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Cultural adaptation of the opening minds scale for health care providers(OMS-HC) for Brazil

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ABSTRACT. The Opening Minds Scale for Health Care Providers (OMS-HC) identifies health professionals' attitudes and behaviors towards people with mental illness. The aim of this study was to culturally adapt the OMS-HC for use in Brazil through the description of the translation and back-translation process, face and content validity assessment, and reliability assessment. The cultural adaptation occurred through translation of the original instrument, assessment, and synthesis of the translation by the Committee of Judges, back-translation, and pre-test. The cultural adaptation occurred without significant intercurrences, the changes resulting from the translations and assessments were, in general, specific and related to the changes of certain words by other synonyms for better adaptation. Cronbach's alpha was 0.74. The Brazilian version of the OMS-HC presented language adequate to the Brazilian context that is easy to apply, with adequate format for use, appropriate understanding, and consistency in relation to the original version. The Brazilian version of the OMS-HC is suitable for the development of a study to assess its psychometric properties.

Keywords: stigma; health professionals; people with mental illness; cultural adaptation; methodological study.

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Introduction

Stigma is a social construction that devalues people according to a socially undesired characteristic/brand (Goffman, 1988; Biernat & Dovidio, 2000). As a comprehensive term, stigma includes three elements: knowledge (ignorance), attitudes (prejudice), and behavior (discrimination) (Thornicroft, 2006). It is considered an important variable for people who need mental health treatment because it influences the impact of interventions (Caldwell & Jorm, 2000). To improve the quality of life of people with mental illness and sustain such benefits over time, it is necessary to understand and reduce the effect of social stigmas (Link, Phelan, Bresnahan, Stueve, & Pescosolido, 1999).

Studies vary in the dimensions of the stigma examined, but the most common are: perceived stigma (belief of people who perceive an individual as socially unacceptable); self-stigma (similar and internalized perception of oneself leading to fe ar of seeking help or revealing the mental illness due to the associated stigma); social distancing (desire to keep distance from people with mental illness); dangerousness (belief that the individual is dangerous); recovery (belief that people with mental illness may or may not recover); and emotional reactions (lack of social responsibility, as well as lack of empathy or compassion for people with mental illness (Kassam, Papish, Modgill, & Patten, 2012).

Much of the stigma studies focus on the attitudes and beliefs of the general public towards people with mental illness (Thornicroft, Rose, Kassam, & Sartorius, 2007), which are often perceived as strange, frightening, unpredictable, aggressive and devoid of self-control (Phelan & Link, 1998; Link et al., 1999; Crisp, Goddard, & Meltzer, 2000). However, health professionals are no less susceptible than the public in general to stigmatizing beliefs and behaviors regarding people with mental illness (Hodges, Inch, & Silver, 2001; Rüsch, Angemeyer, & Corrigan, 2005; Kassam et al., 2012).

Health professionals are responsible for offering possibilities of change, prevention, dissemination of information, and treatment, and are considered as a group with great potential for reducing stigmas related to mental health (Kassam et al., 2012). In this sense, it is relevant that health professionals are aware of the

adverse impact that stigmatizing attitudes and discriminatory behaviors can have on patients of health services (Caldwell & Jorm, 2000).

Investing in the education initiatives of health professionals on stigmatizing attitudes and practices that can build and raise awareness of the damage they may cause in relation to trust, hope, chance of recovery, and quality of life for health service patients is essential to reducing such stigmas (Hanssom, Jormfeldt, Svedberg, & Svensson, 2013). Public awareness campaigns have been identified as potential strategies to address stigma and have been implemented in many countries to reduce the stigma associated with people with mental illness (Horsfall, Cleary, & Hunt, 2010).

In Canada, the Mental Health Commission of Canada (MHCC) created an anti-stigma initiative called 'Opening minds' to change the attitudes and behaviors of different population groups towards people with mental illness. To include health professionals in achieving this goal, 'Opening minds' needed a current, reliable, and valid scale to assess stigma reduction practices towards people with mental illness, as many scales that exist today are not suitable for purposes specifically related to health professionals (Kassam et al., 2012). Thus, the Opening Minds Scale for Health Care Providers (OMS-HC) was developed as a self-report scale that identifies health professionals' attitudes and behaviors towards people with mental illness. The OMS-HC consists of a series of items, each with a balanced sequence of value responses: strongly agree, agree, neither agree nor disagree, disagree, strongly disagree, with a score of 1 to 5 being attributed to each item. The OMS-HC measures five dimensions related to stigma: Recovery; Social responsibility; Social Distancing; Other concepts (dangerousness, obscuring diagnosis); and Disclosure (Mental Health Commission of Canada [MHCC], 2015).

