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Tools for assessing nurses' stigmatizing attitudes toward individuals with mental illness

Narzędzia do oceny postaw stygmatyzujących pielęgniarek wobec osób z chorobami psychicznymi

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A – Development of the concept and methodology of the study/Opracowanie koncepcji i metodologii badań; B – Query - a review and analysis of the literature/Kwerenda – przegląd i analiza literatury przedmiotu; C – Submission of the application to the appropriate Bioethics Committee/Złożenie wniosku do właściwej Komisji Biotycznej; D – Collection of research material/Gromadzenie materiału badawczego; E – Analysis of the research material/Analiza materiału badawczego; F – Preparation of draft version of manuscript/Przygotowanie roboczej wersji artykułu; G – Critical analysis of manuscript draft version/Analiza krytyczna roboczej wersji artykułu; H – Statistical analysis of the research material/Analiza statystyczna materiału badawczego; I – Interpretation of the performed statistical analysis/Interpretacja dokonanej analizy statystycznej; K – Technical preparation of manuscript in accordance with the journal regulations/Opracowanie techniczne artykułu zgodne z regulaminem czasopisma; L – Supervision of the research and preparation of the manuscript/Nadzór nad przebiegiem badań i przygotowaniem artykułu

STRESZCZENIE

NARZĘDZIA DO OCENY POSTAW STYGMATYZUJĄCYCH PIELĘGNIAREK WOBEC OSÓB Z CHOROBAMI PSYCHICZNYMI

Cel pracy. Dokonanie przeglądu aktualnych i wiarygodnych narzędzi służących do pomiaru stygmatyzujących postaw pielęgniarek wobec osób chorych psychicznie oraz porównanie tych narzędzi z ich charakterystyką psychometryczną i zastosowaniem w praktyce pielęgniarskiej klinicznej.

Materiał i metody. Wykorzystano licencjonowane bazy danych: MEDLINE (PubMed), Scopus i EBSCO (2000-2023). Do przeglądu narracyjnego włączono odpowiednie badania pobrane z trzech baz danych. Przegląd prowadzono zgodnie z listą kontrolną PRISMA.

Wyniki. Łącznie zidentyfikowano 171 badań mających na celu pomiar stygmatyzujących postaw pielęgniarek wobec osób chorych psychicznie. Na podstawie kryteriów wyboru do ostatecznej analizy włączono 12 badań. Do oceny stopnia stygmatyzacji wykorzystano następujące narzędzia: Community Attitudes towards the Mentally Ill, Opening Minds Scale for Healthcare Providers, Perceived Professional Stigma Scale, Attribution Questionnaire, Attitudes Towards Acute Mental Health Scale, Recovery Attitudes Questionnaire a Opinions about Mental Illness.

Wnioski. Wybrane narzędzia wykazały akceptowalne właściwości psychometryczne, w tym rzetelność i trafność, potwierdzając ich przydatność do oceny stygmatyzacji wśród pracowników służby zdrowia, zwłaszcza pielęgniarek. Jednak ich zastosowanie w różnych środowiskach społeczno-kulturowych wymaga dalszej weryfikacji trafności i rzetelności na reprezentatywnej próbie respondentów w danym środowisku.

Słowa kluczowe: piętno, pielęgniarki, osoba z chorobą psychiczną

ABSTRACT

TOOLS FOR ASSESSING NURSES' STIGMATIZING ATTITUDES TOWARD INDIVIDUALS WITH MENTAL ILLNESS

Aim. To provide an overview of valid and reliable tools designed to measure nurses' stigmatising attitudes toward individuals with mental illness, and to compare these tools based on their psychometric properties and applicability in clinical nursing practice.

Material and methods. Licensed databases were utilised, including MEDLINE (PubMed), Scopus, and EBSCO databases (2000-2023). Relevant studies retrieved from the three databases were included in the narrative review. Data evaluation followed the PRISMA checklist.

