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Psychiatrists' Occupational Stigma Conceptualization, Measurement and Intervention: A Literature Review

Psychiatrists' Occupational Stigma

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Abstract

Psychiatrists require frequent contact with and treatment of patients with mental illnesses. Due to the influence of associative stigma, psychiatrists may also be targets of stigma. Occupational stigma warrants special consideration because it significantly affects psychiatrists' career advancement, wellbeing, and their patients' health. Given that there is no complete summary of this issue, this study undertakes a review of existing literature on psychiatrists' occupational stigma to clearly synthesize its concepts, measurement tools, and intervention strategies. Herein we emphasize that psychiatrists' occupational stigma is a multifaceted concept that simultaneously contains physically, socially, and morally tainted aspects. Currently, standardized methods to specifically measure psychiatrists' occupational stigma are lacking. Interventions for psychiatrists' occupational stigma may consider the use of protest, contact, education, comprehensive and systematic methods as well as use of psychotherapeutic approaches. This review provides a theoretical basis for the development of relevant measurement tools and intervention practices. Overall, this review seeks to raise public awareness of psychiatrists' occupational stigma, thereby promoting psychiatric professionalism and reducing its stigma.

Key Words: Psychiatrists; Occupational stigma; Conceptualization; Measurement; Intervention; Associative stigma

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Core Tip: Psychiatrists' occupational stigma, an area being little noticed, deserves more attention from the public and professionals considering its negative effects. This study aims to elucidate its concept, explore the potential measurement tools, and focus on effective interventions by reviewing related literature widely and deeply. It is expected to encourage more studies in this field.

INTRODUCTION

Stigma is a form of social classification. Occupational stigma results when people make derogatory, insulting or negative comments about others practicing their occupation[1]. Occupational stigma is the negative labelling of a profession that the general public views as having dishonorable, humiliating, and shameful features, leading to negative consequences of social exclusion, status loss, demeaning, discrimination, and pessimistic rejection[2–4]. Although stigma arises from dirty work in common sense, any occupation can face various levels and types of stigma[3]. Physicians, a typically prestigious profession[5], also suffer from stigma that seriously jeopardizes health care career development[6,7]. Furthermore, Psychiatrists may experience intense stigma due to the nature of their profession and the population they serve[8]. A study of trainee psychiatrists found that 75 percent of individuals heard denigrating or humiliating remarks about the psychiatric profession[9].

Occupational stigma exerts negative impact on psychiatrists' career advancement, well-being, and patients' health. More specifically, the stigma may cause burnout, job dissatisfaction, and low professional value[10–17], and can act as a strong predictor of

health and well-being[18,19]. Numerous studies have demonstrated that occupational stigma contributes to practitioners' withdrawal behaviors and the propensity to the resignation[14,20–22]. At present, the shortage of psychiatrists can not meet the demands of mental health workforce development[23]. Alarmingly, a research suggested that just around half of the psychiatry college graduates moved on to work in related disciplines[24].It has shown that occupational stigma plays a major role in that kind of phenomenon[25–28]. In addition, as a consequence of stigma, medical students rarely consider psychiatry a future career option, with the perception of taking psychiatrists as having low professional prestige and respect[29–31]. The professional shortage in psychiatry has been existing considering the insufficient medical graduates attracted by psychiatry[32,33]。

Moreover, it is noteworthy that stigma can straightly influence the establishment of the well physician-patient relationship and the treatment process. Stigma is classified as either public stigma or self-stigma, in which patients' stigma toward psychiatrists falls under the former[34]. That public stigma can reduce patient compliance and help-seeking behavior, thereby impeding treatment[32,35]. For another, psychiatrists' self-stigma may result in an increase in defensive medical behavior[36], such as little communication with patients, unnecessary testing, excessive medication, refusal, or referral[37–39], leading to not only health-care costs rise and poor medical relationship but also the potential negative impact on patient health and treatment effect [40].

In conclusion, psychiatrists influenced by associative stigma are perceived as a heavily stigmatized profession. Despite numerous studies showing that occupational stigma exerts a significant negative impact on the development of psychiatry, there is little literature reviewing psychiatrists' occupational stigma. To that end, the purpose of this literature review is to provide a comprehensive overview of the concept, measurement,

and intervention of psychiatrists' occupational stigma by reviewing the extant literature, with the prospect of providing a theoretical reference for future research.

