges was adapted by the researcher following the recommendations of Pontes, Domingues and Kaizer as provided in and is structured in: I – information regarding the area of professional activity and scientific production of the judge/specialist; II – Likert-type scale, with levels ranging from 1 = inadequate, 2 = partially adequate, 3 = adequate, 4 – totally adequate, on items related to the objectives; structure and presentation; and relevance of the booklet. To validate the booklet with the design judges, the Suitability Assessment of Materials (SAM) questionnaire was used, in which these judges were also questioned about their professional performance and scientific production⁷.

Then, they answered questions contained in a Likert-type scale, with levels ranging from 1 = inadequate, 2 = partially adequate, 3 = adequate, 4 = totally adequate, regarding the items related to the educational booklet. Congruently, the validation of the booklet by the target audience occurred through the application of a specific evaluation questionnaire. The evaluation questionnaire for the target audience was divided into two parts, the first containing identification information and the second representing the evaluation area of the booklet. The educational instrument was evaluated according to the adequacy of the items: No=1, Part=2 or Yes=3. The items were considered validated when they presented a minimum agreement of 75% in the positive answers. Items with a lower agreement index will be considered subject to change.

The analysis method through the Delphi technique was also applied, with the objective of analyzing the judges' evaluations of each term proposed in the questionnaire from successive rounds, which can be adjusted from 2 to 4 according to the researcher's needs. The instrument is carried out in rounds, in which the questions are answered quantitatively (Likert Scale), with qualitative justification. Thus, the analysis of the answers is returned to the experts, until they can reach a consensus, in order to generate suggestions and improvement in the product⁸.

The variables of the booklet that were considered for validation are: language-pertinence, language-comprehensiveness, language-clarity, layout-pertinence, layout-clarity, illustration-pertinence and illustration-clarity. The pertinence is related to the concepts presented in the booklet and sought to reflect the information based on the



scientific literature, relevance to the situation presented in the educational material and appropriate to the proposed objective; clarity refers to the wording of the items, that is: whether the text appropriately expresses what is intended to be measured and whether it faithfully translates the desired concept; and finally, the scope must cover the information in a sufficient way to achieve the objective of each topic of the booklet.

DATA ANALYSIS

For the analysis of these results, the Content Validity Index (CVI) was used to validate the instruments, and a validated item was considered to be one that presented a value equal to or greater than 0.80, both for content validation and for designer validation. The CVI was calculated based on the sum of the "3" and "4" answers of each judge in each item of the questionnaire, with the sum divided by the total number of answers. Items that received a score of "1" or "2" were reviewed or eliminated, and validated when they presented suggestions for changes.

In addition, the Validation Coefficient (CVC) was also applied, based on the sum of all the answers of each judge in each item of the questionnaire of each instrument, with the calculation of errors and average between the values. Subsequently, the binomial test with P value extraction was applied in the *SPSS* statistical program, in order to verify whether the study has sufficient evidence to consider the hypothesis as true. The *p value* was considered when >0.05, and it was possible to exclude the null hypothesis.

Next, the Kappa method was applied in the program between two random evaluators so that the level of agreement between the evaluators' data could be evaluated. According to Landis and Koch, his interpretation was given by:Insignificant (less than 0); Fair (between 0.21 and 0.4); Moderate (0.41 and 0.6); Strong (0.61 and 0.8). The Cronbach's alpha method was used to evaluate the reliability of the data obtained, and was considered reliable from 0.7⁹ ¹⁰.

After the considerations of the target audience, the researcher made the necessary adjustments to the material, to proceed with the validation of the educational material, in order to conclude this process through the elaboration of the definitive version of the booklet, already duly validated.



ETHICAL ASPECTS

The project was submitted to all instances of appreciation as determined by law. Registration in the Plataforma Brasil (PB) and Research Ethics Committee (CEP) was requested, and was approved according to opinion No. 6,436,048 of the CEP/EEAN/HESFA/UFRJ, registered under CAAE No. 70553823.0.3001.5279.

RESULTS AND DISCUSSION

The booklet obtained as a technical technological product of the Professional Master's Degree in Primary Health Care at the Federal University of Rio de Janeiro was developed in 43 pages, with a front cover, back cover and presentation page. Thus, the instrument was organized into nuclei, such as territorialization (guidance for territorial diagnosis), people management (techniques to achieve greater success in people management and leadership), training in information systems (instructive for improvements in information systems), administrative management (strategies for a better mastery of the unit's administrative processes and strategic planning (tactics for better time direction).

The product was developed with illustrations that facilitate understanding, without excessive texts for ease of reading for better use of the content. The sequence of information sought to be placed in a logical way with the proposal of the nuclei, so that there would be meaning in the manager's fluidity. In addition, the introduction of the themes was preceded by the corresponding attribution described in the PNAB, in order to provide a demonstration and ratification of the content. The following are some images of the respective booklet (Figure 1)³.