Results. A total of 171 studies focused on measuring nurses' stigmatising attitudes toward individuals with mental illness were identified. Based on selection criteria, 12 studies were included in the final analysis. The following tools were used to assess the level of stigmatisation: Community Attitudes towards the Mentally Ill, Opening Minds Scale for Healthcare Providers, Perceived Professional Stigma Scale, Attribution Questionnaire, Attitudes Towards Acute Mental Health Scale, Recovery Attitudes Questionnaire, and Opinions about Mental Illness.

Conclusions. The selected tools demonstrated acceptable psychometric properties, including reliability and validity, confirming their usefulness for assessing stigmatisation among healthcare professionals, particularly nurses. However, their application in different sociocultural contexts requires further validation and reliability testing on representative samples of respondents within those settings.

Key words: stigma, nurses, mental ill

INTRODUCTION

Stigmatisation represents a rejecting social attitude toward certain characteristics of an individual that may be perceived as psychiatric, physical, or social deficiencies. This attitude includes social disapproval, which can escalate into unwarranted discrimination and exclusion [1]. The stigma associated with mental illness is a significant public health issue as it prevents individuals from seeking professional help and disrupts treatment continuity. The negative effects of stigmatisation significantly reduce the quality of life of patients [2].

Modern psychiatric reform focuses on mitigating the stigma toward people with mental illnesses; however, prejudice persists even among healthcare professionals. Research shows that healthcare workers often perceive individuals with mental illness as incompetent, dangerous, or violent [3]. Stigmatisation persists among healthcare workers, both consciously and unconsciously, despite being considered a violation of the Code of Ethics for Nurses by the International Council of Nurses. This code outlines the rules of conduct, ethical principles, and obligations of nurses across all areas of practice [4,5,6]. Nursing, in its essence, involves upholding human rights, including the right to dignity, respect, and non-discrimination, regardless of the age, race, culture, or socioeconomic status of patients [6].

Stigmatising attitudes reduce the quality of nursing care and can lead to patient isolation, misdiagnosis or exclusion from healthcare services [7]. Studies further highlight insufficient exploration of stigmatisation in specific populations, such as healthcare workers, students, or social care staff. This gap underscores the need for further research and a systematic approach to addressing this issue [5,8].

Stigmatisation negatively impacts not only patient care but also the working environment of nurses [9]. Negative attitudes of healthcare professionals toward mental illness can influence their coworkers. The study by Glozier et al. demonstrated that the return of healthcare staff to work after experiencing a mental illness often provokes negative attitudes from colleagues, leading to increased absenteeism among these workers. Stigmatisation adversely affects the working environment of nurses by increasing tension among colleagues, weakening teamwork, and creating a hostile atmosphere. This can result in higher turnover, absenteeism, and reduced work efficiency [10].

Given these challenges, it is essential to implement measures to reduce the stigmatisation of individuals with mental illnesses in healthcare settings. Accurate measurement of stigmatising attitudes and behaviors plays a key role in these efforts, as it enables the identification of problematic areas and the development of targeted interventions [11]. This review aims to identify tools used to measure nurses' stigmatising attitudes toward patients with mental illnesses.

AIM

The aim of the study was to provide an overview of tools designed to identify nurses' stigmatising attitudes towards patients with mental illnesses.

MATERIALS AND METHODS

This study was conducted in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) protocol [12], which facilitated a systematic approach to identifying tools for measuring nurses' stigmatising attitudes toward individuals with mental illnesses and assessing their psychometric properties. The key research questions were: What measurement tools are used to identify nurses' stigmatising attitudes toward patients with mental illnesses?

Research studies were retrieved from electronic databases using the following keywords: stigma/stigmatisation/prejudice/discrimination, nurses/nursing staff/nurse, towards/to, and mentally ill/psychiatric patients. Keywords were combined using Boolean operators AND and OR. Tools for measuring the degree of stigmatisation were searched in the electronic databases MEDLINE (via PubMed), Scopus, and EBSCO. These databases were selected based on their availability within the institution and their broad relevance to the topic. The search was restricted to studies in English, published between 2000 and 2023, and available in full text. Empirical articles utilising quantitative research methods and containing psychometric characteristics (reliability and validity) were included in the review. Studies thatthis information was missing, as well as editorials, review articles, protocols, case studies, and studies using self-designed tools, were excluded. Furthermore, studies with unclear identification of nurses in the sample, and reports evaluating stigmatisation attitudes towards a specific mental illness were also exluded.