Cultural adaptation allows new studies to assess the psychometric properties of the scale to contribute to the measurement of the stigma of health professionals in relation to people with mental illness. Thus, the present study aims to culturally adapt the OMS-HC for use in Brazil.

Method

Research type and location

This is a methodological study, with a cross-sectional design, whose proposal was, following the recommendations of Guillemin, Bombardier, and Beaton (1993) and Ferrer et al. (1996), to assess the face and content validities of the scale and to assess the reliability of the version adapted to Brazilian Portuguese by the OMS-HC in a sample of health professionals (Figure 1 - flowchart). The study was carried out in Primary Health Care (PHC) services, such as Basic Health Units (Portuguese acronym: UBSs) and Family Health Units (Portuguese acronym: USFs) in the city of Ribeirão Preto (SP), Brazil.

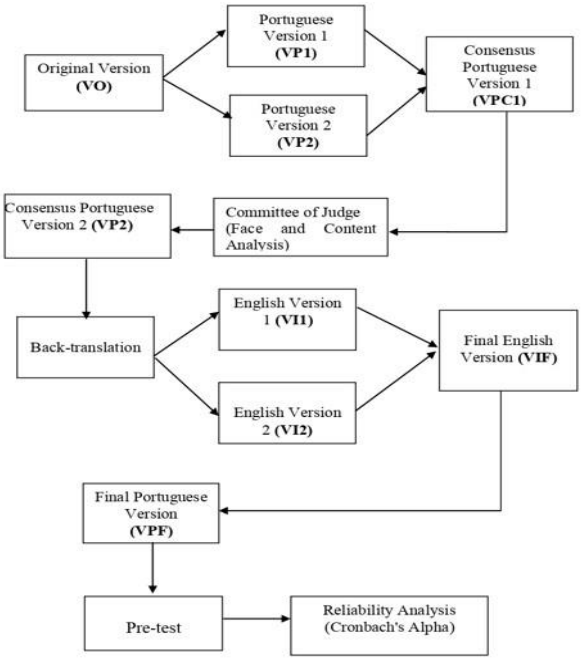

Figura 1. Flowchart of the cultural adaptation process indicating the stages of translation of the original version, evaluation by a committee of judges, back-translation, and pre-test.

Participants

The study included the following participants: 1) Members of the committee of judges – health professionals with experience in Mental Health and are bilingual, who carried out cultural, conceptual, semantic, and idiomatic equivalences between the Consensus Portuguese Version 1 (VPC1) and the Original Version (VO) of the OMS-HC; and 2) Health professionals from PHC services in the city of Ribeirão Preto (SP), who participated in the pre-test phase, answering the Final Portuguese Version (VPF) of the OMS-HC.

The selection criteria for participants in the pre-test step were: health professionals from PHC services (nurses, nursing assistants, and technicians, dentists, dental assistants, pharmacists, pharmacy assistants, and doctors) in the city of Ribeirão Preto (SP) who were available at the time of approach. Therefore, for the cultural adaptation of the OMS-HC in Brazil, the diversity of professionals was considered according to the characteristics of the Health Units that participated.

Sampling process and sample size

The Final Portuguese Version (VPF) was applied to a sample of 40 health professionals in seven health units, three UBSs, and four USFs. The sample corresponded to 20% of the number established for the final sample (200 health professionals) (Pasquali, 2012).

Data collection

- Translation

The Original Version (VO) of the OMS-HC was translated into Portuguese by a Brazilian who teaches English classes (translator without knowledge of the objectives of the study) and by one of the researchers of the present study (a translator with knowledge of the objectives of the study) (Guillemin et al., 1993). The two translations originated from Portuguese Version 1 (VP1) and Portuguese Version 2 (VP2), respectively. With both versions in Portuguese, the researcher met with the research team to select the best phrases and thus the Consensus Portuguese Version 1 (VPC1) was obtained.

- Committee of judges

There was a comparison between the original and the adapted versions to certify equivalence, clarity, understanding, time of application, language, and applicability of the scale. Bilingual people or a sample of the target population invited 30 to 40 participants via email to participate in the assessment of each item. Once they agreed to participate, the Free and Informed Consent Form was sent to be signed by the participants. Seven judges were selected including two nurses,a psychologist, a doctor, a social worker, a nutritionist, and an occupational therapist, all with backgrounds in mental health and teaching.

- Back-translation

To carry out the back-translation of the VPC2 of the OMS-HC, two translators born in Canada and with knowledge of the Portuguese language carried out the translations from Portuguese into English individually. Thus, English Version 1 (VI1) and English Version 2 (VI2) (Guillemin et al., 1993) were obtained. Subsequently, the back-translations were compared to each other in a meeting with the research team, in which they arrived at the Final English Version (VIF). Dr. Scott Patten, author of the OMS-HC, received the Final English Version by email; he assessed it using an adapted instrument and agreed, expressing his approval to continue the research.