LITERATURE SEARCH

The authors sequentially searched in PubMed, Web of Science and RCA databases for articles containing a cross combination of the following topical keywords: "psychiatrist," "stigma," "occupational stigma," "stress," "negative affect," "career satisfaction," "dirty work," "healthcare workers," "associative stigma," "psychiatry," "mental health professionals," "self-stigma," "mental illness," "intervention," "measurement," "anti-stigma." March 2023 was the deadline for the keyword search, which yielded an initial total of 21,098 papers. Literature selection criteria, as decided between the professor and students, were: first, include a study relevant to and representative of the topic; second, any such study should be published in English or French; third, exclude duplicates. After review 195 papers met the selection criteria and 20,903 papers were excluded.

CONCEPTUALIZATION OF PSYCHIATRISTS' OCCUPATIONAL STIGMA

Research on occupational stigma can be traced back to Hughes' exploration of dirty work[2]. Impressive findings have been attained in the following studies that explore occupational stigma across practically all professions[3,41,42]. In his research on dirty work, Hughes classified occupational stigma into three categories: physically, socially, and morally tainted in the aspect of work content[2]. Based on this, Ashforth and Kreiner provided a precise definition of the three different forms of stigma[43]. Particularly, the term "physically tainted" refers to jobs that involve direct contact with trash, death, or filth[44,45] such as cleaner and mortician, or directly working in dangerous and harmful environment[46,47] such as firefighter and miner. The term "socially tainted" describes jobs like prison guards and infectious disease doctors that

require regular contact with stigmatized groups as part of their duties[48,49], as well as those like nannies and tour guides that include a servant-subordinate relationship[50,51]. The term "morally tainted" refers to occupations that are viewed as being sinful and unethical[52,53] such as doctor who perform abortions or sex worker, as well as occupations with leading and deceptive traits[54,55] such as anchors who lead viewers to spend money and poker players who deceive their opponents. It is critical to note that one type of stigma may predominate in a given occupation, or two or even three types of stigma may exist concurrently[3,43]. Stinger *et al.* extended the three-dimensional classification, arguing that occupational stigma is a negative stereotype formed by the public of certain occupations' work images, social relations, or ethics[56].

In a follow-up study, Kreiner *et al.* further proposed the concepts of "Breadth" and "Depth" of taint applied to work tasks undertaken[3]. Breadth refers to the centrality of stigma in occupational identity, and the frequency of stigma-related behaviors occurring. Depth refers to the degree to which a practitioner is directly exposed to dirt. Accordingly, occupational stigma was further divided into pervasive stigma, compartmentalized stigma, diluted stigma and idiosyncratic stigma. At the same time, Ashforth *et al.* took occupational reputation as an important dimension of occupational stigma division, and then divided occupational stigma into high/Low reputation physically tainted, high/Low reputation socially tainted, and high/Low reputation morally tainted[42]. In a recent study, Zhang *et al.* analyzed the four-level stigma literature of individual, occupational, organizational, and industry, and divided the sources of stigma into six types (physical, tribal, moral, servile, emotional, associational), which extended the three-dimensional classification of occupational stigma. The sources of occupational stigma are considered to include these six types. At the same time, five characteristics of stigma (concealability, controllability, centrality, disruptiveness, malleability) are further proposed. Scholars believe that the types of stigma source and the characteristics of stigma under different social conditions will jointly influence the formation of stigma [57].

At present, different scholars do not consistently agree on the concept of occupational stigma. In related studies, the concept of stigma proposed by Hughes and Ashforth *et al.* is most commonly used. To this end, this study also defines the concept of occupational stigma toward psychiatrists in the aspect of physical, social and moral, and explores the specific causes of occupational stigma.