A total of 171 records were retrieved: PubMed (n = 88), Scopus (n = 62), and EBSCO (n = 21). All retrieved articles were systematically included in the PRISMA diagram (Fig. 1).

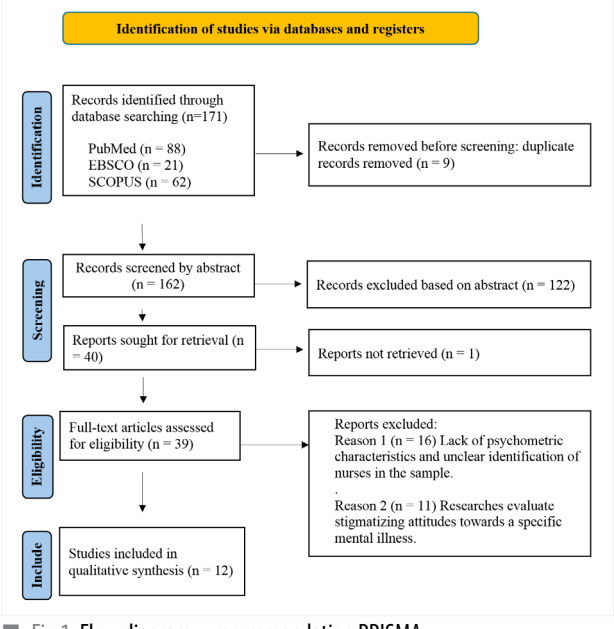

Fig 1. Flow diagram – recommendation PRISMA

A total of 171 studies were identified through searches in three databases: PubMed (n = 88), EBSCO (n = 21), and Scopus (n = 62). After removing duplicates (n = 9), 162 studies remained (n = 162). Based on abstract screening, 122 studies were excluded (n = 122), resulting in 40 studies (n = 40) selected for further analysis. Of these 40 studies, full texts could not be obtained for 1 study (n = 1), reducing the number of available full texts to 39 studies (n = 39). During this evaluation, 16 studies (n = 16) were excluded because they did not meet the inclusion criteria (lack of psychometric characteristics and unclear identification of nurses in the sample). Additionally, 11 studies (n = 11) were excluded because they focused on nurses' stigmatising attitudes toward specific mental illnesses. There were twelve studies (n = 12) that met all inclusion criteria were included in the final synthesis. All selected studies were thoroughly reviewed and analysed to identify appropriate tools for measuring nurses' stigmatising attitudes toward individuals with mental illnesses.

RESULTS

In line with the research question, seven tools measuring nurses' stigmatising attitudes toward individuals with mental illnesses were included in the final analysis, based on a total of 12 studies. An overview of these tools is presented in Tab. 1, which also specifies the number of studies that met the inclusion criteria for this review. Although the total number of included studies is 12, the table lists 14 studies. This discrepancy arises because some studies used more than one measurement tool to assess nurses' stigmatising attitudes toward individuals with mental illnesses. Since each tool is analysed separately, the number of study entries in the table appears higher. This approach ensures that each instrument's psychometric properties and applicability are evaluated independently while maintaining the correct total number of studies included in the review. In addition to their psychometric properties, the usability of these tools is crucial for practical application. Therefore, each tool's availability, copyright restrictions, estimated time for completion, and administration method were included in the analysis.