- Pre-test

The pre-test technique certifies the equivalence of the original and final version, with a sample of the population responding to the questionnaire in order to check for errors and deviations in the translation. In the present study, the pre-test was carried out with different categories of health professionals from PHC services. Thus, the Final Portuguese Version (VPF) was applied to a sample of 40 health professionals (nurses, nursing assistants and technicians, dentists, dental assistants, pharmacists, pharmacy assistants, and doctors in seven health units, including three UBSs and four USFs.

Instruments

The final instrument was developed into two parts. The first part refers to socio-demographic characteristics (gender, age, education, training time, specialty, time of professional experience, occupation and length of experience in the Health Unit, and start and end time of application). The second part consists of the adapted version of the OMS-HC (VPF) containing the 20 items (Figure 2 – adapted instrument).

Escala Opening Minds para Profissionais da Saúde

	Discordo plenamente	Discordo	Não concordo nem discordo	Concordo	Concordo plenamente
1. Eu me sinto mais confortável ao ajudar uma pessoa com doença física do que ao ajudar uma pessoa com um transtorno mental.	☐	☐	☐	☐	☐
2. Se uma pessoa com transtorno mental reclama de sintomas físicos (ex.: náusea, dor nas costas ou dor de cabeça), eu provavelmente os atribuiria ao transtorno mental.	☐	☐	☐	☐	☐
3. Se um colega com quem eu trabalho me dissesse que possui um transtorno mental sob controle, eu me sentiria disposto a trabalhar com ele/ ela da mesma forma.	☐	☐	☐	☐	☐
4. Se eu estivesse em tratamento para um transtorno mental, eu não revelaria a nenhum dos meus colegas.	☐	☐	☐	☐	☐
5. Eu estaria mais propenso a buscar ajuda para um transtorno mental se o profissional de saúde que fosse me tratar não estivesse ligado ao meu local de trabalho.	☐	☐	☐	☐	☐
6. Eu me consideraria fraco se eu tivesse um transtorno mental que eu mesmo não pudesse lidar.	☐	☐	☐	☐	☐
7. Eu relutaria em buscar ajuda se eu tivesse um transtorno mental.	☐	☐	☐	☐	☐
8. Empregadores deveriam contratar uma pessoa com um transtorno mental controlado caso ela/ ele seja a melhor pessoa para o trabalho.	☐	☐	☐	☐	☐
9. Eu iria a um médico mesmo sabendo que ele já foi tratado de um transtorno mental.	☐	☐	☐	☐	☐
10. Se eu tivesse um transtorno mental eu contaria para meus amigos.	☐	☐	☐	☐	☐
11. É responsabilidade dos profissionais de saúde inspirar esperança em pessoas com transtorno mental.	☐	☐	☐	☐	☐
12. Apesar de minhas crenças profissionais, eu tenho reações negativas com relação às pessoas que têm transtorno mental.	☐	☐	☐	☐	☐
13. Há pouco que eu possa fazer para ajudar pessoas com transtorno mental.	☐	☐	☐	☐	☐
14. Mais da metade das pessoas com transtorno mental não se esforça o suficiente para melhorar.	☐	☐	☐	☐	☐
15. Pessoas com transtorno mental raramente oferecem risco à outras pessoas.	☐	☐	☐	☐	☐
16. O melhor tratamento para transtorno mental é a medicação.	☐	☐	☐	☐	☐
17. Eu não gostaria que uma pessoa com um transtorno mental trabalhasse com crianças, mesmo que o transtorno estivesse apropriadamente controlado.	☐	☐	☐	☐	☐
18. Profissionais de saúde não precisam ser defensores de pessoas com transtorno mental.	☐	☐	☐	☐	☐
19. Eu não me importaria se uma pessoa com um transtorno mental morasse ao lado da minha casa.	☐	☐	☐	☐	☐
20. Eu tenho dificuldade em sentir compaixão por uma pessoa com transtorno mental.	☐	☐	☐	☐	☐

Figure 2. Adapted version of the OMS-HC (VPF).

The development of the original OMS-HC, in Canada started with the creation of a set of items related to the dimensions of stigma, based on existing scales, as well as the creation of new items. Initially, 50 items were prepared, which went through five assessments and selections conducted through consultations with specialists, interviews, a focus groups of health professionals and people with mental illness, and feedback to improve the scale. It is noteworthy that several concepts were explored in the assessments, such as the use of the term 'mental illness' as opposed to a specific diagnosis of mental illness, the definition of mental illness, the definition of recovery, the bias of social desirability, and the relevance of the items according to health professionals. Changes to the final scale were made as members of the focus group suggested changes regarding certain concepts, after which they gave a 50% agreement. These changes resulted in the final scale of 20 items (Kassam et al., 2012).