People with mental illnesses are frequently labeled as "violent," "offensive," "dangerous," and "aggressive"[58]. Compared to doctors in other clinical departments, the public attempts to consider that psychiatrists are more likely to encounter with violence and operate in a riskier setting[59,60], which was confirmed in a survey of psychiatric healthcare professionals[61]. In a study based on a sample in China, it was found that 78% of psychiatrists reported having experienced verbal abuse, compared to over 30% who had experienced physical abuse[62]. Similar findings about psychiatrists' susceptibility to being hurt in medical injury incidents were discovered in surveys conducted in Germany[63] , Ghana[64] , Turkey[65], and Kuwait[66]. Psychiatrists are considered physically tainted because of the hazardous work environment.

For psychiatrists, associative stigma serves as a major source of occupational stigma[67,68]. Due to their frequent interactions with and treatment of patients with mental illness, psychiatrists may experience associative stigma that their clients may attach to them[9,69]. Patients with mental illness are a highly stigmatized group[70,71]. Their image is portrayed as negative, dangerous, and dishonest, and their social value is severely diminished[72]. To a large extent, the formation and development of stigma toward mental illness result from both religion and culture[73]. People with mental illness were thought of as being possessed by evil spirits in Christianity[74] and Islam[75]. Expulsions and floggings, the confinement of mentally ill persons in jails and insane asylums, or even burning as a form of torture were all common practices in medieval Europe, including Switzerland, Germany, and France[72]. Moreover, the

thought of saving face is strongly ingrained in Chinese Confucian culture[76]. Concealing or avoiding the information that a family member suffers from a mental illness is typically done to preserve the family's reputation[68]. Even today, many people who suffer from mental illness and their family members still refrain from disclosing their situations to others for fear of prejudice and rejection. This ubiquitous phenomenon exists in nations where collectivist principles are valued[77,78]. The low use of mental health services is partly caused by the stigma around mental illness[79]. Being socially tainted is, therefore, the most typical trait of psychiatrists' occupational stigma.

The possibility of being morally tainted among psychiatrists should not be overlooked. In treating people with mental illness, coercive measures such as seclusion, restraint, and forced medication are widely used[80]. Although patients perceive coercion as harmful to the treatment, healthcare professionals take it as an effective method of caring for, protecting, and treating patients[81]. Coercive measures have been the subject of heated debate in medical ethics, as well as legal scrutiny. Then, alternative options are sought and implemented by psychiatrists actively[82]. On the one hand, psychiatrists frequently consider physical and chemical restraints necessary, but on the other hand, they also recognize their potential to undermine patient rights and negatively impact the therapeutic relationship[83]. Therefore, it is understandable that psychiatrists may experience criticism, moral condemnation, and perceived intense moral pressure due to the dangers that coercive tactics may cause[84]. Now, an increasing number of researchers are advocating for improvements in the clinical practice of mental health medicine in order to reduce the use of coercive tactics[85]. In addition, Electroconvulsive Therapy (ECT) is frequently utilized to treat a variety of psychiatric diseases, including depression[86] and schizophrenia[87] with positive effects. However, ECT has been stigmatized and used as "proof" of psychiatrists' violence and harm to patients due to the media and the antipsychiatry movement[88]. As a result, psychiatrists also experience being morally tainted.

As illustrated above, the psychiatrists' occupational stigma is a complex idea that calls for multi-dimensional interpretations. Psychiatrists are seen as simultaneously being physically tainted, socially tainted, and morally tainted considering the potentially dangerous work environment, their exposure to and treatment of highly stigmatized populations, and the use of controversial and aggressive treatment methods. Occupational stigma could result in detrimental consequences for psychiatrists including isolation, discrimination, and loss of status and then made itself an indispensable factor to impede the advancement of medical and health services in mental health.

THE MEASUREMENT OF PSYCHIATRISTS' OCCUPATIONAL STIGMA

To date, no occupational stigma scales has been developed for psychiatrists. In such a pertinent quantitative investigation, this can be accomplished by adapting other occupational stigma instruments (see Table 1). There are four different categories of scales that can be used to gauge public stigma toward psychiatrists. One type is that one dimension or more of the scale's items indicates occupational stigma. Richmond *et al.* created the psychometrically reliable Trust in Doctors in General (T-DiG) and Trust in the Health Care Team scales (THCT) to assess public trust in medical professionals and healthcare teams. Both the T-DiG and THCT include twenty-nine items, which are from seven dimensions that refer to stigma-based discrimination, communication skills, system trust, loyalty, confidentiality, fairness, and general trust[89]. The stigma-based discrimination dimension contains three items that doctors or people who work in health care would unfairly treat patients with a history of mental illness, HIV, or drug abuse. Although T-DiG and THCT can reflect the public occupational stigma against physicians to some extent, the richness of occupational stigma is not accessible by measuring a single dimension of the scale. Meanwhile, occupational stigma, the complex concept, must be examined from multiple perspectives. The T-DiG and THCT

contain only one item, physicians' unfair treatment of patients with a history of mental illness, and can only assess specific aspects of occupational stigma.