The most frequently used tool was the Community Attitudes towards the Mentally Ill (CAMI) (n = 6) [13,14,15,16,17,18]. It was followed by the Opening Minds Scale for Healthcare Providers (OMS-HC-15) (n = 3) [19,20,21]. The following tools were each used once: Attribution Questionnaire (AQ-27) (n = 1) [13], Opinions about Mental Illness (OMI) (n = 1) [22], Attitudes Towards Acute Mental Health Scale (ATAMH) (n = 1) [23], and the Perceived Professional Stigma Scale (PPPS) (n = 1) [24]. In the study by Ubaka et al. [17], the scale was referred to as CAMI-2, but it represents the original version of CAMI, also used in studies [14,15,16,18]. Similarly, Kolb et al. (2022) referred to OMS-HC but used the 15-item version OMS-HC-15, as in studies [19,20]. These inaccuracies highlight the importance of precise terminology for proper interpretation and comparability of results.

Studies measuring nurses' stigmatising attitudes toward individuals with mental illness were most commonly conducted in Italy (n = 4) [13,15,18,19], followed by the USA (n = 2) [21,24], Portugal (n = 2) [13,15], Spain (n = 1) [13], Kuwait (n = 1) [14], Brazil (n = 1) [16], Nigeria (n = 1) [17], Malaysia (n = 1) [20], Greece (n = 1) [22], Lithuania (n = 1) [15], Finland (n = 1) [15], the United Kingdom (n = 1) [23], Canada (n = 1) [24], France (n = 1) [24], Ireland (n = 1) [15], and Belgium (n = 1) [24]. Some studies covered multiple countries, broadening insights into stigmatization in various cultural and healthcare contexts [15,24].

Several studies used a single tool in isolation [14,15,16,17,18,20,23,24], while others employed scales to assess the level of stigmatization alongside additional scales [13,19,21,22]. For instance, Kolb et al. [21] used the

Tab. 1. Overview of tools measuring nurses' stigmatizing attitudes toward individuals with mental illnesses

Tool	Original authors/year/country	Aim	Areas of assessment	Evaluation description	Number of Studies *
CAMI	Taylor & Dear, 1981, USA	Assess attitudes towards mentally ill individuals	Authoritarianism, Benevolence, Social Restriction, Community Ideology	40 items; 5-point Likert scale; higher score = less stigma	6 studies
OMS-HC-15	Kassam et al., 2012, Canada	Measure changes in healthcare providers' attitudes	Attitudes, Help-Seeking, Social Distance	15 items; 5-point Likert scale; higher score = less stigma	3 studies
PPPS	Holman, 2015, USA	Assess professional stigma in workplace	Public Stigma, Treatment Stigma, Personal Stereotypes, Discrimination	23 items; 4-point Likert scale; higher score = more stigma	1 study
AQ-27	Corrigan et al., 2003, USA	Analyse attributions towards mentally ill individuals	Responsibility, Danger, Empathy, Fear, Coercion	27 items; 9-point Likert scale; higher score = more stigma	1 study
ATAMH	Munro & Baker, 2007, UK	Measure attitudes in acute psychiatric environments	Care vs. Control, Acute Care Context	33 items; mix of Likert and semantic differential scales	1 study
RAQ-7	Borkin et al., 2000, USA	Assess attitudes towards recovery processes	Recovery is Possible, Recovery Challenges	7 items; 5-point Likert scale; higher score = positive recovery attitude	1 study
OMI	Cohen & Struening, 1962, USA	Measure social attitudes towards mentally ill individuals	Social Discrimination, Integration, Authoritarianism	50 items; 6-point Likert scale; higher score = more stigma	1 study

CAMI - Community Attitudes towards the Mentally Ill, OMS-HC-15 - Opening Minds Scale for Healthcare Providers, Perceived PPPS-Professional Stigma Scale, AQ-27-Attribution Questionnaire, ATAMH - Attitudes Towards Acute Mental Health Scale, RAQ-7 - Recovery Attitudes Questionnaire, OMI - Opinions about Mental Illness

*Total number of included studies = 12. However, some studies used more than one instrument, resulting in a total of 14 study entries in the table.

OMS-HC-15 along with the Mental Health Knowledge Schedule (MAKS). The MAKS is a brief tool for assessing mental health knowledge related to stigma but is insufficient on its own and should be combined with other tools that assess attitudes and behaviors to provide more comprehensive results [25]. Fontesse et al. [24] used, together with the PPPS, also the Dehumanisation Scale developed by Haslam in 2006 [26], which focuses on the perception of patients in terms of emotions, rationality, and moral autonomy. Since it does not measure overall stigmatisation, it was not included in this review.