Factor analysis of the scale data was carried out with 787 health professionals from different provinces in Canada. The items were analyzed and Cronbach's alpha was calculated to determine the general consistency of the scale. The item-total correlations were calculated in tandem with factor analysis of the items. Items that did not correlate strongly with the total score were eliminated for factor analysis (six of the 20 items had a correlation less than 0.2). Factor analysis was conducted using principal component analysis. The methods used for the retention factors were to keep the factors that had Eigen values above 1.0 and had more than four items loaded in a single factor. The factor analysis resulted in a two-factor solution (attitude factor towards people with mental illness and mental illness disclosure/exposure factor) for 12 items. The score of health professionals' attitudes towards people with mental illness can vary from 7 (least stigmatizing) to 35 (most stigmatizing), while the score for health professionals' attitudes towards the disclosure of mental illness can vary from 5 (least stigmatizing) to 25 (most stigmatizing) (Kassam et al., 2012).

Data analysis

For the assessment by the committee of judges, an instrument containing the items of VO and VPC1 was sent to each member. This instrument requested the assessment of semantic and idiomatic equivalences. Along with the instrument, an orientation was given asking the judges to mark -1 if the Portuguese version was not equivalent to English, 0 if undecided, and +1 if the version was equivalent to English. After all members of the committee of judges submitted their OMS-HC equivalence assessment instruments, the researcher met with the research team to review the assessments. The changes were accepted when they reached 80% or more of agreement. At the end of this process, the Consensus Portuguese Version 2 was obtained.

The data collected in the pre-test received double typing in an Excel spreadsheet and were inserted in the Statistical Package for the Social Sciences (SPSS) version 21.0 for Windows. Descriptive analyses of simple frequency were performed for categorical variables and measures of central tendency (mean and median) and variability (standard deviation) for continuous variables. The scale's reliability in the pre-test sample, assessed according to the internal consistency of the items, was measured by Cronbach's alpha coefficient.

Ethical aspects

The study was approved by the Ribeirão Preto Municipal Health Department and by the Research Ethics Committee of the Ribeirão Preto School of Nursing of the University of São Paulo (EERP-USP) under number 2.523.377 (CAAE: 82490918.8.0000.5393).

Results

OMS-HC translation into brazilian portuguese

The OMS-HC translation process was carried out according to the schematic in Figure 1. After the two translated versions were obtained, the research team met to assess the terms used in each item. The translations had some variations due to the individual characteristics of the translators. Translator 1 did not know the objectives of the study and was not familiar with the theme of Mental Health. Translator 2 knew the objectives of the study and was familiar with the theme. Thus, the team analyzed more specific terms of mental health, as well as the consistency of the verbs used. The variations were simple, with changes in prepositions and verbs, and the consensus version in Portuguese was obtained. The items with variations that resulted in deeper discussions and analysis by the research team are described below. The main changes are shown in the Table 1.

In item 1, translator 1 translated 'person who has a physical illness'as '*pessoa portadora de deficiência física*'(person who carries a physical disability). Initially, translation 2 was chosen, '*pessoas com deficiências físicas*'(people with physical disabilities), as the term used by the translator 1 '*portador*' (carrier) is not recommended, given that the expression can distance people from social inclusion. The most appropriate in Portuguese is to use a noun followed by the preposition '*com*'(with) plus the adjective referring to the specific situation, as in '*pessoa com deficiência física*'(person with physical disability), '*pessoa com transtorno mental*'(person with mental illness), etc. However, in the analysis of the research team, the term considered most faithful to the Original Version of the OMS-HC was '*pessoa com doença física*' (person with physical illness), because the English expression referred to an organic disease, not a disability.

Translator 1 translated the term '*people with mental illness*'in items 11, 12, 13, 18, and 20 as '*pessoas que possuem transtornos mentais*'(people who have mental illnesses).Translation 2, '*pessoas com transtornos mentais*'(people with mental illnesses) was chosen. However, to achieve a consensus Portuguese version, the research team considered '*pessoas com transtorno mental*'(people with mental illness)in the items mentioned above.

In item 11, the term '*inspirar esperança*'(inspire hope) provoked the discussion as to whether the expression is part of the Brazilian context. The team opted to keep the term and wait for the assessments of the committee of judges. In item 18, translation 2 revealed the term '*trabalhadores de saúde*'(health workers)and '*lutar pelos direitos*'(fight for rights), however, the research team opted for '*profissionais de saúde*'(health professionals)and identified that the expression '*lutar pelos direitos*'(fight for rights) was an unnecessary addition to the item.