The second is to measure patients' occupational stigma against physicians. Fan *et al.* developed the Patient Toward Physician Occupational Stigma Scale (PPOSS), which consists of 19 items divided into three dimensions which are stereotype, discrimination, and prejudice. The cognitive, affective, and behavioral components of occupational stigma are measured respectively[90]. Although the PPOSS was created specifically to assess physicians' occupational stigma, there are significant differences between physicians in different departments regarding the source, type, and extent of occupational stigma[49,52,91,92]. Psychiatric patients were not chosen as the study subjects during the development of the PPOSS, and items reflecting the psychiatrists' professional characteristics were lacking. As a result, more evidence is needed to determine whether the PPOSS is suitable for assessing patients' occupational stigma toward psychiatrists.

The third is to measure the public's social distance from physicians to examine their stigmatizing attitudes. A key element of psychological distance is social distance, which measures the degree of intimacy between various groups and between people within the same cohort[93]. The Social Distance Scale (SDS) has been utilized as a measurement tool in a study to examine public stigma and public behavioral inclinations toward physicians[94]. However, the SDS was originally designated not to measure occupational stigma but to measure the public distance perception between various nations, ethnic groupings, races, or groups[95]. The concepts of social isolation and occupational stigma are not interchangeable because they have obvious distinctions. Currently, the SDS is employed in research on occupational stigma less frequently, particularly when assessing public stigma toward physicians. Only a small number of studies used the scale[96].

Fourth, a non-standard assessment method was used to examine the public's negative perceptions of psychiatrists. Ta *et al.* used a self-designed Public attitudes towards psychiatrists questionnaire with eight items to assess public perceptions of psychiatrists. The questionnaire mainly measured the public's negative attitude and views of psychiatrists' professionalism, mental health, occupational authority and ethical standards[97]. Nevertheless, it is hard to state the reliability and validity of the research results because the questionnaire's reliability and validity were not assessed.

The scales that can be used to measure the self-stigma of psychiatrists could be divided into four categories. The first is the scale used to gauge psychiatrists' sensitivity to stigma. The Occupational Stigma Consciousness Scale (OSCS) is the most frequently used tool in studies on physicians' occupational stigma. The OSCS comprises six one-dimensional items that assess practitioners' perceptions of public stigmatization of their work. However, the OSCS was originally developed based on call center service workers and was primarily used to assess the stigma awareness of practitioners in the service industry[98]. According to the needs of researchers' studies, they appropriately adapted the scale for use in quantitative studies of various occupational stigma in subsequent studies[99]. It should not be ignored that psychiatrists are part of a high-prestige profession that differs significantly from dirty work regarding stigma manifestations and negative consequences.

The second is the scale for measuring specific aspects of physician occupational stigma. Based on the SARS stigma scale (SSS), Mostafa *et al.* developed the new COVID-19 Stigma Scale (E16-COVID19-S)[100]. Similar to this, Okta *et al.* developed the Perception of Stigma due to COVID-19 in Physicians (PSCP) with 10 items, including two dimensions that are environmental stigma and individual stigma perception[101]. These two scales measure specific components of physicians' occupational stigma, but fail to reflect its full spectrum of connotations.