Most tools utilise Likert-type scales. CAMI [27], OMS-HC-15 [11], ATAMH [23], and RAQ-7 [26] use a 5-point scale. The OMI uses a 6-point scale [27], AQ-27 employs a 9-point scale [28], and the PPPS uses a 4-point Likert scale, combining four subdimensions for evaluation [24].

The tools have a long history and are based on various theoretical foundations. The Opinions on Mental Illness (OMI), developed by Cohen & Struening in the 1950s–60s, was one of the first scales for measuring stigma. The original version included 70 items and five factors: authoritarianism, benevolence, mental hygiene ideology, social restriction, and interpersonal etiology [27]. In the study by Arvanti et al., the Greek version of the OMI consisted of 51 items on a 6-point Likert scale and assessed five factors: social discrimination, social restriction, social care, social integration, and the etiology of mental illness. While the OMI is a reliable tool for measuring attitudes, it is not specifically tailored to healthcare settings [22]. The original OMI scale is widely used in research and freely available, as it was published without copyright restrictions. Some adaptations may have specific usage conditions. Completion takes approximately 15 minutes and can be self-administered or conducted by a researcher, making it suitable for various settings [27].

The original version of CAMI, developed by Taylor & Dear in 1981, was partly derived from the revised and updated OMI [27,29]. Although the CAMI was designed to predict public reactions to local services for individuals with severe mental disorders, its complexity also allowed for its use in healthcare settings. It contains 40 items assessed on a 5-point Likert scale. There are four subscales of the CAMI: authoritarianism, benevolence, social restriction, and community ideology, each containing 10 items. Subscale scores range from 10 to 50 points, with higher scores indicating less stigma toward individuals with mental illness. The tool is widely used in research and has been adapted to various cultural and linguistic contexts. The CAMI scale is freely available, but users should cite the original source and report any modifications made to the instrument. The estimated completion time is approximately 15 minutes. The scale can be self-administered or administered by a researcher in a structured interview [16, 29,30].

The AQ-27 by Corrigan et al. is based on attribution theory, which assumes that behavior is determined by cognitive-emotional processes [28]. The questionnaire includes a vignette about a man with schizophrenia and 27 items assessing responses to a hypothetical case. Each item is rated on a 9-point scale (1 = not at all, 9 = very much). The items are divided into nine factors (personal responsibility, anger, pity, help, dangerousness, fear, avoidance, coercion, empathy), with scores ranging from 3 to 27 points per factor. These factors include cognitive and emotional reactions that influence behaviors, such as providing help, avoidance, or the use of coercive measures. The questionnaire provides a comprehensive view of stigmatisation on an individual level and is widely used to analyse attitudes toward individuals with mental illness [31]. While it has been widely used in the general population [32,33], its use among mental health professionals has been less frequent [34]. The AQ-27 is freely available and can be used without licensing restrictions. However, researchers should cite the original source and acknowledge any modifications. Completion takes approximately seven minutes, and the scale can be self-administered or conducted by a researcher, making it suitable for various settings [28].

The PPPS, used by Fontesse et al. [24] and originally developed by Holman, measures professional stigma in the healthcare workplace. It consists of 23 items divided into four dimensions: perceived public stigma, perceived treatment stigma, personal stereotypical stigma, and personal discriminatory stigma. Each item is rated on a 4-point Likert scale, where higher scores indicate greater stigma. The PPPS is not freely available and requires permission from the original author. Completion takes approximately eight minutes, and the scale is self-administered, allowing for independent participant completion [24].