Table 1. Modifications to OMS-HC translations.

Portuguese Version1 (VP1)	Portuguese Version 2 (VP2)	Consensus Portuguese Version 1 (VPC1)
1. Eu me sinto mais confortável ao ajudar uma pessoa portadora de deficiência físicaao invés de ajudar uma pessoa que possuaum transtorno mental.	*1. Eu me sinto mais confortável em ajudar pessoas com deficiências físicasdo quepessoas comalgum transtorno mental.*	*1. Eu me sinto mais confortável ao ajudar uma pessoa com* ***doença física*** *ao invés de ajudar uma pessoa com um transtorno mental.*
11. É responsabilidade dos profissionais de saúde inspirar esperança naqueles que possuem transtornos mentais.	*11. É responsabilidade dos profissionais de saúde encorajar a esperança em pessoas com transtornos mentais.*	*11. É responsabilidade dos profissionais de saúde* ***inspirar esperança*** *em* ***pessoas com transtorno mental.***
12. Apesar de minhas crenças profissionais, eu reajo negativamentediante de pessoas que possuem transtornos mentais.	*12. Apesar de minhas crenças profissionais, eu tenho reações negativascom relação à pessoas com transtornos mentais.*	*12. Apesar de minhas crenças profissionais, eu* ***tenho reações negativas com relação à pessoas que têm transtorno mental.***
13. Não há muito que eu possa fazerpara ajudar pessoas que possuam transtornos mentais.	*13. Eu posso fazer muito poucopara as pessoas com transtornos mentais.*	*13.* ***Eu posso fazer pouco para ajudar pessoas com transtorno mental.***
18. Profissionais da saúde não precisam ser defensores de pessoas que possuam transtornos mentais.	*18. Trabalhadores de saúde não precisam "advogar" ou lutar pelos direitos de pessoas com transtornos mentais.*	*18.* ***Profissionais de saúde não precisam ser defensores de pessoas com transtorno mental.***
20. Eu me esforço para sentir compaixão por uma pessoa que possua algum transtorno mental.	*20. Eu tenho dificuldade em sentir compaixão por pessoas com transtornos mentais.*	*20.* ***Eu tenho dificuldade em sentir*** *compaixão por* ***uma pessoa com transtorno mental.***

Source: Authors' own elaboration.

Assessment of the committee of judges

The proposal by Ferrer et al. (1996), who recommends that the step of the committee of judges should be applied before back-translation to enable the identification of errors and/or difficulties in understanding that would be limiting to later steps. Thus, the Consensus Portuguese Version 1 (VPC1), sent to seven bilingual health professionals with experience in mental health, underwent modifications for greater reliability in relation to the Original Version (VO) of the OMS-HC. The changes, in general, were punctual and related to the replacement of certain words by other synonyms for better adaptation. The main changes are shown in Table 2.

Table 2. Modifications suggested by the Committee of Judges for Consensus Portuguese Version 2.

Consensus Portuguese Version 1 (VPC1)	Consensus Portuguese Version 2 (VPC2)
1. Eu me sinto mais confortável ao ajudar uma pessoa com doença física ao invés de ajudar uma pessoa com um transtorno mental.	*1. Eu me sinto mais confortável ao ajudar uma pessoa com doença física* ***do que ao ajudar*** *uma pessoa com um transtorno mental.*
2. Se uma pessoa com transtorno mental reclama de sintomas físicos (ex.: náusea, dor nas costas ou dor de cabeça), eu geralmente os atribuo ao transtorno mental	*2. Se uma pessoa com transtorno mental reclama de sintomas físicos (ex.: náusea, dor nas costas ou dor de cabeça),* ***eu provavelmente os atribuiria*** *ao transtorno mental.*
4. Se eu estivesse em tratamento para um transtorno mental, eu não revelaria aos colegas com quem eu trabalho.	*4. Se eu estivesse em tratamento para um transtorno mental, eu não revelaria* ***a nenhum dos meus colegas.***
6. Eu me consideraria fraco se eu tivesse um transtorno mental que eu mesmo não pudesse curar.	*6. Eu me consideraria fraco se eu tivesse um transtorno mental que eu mesmo não pudesse* ***lidar.***
8. Empregadores deveriam contratar uma pessoa com um transtorno mental sob controle caso esta seja a melhor pessoa para o trabalho.	*8. Empregadores deveriam contratar uma pessoa com um transtorno mental* ***controlado*** *caso* ***ela/ele*** *seja a melhor pessoa para o trabalho.*
9. Eu iria a um médico mesmo que este já tenha sido tratado de um transtorno mental.	*9. Eu iria a um médico mesmo* ***sabendo que ele já foi*** *tratado de um transtorno mental.*
13. Eu posso fazer pouco para ajudar pessoas com transtorno mental.	*13.* ***Há pouco que eu possa fazer*** *para ajudar pessoas com transtorno mental.*
15. Pessoas com transtorno mental raramente oferecem risco ao público.	*15. Pessoas com transtorno mental raramente oferecem risco* ***à outras pessoas.***

Source: Authors' own elaboration.