Figure 1 - Images of the booklet entitled "Booklet of Guidelines Experiences, Potentialities and Challenges of UBS Managers in the Municipality of Rio de Janeiro"



In the content and design content validation process, 58 expert judges were chosen to judge the design and content, obtaining responses from 41 participants in a timely



manner. Regarding the area of training, most have a degree in nursing (37.8%), working in Primary Health Care and public health. Thus, 35.7% have a specialization in the area of public health and/or family and community health, 28.6% have a master's degree completed or in progress, and 19% have a doctorate completed or in progress. In addition, it is important to emphasize that 66.8% of the judges have some publication in educational technologies and/or managerial activities at the UBS.

Table 1 - Profile of the Expert Judges of the Study (continued)

Characterization of the judges	n(%)
Profession	
Nurse	16(37,8%)
Dental Surgeon	2(4,2%)
Graphic designer	3(6,3%)
Doctor	4(9,6%)
Sanitarian	4(8,7%)
Nutritionist	3(6,7%)
Public Health Researcher	2(4,2%)
Other	22,5%
Formation Time	
0- 10 years	16(38,1%)
11-20 years	14(34,1%)
>20 years	12(27,8%)
Titration	
Masters	12(28,6%)
Specialization	15(35,7%)
Complete Higher Education	7(16,7%)
Doctorate	8(19%)
Research in the area of the theme	18(66,8%)

Source: Own

The analysis of the judges' judgment demonstrated the reliability and agreement of the study. The CVI calculated per item obtained an average of 0.95 (global CVI) in the first



instrument, and in the second, 0.90, which the literature identifies as the gold standard. The CVC was configured with a final average of 0.88 in the content evaluation and 0.86 in the design evaluation.

This scenario is congruent with studies that characterize with adequate validation, considering its value above 0.8¹¹. The *p value* was greater than 1 in all items, and the significance index considered(0.05) could disregard the null hypothesis in all items of the instruments.

Chart 1 - Judgment of the Content by the Expert Judges (more)

JUDGMENT	IVC	CVC	KAPPA	ALPHA	P VALUE
Consistency with the needs of professionals	0,88	0,85	0,4	0,7	>1
Provider behavior and attitude change	0,90	0,82	0,5	0,7	>1
Ability to circulate in the scientific environment	0,98	0,91	0,4	0,7	>1
Appropriate for recommendation by the FHS team	0,93	0,88	0,5	0,7	>1
Clear and objective messages	0,93	0,90	0,4	0,7	>1
Information presented is scientifically correct	0,95	0,88	0,7	0,7	>1
Logical sequence of the proposed content	0,93	0,89	0,4	0,7	>1
Is the material appropriate to the sociocultural level of the target audience?	0,95	0,91	0,4	0,7	>1
Is the information well structured in agreement and spelling?	0,93	0,88	0,8	0,7	>1
Does the writing style match the level of knowledge of the target audience?	0,95	0,91	0,5	0,7	>1
Cover and back cover information, acknowledgments and presentation	0,95	0,91	0,4	0,7	>1
Expression of the illustrations	0,95	0,89	0,4	0,7	>1
The number of pages	0,93	0,87	0,4	0,7	>1
The length of the title and topics	0,95	0,85	*	0,7	>1
Existence of unnecessary information	0,95	0,77	*	0,7	>1



Retraction of Key Aspects	0,93	0,87	*	0,7	>1
The material proposes to professionals to acquire knowledge	0,83	0,91	*	0,7	>1
Suitable for use by any healthcare professional in educational activities	0,93	0,92	*	0,7	>1

^{*}There was no score because the variable is a constant

The Kappa coefficient was also used, presenting values between 0.4 and 0.8 in the respective validations, which demonstrates a moderate to good agreement among the judges. It is worth noting that some results of specific terms in the validation were not scored, and it was rectified by the statistical program that the variances were constant¹². Cronbach's alpha also assumed satisfactory values in the design and content judgments by the experts. The literature shows that on a scale of 0 to 1, a result close to 1 is desired, and values from 0.6 or higher are acceptable to ratify the reliability of the study¹³.

Chart 2 - Judging the Design by the Expert Judges (more)

ITEM	IVC	CVC	KAPPA	ALPHA	P VALUE
Evidence of the booklet's purpose	0,93	0,87	0,4	0,6	>1
Content with behaviors related to managerial work in the UBS:	0,93	0,88	0,4	0,6	>1
Focus of the content on the purpose of the booklet	0,90	0,84	0,5	0,6	>1
The content highlights the main points of the booklet's purpose	0,93	0,87	0,5	0,6	>1
Reading Level	0,93	0,88	0,5	0,6	>1
Vocabulary	0,90	0,83	0,7	0,6	>1
Contextualization	0,88	0,86	0,4	0,6	>1
Topic-based learning	0,88	0,85	0,8	0,6	>1
Illustrations referring to the texts are clear	0,90	0,87	0,5	0,6	>1
Relevance of figures/illustrations	0,93	0,85	0,4	0,6	>1
Legend of Illustrations	0,95	0,87	0,4	0,6	>1