The RAQ-7 firstly published by Borkin et al. in 2000 was developed in collaboration with experts, individuals with mental illness, family members, and others [35]. The original version included 21 items, which were reduced to 7 items based on factor analysis. These items address two factors: "Recovery is possible and requires belief" and "Recovery is difficult and varies among individuals." The questionnaire uses a 5-point Likert scale (1 = "strongly disagree" to 5 = "strongly agree"), with higher scores indicating more positive attitudes toward recovery. The total score ranges from 5 to 35 points. The tool is suitable for assessing attitudes toward the recovery process from psychiatric disorders [26]. The RAQ-7 is a copyright-free measure and can be used without licensing restrictions. However, users should properly cite the original source when employing the scale in research. The estimated completion time is approximately four minutes, making it a brief and practical measure. The scale is self-administered, allowing for independent completion by participants [35].

The OMS-HC-15 introduced by Kassam et al. in 2012 was specifically developed for healthcare providers, including nurses, and focuses on changes in attitudes within healthcare settings, making it suitable for longitudinal studies. The original 20-item version was tested on a sample of 787 Canadian healthcare providers, including 17.5% nurses and nursing students, and underwent revision to address underrepresentation of physicians and nurses [11]. The revision included the dimension of social distance, that is crucial for capturing behavioral discrimination, leading to the creation of the 15-item version, OMS-HC-15 [36]. This version includes three scales: attitudes, help-seeking, and social distance, and uses

a 5-point Likert scale (15 = least stigmatizing attitude, 75 = most stigmatizing attitude). The OMS-HC-15 is generally accessible for academic use, but researchers should seek permission from the original authors or the Mental Health Commission of Canada before implementation. The estimated completion time is approximately 5 minutes, making it a brief and practical measure. The scale can be self-administered or administered by a researcher, making it adaptable for various research settings [11, 36].

The ATAMH developed by Munro & Baker in 2007, is designed to measure attitudes of healthcare providers in acute psychiatric settings. The scale was inspired by previous tools developed by Hill & Bale (1980), Burra et al. (1982), Singh et al. (1998), and Read & Law (1999). The ATAMH consists of 33 items, using a mix of Likert scales and semantic differentials, allowing for a nuanced assessment of attitudes. It focuses on two primary dimensions: Care vs. Control, Acute Care Context. The total score reflects the respondent's attitude towards acute psychiatric care. Higher scores indicate a more care-oriented and supportive approach, whereas lower scores suggest a more controlling or restrictive attitude. The ATAMH is not freely available, as its use requires permission from the original authors. The estimated completion time is approximately 12 minutes, which makes it a moderately time-consuming tool compared to other stigma measures. The scale must be administered by a researcher, as self-administration is not recommended [23].

It was found that some tools were validated in different clinical practice settings, but not all. However, tools like the CAMI [14,15,16,17,18] and OMS-HC-15 [19,20,21] have been validated on diverse samples and in various cultures, increasing their applicability and credibility in an international context. In contrast, tools such as the PPPS [24] and OMI [22] show limited validation or have not been tested in broader clinical settings, reducing their universal applicability.

The studies can be divided into those focusing exclusively on the nursing profession and those involving a broader spectrum of healthcare professionals. Studies exclusively targeting nurses included [15,18,19,20,21,22,23], while studies [13,14,16,17,24] involved a wider range of healthcare professionals, with nurses included among the respondents. The sample size varied significantly across studies. In the analysed studies, Cronbach's alpha was the most frequently reported psychometric characteristic. The most commonly used tool, CAMI, demonstrated Cronbach's alpha values ranging from 0.78 to 0.88 [13,14,15,16,17,18]. The OMS-HC-15 was developed to measure changes in healthcare providers' attitudes toward individuals with mental illness and to provide a suitable tool for longitudinal research. The internal consistency of the OMS-HC-15 was rated as acceptable, with a Cronbach's alpha of 0.79 for the entire tool and 0.67–0.68 for individual subscales [11].

The less commonly used tool, OMI, demonstrated reliability (Cronbach's alpha 0.52–0.79) suggesting that it has limited suitability for contemporary nursing research [22]. The reliability of the ATAMH tool was established with a Cronbach's alpha of 0.72, and it evaluates specific attitudes of healthcare providers in acute settings [23].