The stigmatization of occupational stress and burnout among physicians has been the research focus in this field. For instance, Riley *et al*. discovered that physicians experience high stigma in mental health, work stress and burnout, manifested as inability to admit vulnerability and insistence on working, even if unwell[102]. A study by Wijeratne *et al*. on physicians' mental health stigma found that they tend to conceal their mental health conditions from colleagues and are less likely to seek help because there is a belief that physicians suffering from depression or anxiety disorders are perceived as untrustworthy[103]. This study applied a self-designed 12-item stigma questionnaire as a survey tool, which was not strictly tested for reliability nor validity, but only reported internal consistency coefficient values. Zarzycki *et al*. adopted a self-designed Discriminative Attitude Questionnaire (DAQ) to examine medical students' stigmatization of physicians with mental disorders[104]. The DAQ includes only three non-standardized items and is only applicable for assessing stigma regarding mental disorders. Furthermore, Clough *et al*. developed the 11-item Stigma of Occupational Stress Scale for Doctors (SOSS-D). There are three dimensions extracted in the SOSS-D including perceived structural stigma, perceived individual stigma, and perceived other related stigma[105]. So as to measure occupational stress and burnout stigma in mental health professionals, Clough created the Mental Health Professional Stigma Scale (MHPSS)[106]. There are 17 items total in the MHPSS, which are broken down into four dimensions: perceived other stigma, perceived structural stigma, personal stigma, and self-stigma. Stigmatizing attitudes, stress and burnout among psychiatrists can pose serious threats to their professional development. However, scales for measuring the stigma of occupational stress and burnout specifically among psychiatrists are lacking and should be developed in future research.

The third part include scales for assessing physicians' internalized occupational stigma. Fan *et al*. created a 19-item Physician Internalized Occupational Stigma Scale (PIOSS) divided into three dimensions including label identification, status loss, and career denial. The PIOSS scale is primarily used to evaluate physicians' identification with

negative labels, perceptions of devaluation and discrimination, and denial and disapproval of their profession[107]. Besides, Healey *et al.* developed the Forensic Stigma Scale (FSS) with 12 items falling into two dimensions that refer to danger/unpredictability and blame/responsibility[108]. Although PIOSS and FSS have strong validity and reliability, the study subject did not include psychiatrists.

Fourth, there is a non-standard tool for assessing the perception of stigma among psychiatrists. A self-designed mental health professional's questionnaire was used in the study by Verhaeghe *et al.* Four items comprise the questionnaire, which mainly measures the perceived associative stigma among psychiatrists and other mental health professionals. However, Cronbach's alpha coefficient for the questionnaire was just 0.51 since it had not undergone a rigorous reliability test[109].

Fifth, there is a scale specifically designed to measure the occupational stigma of psychiatrists. The World Psychiatric Association (WPA) has developed specific action plans to reduce the stigma toward psychiatry and psychiatrists. One of the essential tasks is to develop standardized questionnaires[110]. The basic version comprises five scales, which are (a) perceived stigma in terms of the perception of societal stereotypes, (b) self-stigma in terms of stereotype agreement, (c) perceived stigma in terms of structural discrimination, (d) discrimination experiences, and (e) stigma outcomes. The scales (a) and (b) consist of 16 items measuring the professionals' competence, professional conduct, and personality, as well as the stigma of psychiatry as a medical specialty and its treatment methods. Scale (c) and scale (e), consisting of 5 items, assesses the social aspects of stigma and the negative consequences of stigma. Scale (d) consists of 13 items, assessing experiences made in contact with doctors from other disciplines and experiences made in personal life. The scale developed by the WPA is a valid tool for assessing the internalization of occupational stigma among psychiatrists.

THE INTERVENTION OF PSYCHIATRISTS' OCCUPATIONAL STIGMA

The study of stigma intervention strategies has been the main research subject in the stigma field. In order to effectively intervene with various demographics and stigma, the approaches used can be cross-referenced[111,112]. In a systematic evaluation of stigma intervention strategies, which included research findings from various countries (low-, middle-, and high-income), stigmatized populations (such as those with AIDS, mental health disorders, and leprosy), intervention targets (such as medical personnel, family members, and community members), and intervention strategies (such as contact, education, and training), the analysis discovered some similarities in the strategies, measures, and intervention outcomes achieved when intervening with different types of stigma[113]. A review of stigma intervention strategies can serve as a theoretical foundation for psychiatrists' occupational stigma intervention practice. Stigma intervention strategies can be roughly classified into six categories.