Of the 20 items, eight have been changed due to the agreement of 80% among the judges. In Item 1 there was an agreement to replace '*ao invés de ajudar*'(instead of helping)with '*do que ajudar*'(than helping). Item 2 received the suggestion to change '*eu geralmente os atribuo*'(I usually assign them*)* to '*eu provavelmente os atribuiria*'(I would probably assign them). In Item 4, the English term 'colleagues'was understood as '*colegas*',without relating to people in the workplace. Item 6 '*Eu me consideraria fraco se eu tivesse um transtorno mental que eu mesmo não pudesse curar'* (I would consider myself weak if I had a mental illness that I could not heal) received the suggestion to replace the verb '*curar*'(heal) to '*lidar*'(deal with), as many mental illnesses have no cure, leading to the understanding, in the mental health field, that people start to live and deal with the mental illness without ever being cured of the illness itself.

In item 8, '*sob controle*'(under control)and '*esta*'(this)were replaced by '*controlado*' (controlled*)* and '*ele/ela*' (he/she), respectively. Item 13 was better understood by the judges by '*Há pouco que eu possa fazer*'(There is little I can do)than by '*Eu posso fazer pouco*'(I can do little). With regard to item 15, '*Pessoas com transtorno mental raramente oferecem risco ao público*'(People with mental illness rarely pose a risk to the public) there was a questioning by the judges regarding the term '*ao público*'(to the public) as not being an adequate expression. Thus, it was replaced by '*à outras pessoas*'(to other people).

Comparison of the final english version with the original version sent to the author

The back-translation process of the Consensus Portuguese Version 2 (VPC2) carried out by two Canadians with knowledge of the Portuguese language led to the Final English Version (VIF) with minor changes. Both translators found the scale understandable and easy to translate. English Version 1 (VI1) used the term 'mental disorder', however the term 'mental illness' was chosen in the end based on scientific research articles and references from the original scale, which is present in English Version 2 (VI2). Likewise, the term 'health care provider' was chosen instead of 'health professional'. The Final English Version (VIF) was emailed to the author, Dr. Scott Patten. When responding with approval, he commented that the translation was reliable at the original scale. The main changes are shown in Table 3.

Table 3. Modifications and comparisons of the versions in the Back-translation

English Version 1 (VI1)	English Version 2 (VI2)	Final English Version (VIF)
1. I feel more comfortable helping a person with a physical illness than helping a person with a mental disorder.	1. I am more comfortable helping a person who has a physical illness than I am helping a person with a mental illness.	1. **I am more** comfortable helping a person **who has** a physical illness than I am helping a person with a **mental illness.**
2. If a person with a mental disorder complains about physical symptoms (e.g. nausea, back pain or headache), I will likely attribute them to the mental disorder.	2. If a person with a mental illness complains of physical symptoms (eg, nausea, back pain or headache), I would likely attribute this to their mental illness.	2. If a person with a **mental illness** complains of physical symptoms (eg, nausea, back pain or headache), **I would** likely attribute this to their **mental illness.**
3. If a coworker tells me that he or she has a mental disorder that is under control, I would feel fine about continuing to work with him or her.	3. If a colleague with whom I work told me that they have a managed mental illness, I would be as willing to work with him/her.	3. **If a colleague with whom I work told me that they have a managed mental illness, I would be as willing to work with him/her.**
4. If I were undergoing treatment for a mental disorder, I would not reveal this to any of my coworkers.	4. If I were under treatment for a mental illness, I would not disclose this to any of my colleagues.	4. If I were **under** treatment for a **mental illness**, I would not disclose this to any of my **colleagues**.
5. I would be more likely to seek help for a mental disorder if the health professional who was treating me was not connectedin anyway to my workplace.	5. I would be more inclined to seek help for a mental illness if my treating health care provider was not associatedwith my workplace.	5. I would be more **inclined** to seek help for a **mental illness** if **my treating health care provider** was not **associated with** my workplace.

Source:Authors' own elaboration.

Application of the final portuguese version to PHC health professionals (Pre-test)

The pre-test was carried out with 40 health professionals, 32 (80%) of which were female and 8 (20%) were male, with an average age of 43.6 years (SD=9.1; range of 27, 4-61.9 years). The average professional training time was 16.5 years (SD = 9.2; range 3-35 years) and, in relation to specialty, of the 40 health professionals, 21 (52.5%) had a specialist degree and 19 (47.5%) did not. The average time of professional experience was 18.2 years (SD = 9.95; range 3-40 years). There was a prevalence of nursing professionals (nurses, nursing assistants, and technicians), (65%).