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Material Cover	0,93	0,87	0,4		>1
Expression and sufficiency of the illustrations	0,93	0,86	0,4	0,7	>1
Layout Feature	0,95	0,87	*	0,7	>1
Size and font	0,93	0,85	*	0,6	>1
Subheadings are used	0,88	0,87	*	0,6	>1
Interaction	0,90	0,85	*	0,6	>1
Specificity of the guidelines	0,85	0,80	*	0,7	>1
Motivation to change behavior	0,88	0,81	*	0,6	>1
Cultural Appropriateness of Material	0,93	0,87	*	0,7	>1
Appropriateness of images and examples to culture	0,93	0,85	*	0,7	>1

Source: Own/*There was no score because the variable is a constant

The booklet was also validated by the target audience, most of whom have training in the area of nursing, work in Primary Health Care and mostly specialists in the thematic area. The judgment was carried out by invited managers, obtaining feedback from 24 judges. The analysis of the judgments was validated, with an overall CVI of 0.94 between the terms, CVC of 0.98 and a *p value* greater than 1, with a significance level of 0.05, again rejecting the null hypothesis.



Chart 3 - Judging the	e design l	by the Target Aud	ience (more)
ITEM	IVC	CVC	P VALUE
Explanatory Language	1,0	1,0	>1
Encouragement of UBS managerial work	0,92	0,97	>1
Vocabulary	0,96	0,99	>1
Language Adequacy	1,00	1,00	>1
Objectivity and Clarity of Ideas	0,96	0,99	>1
Interaction between professionals	0,96	0,99	>1
Material Size	0,96	0,99	>1
Simplicity and Attraction of the Primer	0,92	0,97	>1
Appropriate and easy- to-understand illustrations	0,92	0,97	>1
Familiarity of the illustrations with readers	0,88	0,97	>1
Relationship of Illustrations to Text	0,88	0,96	>1
Self-explanatory illustrations	0,92	0,96	>1
Benefit of Material for local management	0,80	0,97	>1
Use of words with double meanings	0,92	0,90	>1
Content with Professional Appreciation	1,0	0,97	>1
Cover Printing	0,96	1,00	>1
Appropriateness of the size and style of the letters	0,88	0,99	>1
Text organization	1,00	0,96	>1
Structure of the Booklet	0,92	1,00	>1
Paper contrast	0,92	0,97	>1
Booklet inserted in culture	0,88	0,97	>1
Importance of using the booklet	1,00	0,96	>1
Proposal to act or think differently from the booklet	0,96	1,00	>1

Source: Own

It should be noted that the validation of the technological product was carried out primarily by the specialists, and then by the target audience, in order to obtain a theoretical-scientific ratification based on reference opinions to avoid the multiplication of mistaken ideas or practices. Through the questionnaire, it was also possible to receive suggestions



from the participants involved, such as in some illustrations, in the organization/order of the content, deepening some specific subjects, among others, being accepted or not after a meeting with the researcher, specialists and advisors.

Chart 4 - Judges' suggestions for improving the instrument (more)

Chart i daagde daggediene id	Improving the institution (more)
Judges' Suggestions	Actions
Formatting	
References in ABNT or Vancouver format throughout the text and page numbering	Accepted
Fragmentation into more topics in the Table of Contents	Accepted
Bibliography Withdrawal in QR CODE	Not Accepted
Changes of a Figure in English to Portuguese	Not Accepted
Change of Title	Not Accepted
Inclusion of Acknowledgments in the material	Accepted
Evaluation for better verbal and nominal agreement of the text	Accepted
Decrease of the Source	Accepted
Content	
Further development on the topic of monitoring work processes	Accepted

Source: Own

Thus, it was possible to perform the Delphi technique, enhancing the instructive in a qualitative way, for a better improvement and adequacy of the target audience. Undoubtedly, educational material has its use increasingly increased in countries and disseminated in the health environment, being a means of condensing information and scientific guidelines for professionals who work in management positions in Primary Health Care.

It is worth mentioning that this instrument does not replace the application of courses, workshops or any other type of action of services that reflect the continuing education necessary in the Unified Health System. The booklet has some limitations, such as a certain restriction of the content due to the extension of the work (avoiding becoming tiring), focusing on the content of the greatest weaknesses of the PHC management scenario in the city of Rio de Janeiro.



CONCLUSION

The booklet was considered sufficiently validated by the expert judges and the target audience, in relation to language, content, layout, structuring and illustrations. Thus, this educational instrument aims to help the managers of the basic health units to carry out the work processes and the exhaustive demands of the services with superior success, in order to generate comprehensive, equitable and universal care for the users of their assigned territory.



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