First, the protest approach is a strategy for the stigmatized community to voice their opinions and express their disapproval through public declarations, media exposure, and stigma-related commercials to minimize stigma[114]. However, protest tactics risk escalating stigma, leading to public conflict and rebellion[115]. Therefore, they are used relatively infrequently. Furthermore, compared to more conventional rallies and demonstrations, the usage of social media platforms on the internet is growing. For instance, rebuttals to stigmatizing attitudes about mental illness are shared on Twitter during Mental Health Awareness Week (MHAW), an annual effort in May[116]. Similarly, Depression Awareness Week (DAW) is coordinated on Twitter with the primary objective of lowering the stigma attached to mental illness[117].

Second, educational strategies are applied to alter erroneous beliefs and reduce stigma by delivering accurate information to the intervention target[118]. A few commonly employed techniques are class lectures, anti-stigma training, special lectures, workshops, role plays, case studies, watching instructional videos, reading professional

publications, and creating self-reflection reports (see Table 2). In the pertinent literature, more attention is paid to the stigmatization of medical professionals and the general public toward people with mental illnesses. In contrast, relatively few research studies have been conducted on psychiatrists' occupational stigma. Educational strategies effectively change healthcare professionals' attitudes toward patients with mental illnesses and increase contact willingness and frequency[119–122]. Besides that, it is conducive to reducing self-stigma in patients with mental illnesses through education[123]. Moreover, interventions can be implemented in stand-alone educational formats, such as workshops[124] and educational videos[125], or in a combination of formats to achieve more significant results. For example, in Education Not Discrimination (END)[126] and Mental Health First Aid (MHFA)[127], a combination of presentations, videos, action plan ideas, case discussions, and role plays is used.

Third, the contact strategy aims to strengthen relationships with stigmatized people to alleviate adverse stereotypes. In stigma interventions, the contact strategy has been applied most frequently and has produced promising benefits[128]. It is possible to boost intergroup connections and minimize prejudice by increasing the frequency of public contact with stigmatized individuals, especially high-quality contact[129]. According to Corrigan *et al*., contact approaches are approximately three times more effective than educational strategies with more prominent and persistent impact [130]. Even short-term exposure has the potential to improve attitudes and understanding about stigma[131] and lower stigma levels[132]. The question of how to accomplish the desired intervention outcomes and guarantee the effectiveness of the contact method has always been the focus of scholars [131]. Corrigan *et al.* proposed that the most critical factors influencing the effectiveness of interventions are design, target, staff, message, evaluation and follow-up in five areas[133]. Specifically, the intervention can be delivered face-to-face, with a person with extensive life experience serving as a speaker, designing a program that matches the target audience's characteristics and delivering the

intervention through storytelling. After the intervention's completion, evaluation and follow-up of the intervention effects are also required[134].

In terms of forms of intervention, direct and indirect contact are included[135].
Direct contact as a promising anti-stigma strategy can improve communication and cooperation between patients with mental illnesses and other patients, as well as between patients and family members and the general public[136]. By increasing contact between health science students and people with mental illnesses in the Co-Production with Dialogue Program for Reducing Stigma (CPD-RS), it is possible to significantly reduce public stigma and improve mutual understanding between patients and students[137]. Psychoeducational materials, face-to-face workshops, and interventions based on cognitive behavioral therapy were generally well received in the workplace-based multi-country intervention tackling depression, anxiety, and mental illness-related stigma study[138]. In the "Honest, Open, Proud (HOP)" project, self-exposure and community-based participatory research (CBPR) were used to reduce self-stigma among individuals with mental illness[139].

The typical indirect contact method is video contact. Researchers prefer video contact because of its low cost, broad audience reach, reusability, low resource possession, and ease of dissemination[130]. Short video interventions are an essential and effective intervention in studies of depression stigma and help-seeking attitude stigma[140], mental health-related stigma[141], and mental illness stigma[142].