Of the PHC Units, the USFs were the majority (62.5%). In this sense, the prevalence of occupation of the professionals in the Units was of Nursing Assistants and Technicians (37.5%), followed by Nurses (15%). The average length of time in the Health Unit was 5.2 years (SD = 7.2; range 0-30 years). The time of application of the scale was, for 82.5% of health professionals, from 4 to 10 minutes. The data are presented in Table 4.

After the health professionals answered the scale, they were asked about the applicability and understandability of the items. Some (n=9) reported that the scale is very 'generalized', because the term 'mental illness', without specification, covers different experiences in mental health. As an example, there was a report that the responses would be different if the mental illness was specified as 'depression' or as 'schizophrenia'.

Five professionals shared that this type of scale (Likert) sometimes causes confusion when checking, but that this would not interfere with the understandability of the items. In addition, they reported that the scale provides reflection on their own attitudes towards mental illnesses and people with mental illness.

Table 4. Socio-demographic characterization of health professionals from Primary Care Units (n=40), Ribeirão Preto 2018.

Characteristics of Study Participants	% of respondents n=40
Gender	
Female	80
Male	20
Age	
27-39 years	37.5
40-49 years	32.5
50 years or more	30
Training	
Nursing	30
Nursing Assistant/Technician	35
Dentistry	5
Dental Assistant/Technician	5
Medicine	15
Pharmacy	7.5
Other	2.5
Training time	
3-9 years	27.5
10-19 years	37.5
20 years or more	35
Specialty	
Yes	52.5
Not	47.5
Time of Professional Experience	
3-9 years	20
10-19 years	37.5
20 years or more	42.5

Source:Authors' own elaboration.

The pre-test was also essential to analyzing the application of the socio-demographic questionnaire. During data analysis, the need to include items about health professionals' experiences with mental illness was perceived, such as: 'Do you have any friends or family members with mental illness?'; 'Have you ever taken care of someone with a mental illness?'. Thus, the questionnaire is to be modified for subsequent application to 200 professionals and assessment of psychometric properties for complete validation. These additions will be important for future investigations and assessments, due to the relevance of variables such as experience, level of education/training, and social contact for the identification and understanding of the stigma of health professionals in relation to people with mental illness.

The pre-test of the present study was carried out following the recommendation of Guillemin et al. (1993), that the target population, as the option most used methodologically, responds to the scale and is later questioned about the items and the measure in general. Therefore, for the 40 health professionals who responded to the adapted version of the OMS-HC for use in Brazil, the scale was considered understandable and applicable. With this sample, Cronbach's alpha values were calculated by the two subscales presented (health professionals' attitudes towards people with mental illness and health professionals' attitudes towards the disclosure of or exposure to a mental illness), following the original and Italian versions, and the results obtained in the pre-test were 0.57 and 0.71, respectively. The total alpha value was 0.74, demonstrating satisfactory internal consistency for this sample with the target population.

Discussion

This study aimed to culturally adapt a Canadian scale that seeks to measure stigmatizing attitudes of health professionals towards people with mental illness in Brazil, the OMS-HC (Kassam et al., 2012). No specific scale for measuring stigma in health professionals with regard to people with mental illness had been developed in Canada. Thus, OMS-HC was developed and tested with 787 health professionals from Canada to assess anti-stigma interventions in groups of health professionals. The development of the scale was guided by the tripartite model of stigma, resulting from literature reviews focused on stigma and on how attitudes towards people with mental illness could be measured. The tripartite model was adopted, as it allows the measurement of clear results, such as attitudes that can be measured using various dimensions of stigma (Kassam et al., 2012).

In the focus groups for the development of the original OMS-HC, the main topics of discussion were around whether or not to use and define the term 'mental illness', as well as whether to include a specific diagnosis or specify the severity of the mental illness. As there was no consensus, the scale was maintained with the term 'mental illness' without definitions and specifications (Kassam et al., 2012).

Another issue that emerged in the focus group with people with mental illness (original OMS-HC) was the inclusion of an item that addressed medication as the best treatment for people with mental illness from the perspective of health professionals. This suggestion occurred because members of the focus group reported feeling stigmatized by health professionals, as they saw them more likely to over-medicate patients and less likely to listen to patients or provide other forms of therapy. The use of medication was also perceived as a means of increasing social distancing (Kassam et al., 2012).

