



# Validation of HIV/AIDS coping construct: a methodological study

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# ABSTRACT

**Aim:** validate the content and construct, and evaluate the reliability of a questionnaire for assessing HIV/AIDS control in Primary Health Care (PHC). **Method:** a methodological study for the validation of questionnaire content, carried out with 20 specialists, and construct validation and reliability assessment, performed with 397 PHC health professionals. **Results:** 31 questions were validated regarding the content. Of these, 18 were considered valid and reliable and remained in the questionnaire in its final version. **Conclusion:** the issues that remained in the instrument make it possible to evaluate the control of the HIV/AIDS epidemic in PHC with fewer possible questions, making it easy to apply and reproduce.

Descriptors: Acquired Immunodeficiency Syndrome; HIV; Primary Health Care; Validation Studies.

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# INTRODUCTION

The HIV/AIDS epidemic presents itself as a complex challenge and requires continuous efforts. In the context of this epidemic, in 2014, 90-90-90 goals were agreed globally and they refer to: 90% of people living with HIV/AIDS (PLWHA) should be diagnosed, 90% of PLWHA diagnosed in treatment, and 90% of PLWHA in treatment presenting viral suppression<sup>1</sup>.

In Brazil, one of the countries that have committed themselves to the 90-90-90 goals, a number of actions have been developed, especially at the Primary Health Care (PHC) level, with the aim of improving strategies for prevention and early detection of PVWHA. In this context, it is necessary to know the actions of coping with HIV/AIDS developed by health professionals in PHC.

#### AIM

Validate the content and construct and evaluate the reliability of a questionnaire aimed at assessing HIV/AIDS control in PHC, through the care provided by health professionals.

#### METHOD

Methodological study, developed through content validation, construct validation and questionnaire reliability evaluation after literature review of articles published in the last 10 years. The questionnaire consisted of: sociodemographic and economic characterization of the participants (seven questions) and specific part (47 questions).

Content validation was performed with 20 experts in the area, with ten health professionals and ten undergraduate health professors. The validation of the construct, in turn, was performed with 397 professionals from the Family Health Strategy (FHS) of two municipalities located in the state of Ceará and Rio Grande do Norte.

The data were analyzed by the Statistical Package for the Social Sciences (SPSS) version 20.0. Content validity was analyzed through the level of consensus responses, associated with the Kappa index (ranging from +1 to -1), to measure the level of agreement and consistency of the specialists regarding the permanence of the questions. For the permanence of the questions, a Kappa coefficient value  $\ge$ 0.41, associated with a concordance percentage  $\ge$ 75.0%, was considered.

Exploratory factorial analysis (EFA) and confirmatory factorial analysis (CFA) were used in construct validation. The reliability was verified by Cronbach's alpha (ranging from 0 to +1), through the adoption of an alpha greater than 0.6, and reproducibility, by means of the testand-retest. Reproducibility data were analyzed by Kappa.

The development of the study met the ethical norms of research involving human beings (Certificate of Presentation for Ethical Appreciation - CAAE: 23067613.0.0000.5537).

#### RESULTS

At the first moment of content validation, 16 questions were eliminated because they did not present the established agreement index; 18 questions were evaluated with Kappa values  $\geq$  0.41, with a 75% to 100% approval regarding the permanence in the questionnaire; however, they were analyzed with the need for modifications. Other 13 questions presented a 100% agreement percentage level and Kappa +1 and no suggestion in terms of modifications. After the modifications, the 31 questions were reevaluated by the specialists and obtained 100% agreement and kappa +1.

In the validation of the construct, of the 31 questions that remained after the content validation, only 18 presented the requirements required for the development of the EFA with KMO = 0.71 and significant Bartlett sphericity test (p<0.001). The 18 questions presented Cronbach's general alpha of 0.75. The CFA model adjusted for the ratio x2/gl (degrees of freedom) provided the value of 1.94.

Finally, the reproducibility of the questionnaire, developed with 45% of the participating population (179 professionals), showed Kappa values ranging from 0.703 to 0.947.

# DISCUSSION

The questionnaire, composed initially of 47 questions, was reduced to a total of 31 through the guidelines of the specialists. Of these, only 18 met the necessary conditions for the realization of the EFA, since the excluded issues had factorial loads and low commonalities. The factorial solution found was able to explain the theoretical model, evaluating the control of the HIV/AIDS epidemic in PHC with fewer possible variables<sup>2</sup>.

It is believed that the validated questionnaire can lead to a more precise diagnosis construction, making it possible to identify the needs of each context. However, every evaluation questionnaire has limitations in terms of scope given the impossibility of investigating all the variables on the subject in a single study<sup>3</sup>.

# CONCLUSION

The instrument, composed of 18 questions, is validated and reliable to be applied to PHC health professionals in order to develop a situational diagnosis of actions to cope with the HIV / AIDS epidemic.

# REFERENCES

- 1. UNAIDS. Fast-Track: acabar com a epidemia de AIDS até 2030; Genebra: Programa Conjunto das Nações Unidas sobre HIV / AIDS; 2014.
- Hair Junior JF, BlackWC, Babin BJ;Anderson RE;Tatham RL. Análise multivariada de dados. 6° ed. Porto Alegre: Bookman, 2009. 688 p
- Miranda AR, Araújo CS, Castro FS. Instrumento para coleta de dados de pacientes com artrite reumatoide.RevEnfermCent O Min. 2012; 2(2):228-42.

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**Reference:** Castro RR. Elaboration and validation of a questionnaire for evaluation of HIV/AIDS control in basic care. 117f. [Dissertation] - Mossoró: Graduate Program in Health and Society, State University of Rio Grande do Norte; 2015. All authors participated in the phases of this publication in one or more of the following steps, in according to the recommendations of the International Committee of Medical Journal Editors (ICMJE, 2013): (a) substantial involvement in the planning or preparation of the manuscript or in the collection, analysis or interpretation of data; (b) preparation of the manuscript or conducting critical revision of intellectual content; (c) approval of the version submitted of this manuscript. All authors declare for the appropriate purposes that the responsibilities related to all aspects of the manuscript submitted to OBJN are yours. They ensure that issues related to the accuracy or integrity of any part of the article were properly investigated and resolved. Therefore, they exempt the OBJN of any participation whatsoever in any imbroglios concerning the content under consideration. All authors declare that they have no conflict of interest of financial or personal nature concerning this manuscript which may influence the writing and/or interpretation of the findings. This statement has been digitally signed by all authors as recommended by the ICMJE, whose model is available in http://www. objnursing.uff.br/normas/DUDE\_eng\_13-06-2013.pdf

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