The AQ-27 measures the attribution of negative traits to patients with mental illness through nine factors, such as personal responsibility and dangerousness. This scale was not specifically developed for healthcare settings. The AQ-27 demonstrated good levels of internal consistency, with Cronbach's alpha ranging from 0.7 to 0.96. The tool also showed construct validity through correlations among subscales that align with the assumptions of the attribution model [28]. The PPPS scale, designed to measure professional stigma in healthcare workplaces, exhibited high reliability values, with Cronbach's alpha at 0.90 and 0.95 [24, 26]. The OMI scale, which assesses public attitudes toward individuals with mental illness, includes dimensions such as social discrimination and social integration. However, it was not specifically created for healthcare environments [27]. Factor analysis of the OMI revealed that its factors accounted for 66.4% of the data variance, and factor reliability was confirmed with alpha coefficients ranging from 0.52 to 0.79. Originally, the scale explored authoritarianism, but the Greek version emphasises social discrimination, describing individuals with mental illness as inferior [22]. The RAQ-7 is a self-assessment tool aimed at measuring healthcare providers' attitudes toward the recovery process of patients. It demonstrated Cronbach's alpha values of 0.81 and 0.72 [35]. The tool was developed with consideration for healthcare settings [27].

DISCUSSION

This review identified seven tools for measuring nurses' stigmatising attitudes toward individuals with mental illness, each with specific strengths and limitations. Scales like CAMI and OMS-HC-15 have been validated across multiple cultures and settings, increasing their versatility. The CAMI, which is the most frequently used tool (n = 6 studies), allows for a comprehensive analysis of stigma dimensions, such as authoritarianism, benevolence, and social ideology [13,14,15,16,17,18]. Although originally designed for general population, it has found broad applicability in healthcare. The OMS-HC-15 scale, specifically developed for healthcare environments, is sensitive to changes in healthcare providers' attitudes and is suitable for longitudinal studies. Its three-dimensional structure provides a comprehensive perspective on the issue of stigmatisation [11,19,20].

The level of stigmatising attitudes among nurses toward individuals with mental illness is influenced by various factors. Key factors include nurses' attitudes, knowledge, and professional experience, which shape their perceptions and behaviors toward mentally ill individuals. Research shows that greater knowledge about mental health can help reduce stigma, while the lack of information or negative stereotypes exacerbates it [11, 28]. Structural validity was confirmed for the OMS-HC-15 and CAMI using factor analysis [11,13]. Content validity was mentioned for CAMI [13,15] and AQ-27 [31], but was lacking for the OMI [22]. Test-retest reliability was reported only for the PPPS [24]. Sensitivity to change was highlighted for the OMS-HC-15, making it suitable for longitudinal research [11]. For tools like AQ-27 and RAQ-7, test-retest reliability and sensitivity to change were not reported, limiting

their use in long-term studies [2, 35]. Less commonly used tools, such as the PPPS and RAQ-7, have a narrowerscope of application . The PPPS, measuring professional stigma in healthcare workplaces, demonstrated high reliability (Cronbach's alpha = 0.90), which makes it a valuable tool for assessing healthcare providers' attitudes toward patients with mental illnesses [24]. The RAQ-7, which focuses on attitudes toward the recovery process, shows more limited applicability outside the specific context of psychiatric care, but it enables the assessment of recovery attitudes with acceptable reliability (Cronbach's alpha = 0.81) [35].