In the original OMS-HC, the factor analysis identified two subscales that mediated attitudes towards people with mental illness, using various dimensions of stigma and attitudes towards disclosing a mental illness and/or seeking help. The idea was adopted that stigmatizing attitudes can be measured in the form of disclosing whether someone has a mental illness and/or is looking for help, as this reaction can also be an indicator of stigma related to mental illness (Hocking, 2003; Kassam, Glozier, Leese, Henderson, & Thornicroft 2010). On the other hand, the disclosure of a mental illness may not be associated with something shameful and, therefore, attitudes may be less stigmatizing towards other people. Thus, the factor analysis resulted in a subscale of seven items to measure attitudes towards people with mental illness and another of five items to measure attitudes of disclosure of or exposure to a mental illness (Kassam et al., 2012).

Destrebecque et al. (2017) validated the OMS-HC in Italy to obtain an Italian version of the scale and to investigate stigma among students in the health field. Therefore, a multicenter, observational, and cross-sectional study was conducted with a sample of students from the Nursing, Physiotherapy, Occupational Therapy, and Nutrition courses at the University of Milan. 561 students participated in the study (80.6% of the total number of students of all courses), 191 nursing students (97.9%), 260 physiotherapy students (75.4%), 55 occupational therapy students (83%), and 55 nutrition students (61%).

Cronbach's alpha values for the OMS-HC (Cronbach's alpha values for the OMS-HC (Italian version) in the two subscales of the 12-item version were 0.74 and 0.86, respectively. In general, the scale showed satisfactory internal consistency with values similar or even better than those obtained by the authors. The Italian version of the OMS-HC revealed favorable psychometric characteristics. The structure of the original scale was maintained in the Italian translation, with satisfactory internal consistency. The Italian version supported the original version consisting of two subscales (attitudes of health professionals towards people with mental illness and attitudes of health professionals towards the disclosure of or exposure to a mental illness) with 12 items. The scale was tested on a sample of 561 students in the health field and the response rate was high and thus important factors for assessing the characteristics of the Italian OMS-HC in people with different educational backgrounds and experiences (Destrebecque et al., 2017).

In the present study, the OMS-HC cultural adaptation process was developed based on the methodology proposed by Guillemin et al. (1993) and Ferrer et al. (1996). The assessment step of the committee of judges carried out before back-translation, as recommended by Ferrer et al. (1996), was important for a careful analysis of the translations of each item, to obtain the necessary modifications and the maintenance of the semantic, idiomatic, cultural, and conceptual equivalences between the original version of the OMS-HC and the adapted version. This method was also used in the validation process of the Italian version of the OMS-HC and has been followed in other validations in Brazil (Eschevarría-Guanilo, Rossi, Dantas, & Santos, 2006; Ferreira, Dantas, Rossi, & Ciol, 2008; Dantas, Silva, & Ciol, 2012).

The process of translating and culturally adapting scales is important for comparing studies from different countries as it enables a better understanding and grasp of the dimension of the phenomena assessed (Falcão, Cicinelli, & Ferraz, 2003). However, the quality of the scale is not guaranteed only by the linguistic translation of the items, as cultural adaptation is necessary to preserve the conceptual meaning of the scale. The translation and cultural adaptation of a scale requires specific methodology, maintaining the sense and quality of the original scale, reducing the chances of biased translations (Beaton,Bombardier, Guillemin, & Ferraz, 2000).

In the pre-test step of the adapted version of the OMS-HC for use in Brazil, health professionals, after answering the scale, addressed the same question related to the specification and/or severity of the mental illness that was discussed in the focus groups during development the original scale. The report that the term 'mental illness' is very broad and even subjective leads us to understand that the differentiation of mental illnesses on a scale that seeks to measure the stigma of health professionals may be a form of not dealing

directly with the presence of stigmatizing attitudes, or even intensifying stigmatizing attitudes in relation to certain mental illnesses.

However, it should be noted that the objective of the present study was to culturally adapt the OMS-HC for use in Brazil and, therefore, the values corresponding to the pre-test of the study were not deeply analyzed and compared with the values of the original and Italian versions. Thus, considering that the cultural adaptation process is not sufficient for a scale to be used in a given context (Pasquali, 2009), the assessment of the psychometric properties of the Brazilian OMS-HC will be carried out with 200 PHC health professionals in the city of Ribeirão Preto in a future subsequent investigation.

Conclusion

It is considered that the Brazilian version of the OMS-HC maintained semantic, cultural, idiomatic and conceptual equivalences through the translation process, the face and content validity performed by a committee of judges, and the back-translation process. In addition, the adapted version presents language appropriate to the Brazilian context, is easy to apply, and has a format suitable for use with appropriate understandability and consistency in relation to the original version. The Brazilian version of the OMS-HC is appropriate for the development of a study for the assessment of psychometric properties and validation.

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