Although this review includes tools which measure nurses' stigmatising attitudes without being tied to specific mental health diagnoses, AQ-27 was included due to its unique approach to analysing the attribution of negative traits and mechanisms of stigmatisation. The vignette featuring schizophrenia allows for deeper understanding of attribution processes, such as personal responsibility, empathy, and fear [37]. Schizophrenia is often regarded as one of the most stigmatised mental illnesses, even in healthcare settings [38]. However, a study by Hsiao et al. in 2015 demonstrated that nurses exhibit higher levels of stigmatisation toward individuals with substance use disorders compared to those with schizophrenia [39]. These findings suggest that AQ-27, focusing on attribution processes related to schizophrenia stigmatization, may not adequately capture differences in stigma toward other mental illnesses. Its general applicability is thus limited, as results may be biased by its specific focus on schizophrenia. Nonetheless, AQ-27 remains a valuable tool for exploring specific aspects of stigmatisation, particularly in situations emphasising nuanced attitudes toward different diagnoses [40]. Munro & Baker highlighted that targeted interventions can help to reduce stigmatising attitudes among healthcare workers. Educational programs aimed at raising awareness of stigma and its impact on the quality of care have proven to be effective [23]. Contact-based interventions, which allow healthcare workers direct interaction with patients with mental illnesses, have the potential to change their behavioral attitudes [13]. Regular assessments of attitudes using validated tools, such as the OMS-HC-15, can help to monitor the effectiveness of interventions and long-term changes in attitudes [19].

For future research, would be benefit from focusing on the validation of tools across different cultures and settings to ensure that results reflect the specific demands of nursing practice [15,24]. Another priority should be the development of new tools which are better adapted to the needs of modern clinical nursing practice [27]. Additionally, it is essential to examine the long-term effects of interventions through longitudinal studies using tools sensitive to change, such as the OMS-HC-15 [11].

Measuring stigmatisation is crucial for nursing research and improving clinical practice. Accurate tools can help identify problematic areas and support the development of targeted interventions to reduce the negative impact of stigma on the quality of nursing care for patients.

This review had several limitations. Only three electronic databases (MEDLINE, Scopus, and EBSCO) were included, and the search was restricted to English-language studies. Although these databases provide broad coverage of healthcare research, relevant studies in other languages or databases may have been overlooked. These limitations can reduce the generalisability of the findings and should be considered when interpreting the results.

CONCLUSIONS

Measuring nurses' stigmatising attitudes toward individuals with mental illnesses is essential not only for nursing research but also for the quality of care provided to patients. Stigmatisation has both direct and indirect effects on patients with mental illnesses, as healthcare providers' negative attitudes can influence access to treatment, the quality of communication, and overall trust in the care received. Reducing stigma is therefore crucial to ensuring equitable and empathetic care for this vulnerable group. Improving healthcare providers' attitudes could create an environment that supports patient recovery, increases their trust in the healthcare system, and reduces the risk of rehospitalisation. We identified seven tools, of which two--OMS-HC-15 and CAMI-were deemed the most suitable. These tools were evaluated not only for their relevance and practicality but also for their psychometric properties. These properties include validity (content, construct, structural, and concurrent), reliability (Cronbach's alpha), and sensitivity to change. CAMI and OMS-HC-15 provide valuable opportunities for analysing nurses' attitudes and evaluating intervention programs aimed at improving these attitudes. CAMI allows for a comprehensive assessment of stigma dimensions, while OMS-HC-15 offers sensitivity to change, which is important for long-term monitoring of intervention effectiveness. These tools can help identify areas where stigmatisation impacts care quality and provide a foundation for targeted educational programs and changes in clinical practice.

The AQ-27 is suitable for studies focusing on attribution processes but not for general measurement of stigmatisation. The PPPS is useful for evaluating the work environment but is also unsuitable for broader stigma measurement. The RAQ-7 is appropriate for studies related to recovery but not for wider analyses of stigma. The ATAMH is appropriate for specific studies in acute care but not for general stigma assessment. The OMI is better suited for sociological studies that analyse broad societal attitudes toward mental illness, as it provides a comprehensive view of social trends and stereotypes. However, in the context of healthcare studies, it is not sufficiently targeted or practical, which limits its applicability for assessing stigma from nurses' perspectives.

The use of these tools in various sociocultural contexts requires further validation to ensure that results reflect specific conditions for assessing nurses' stigmatising attitudes. Validation in resource-limited settings or culturally specific contexts is necessary to enable the global application of these tools. At the same time, it is important to continue developing tools that are better adapted to the realities of nursing practice, enabling them to capture broader dimensions of stigmatization and offer effective strategies for its reduction.

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