Fourth, comprehensive strategies combine two or all three of the protest, education, and contact strategies. Education and contact strategies are most frequently employed (see Table 3). For instance, Tan *et al.* discovered that increasing interaction (direct contact) and attending lectures (education) improved people's attitudes and levels of acceptance toward those who suffer from depression[143]. Furthermore, a three-stage intervention paradigm was subsequently developed by Ahuja *et al.*[144]. Specifically, participants in

the intervention were required to watch a dance drama to learn about common misconceptions and correct perceptions of mental illness. Then, individuals were asked to listen to an informational lecture and directly communicate with people suffering from mental illness. Hawke *et al.* used an indirect intervention strategy, showing the recorded stage play to healthcare providers, college students, people with bipolar disorder and their friends and family members, and the general public. The findings revealed that education and exposure *via* video approach similarly reduced the stigma of bipolar disorder among intervention subjects and had sound delayed effects[145].

Some studies have attempted to integrate anti-stigma education into school curricula. Ma *et al.*, for example, designed a teaching component covering knowledge, experience, and action, as well as education strategies, direct contact, and indirect contact, to reduce the stigma of mental illness among medical students[146]. Case discussions and systematic curriculum instruction[147,148] can be used to achieve intervention goals[149]. Both educational and direct contact strategies, as well as educational and indirect contact strategies, have demonstrated practical intervention effects[150–164]. However, in a study of an adolescent population, educational strategies alone were superior to combined education and contact strategies in reducing mental illness stigma[165]. The researchers suggest that the young age of the intervention subjects may have contributed to this result and that contact strategies should be used with caution when intervening with adolescents. As a result, more evidence is needed to determine whether the combined strategy is superior to the single intervention strategy in various age groups.

Fifth, systematic intervention strategies emphasize the importance of considering the interplay of factors at different levels when intervening with stigma and integrating different types of intervention strategies into a unified framework[162]. According to Heijnders *et al.*, the effects obtained by employing a single level of intervention strategy or intervening with a single target group are frequently insufficient and necessitate the

integration of multiple factors[169]. As a result, Cook developed a three-level ecosystem model that divides stigma intervention strategies into individual, interpersonal, and structural levels, arguing that interventions at any level can affect the effectiveness of interventions at other levels[170]. Individual-level interventions concentrate on enhancing coping mechanisms used by stigmatized individuals or altering the attitudes and conduct of stigma abusers. By enhancing engagement and contact between the group of stigma abusers and the group being stigmatized, interpersonal interventions aim to reduce intergroup barriers and foster greater mutual understanding. Through the creation of pertinent laws and regulations to lessen prejudice and discrimination, intervention at the structural level is primarily seen from the perspective of the socio-political environment.

Additionally, Heijnders suggested a five-level stigma intervention program (individual level, interpersonal level, social level, organizational and institutional level, and governmental level) [169]. In particular, professional counselling and therapy can be used at the individual level to help the stigmatized population cope with stigma; interventions at the interpersonal level concentrate on improving how the stigmatized population interacts with the elements of their environment in order to gain care and support; and interventions at the social level focus on changing public attitudes through education, advocacy, or contact strategies. At the organizational and institutional levels, specialized training or the development of internal systems can be adopted to reduce stigma in a group, organization, or institution; at the government level, interventions focus on the establishment of relevant laws and policies, as well as the use of coercive measures, to reduce stigmatized speech and behavior.

Sixth, increasing researchers have attempted to incorporate psychotherapeutic approaches and techniques into stigma interventions and have achieved promising results(see Table 4). Hong *et al.* used mindfulness training to intervene with self-stigma in depressed patients and got excellent and long-lasting results[171]. It was found by

Clinton *et al.* that Positive Empathy Intervention (imagining positive contact with the stigmatized person and establishing a positive emotional connection) was superior to traditional contact methods in terms of stigma reduction [172]. Cognitive-behavioral Intervention and Wise Intervention have been shown to increase perceived social support and reduce self-stigma in individuals [173,174]. Furthermore, Visual Information Image Interventions [166] and Work Integration [175] and Work Integration [176] assist individuals in gaining correct knowledge, changing perceptions, and enhancing social inclusion, thereby reducing stigma.

Art Therapy is currently widely applied in the work practice of mental health education in schools. When intervening with the stigma of mental illness in adolescents, art therapy methods such as film, drama, and role-playing can be adopted[177,178]. Picture storytelling or fiction writing can enable the individual's indirect contact with an AIDS patient [179]. The Petkari study discovered that watching a series of movies about mental illness (over 10 weeks) accelerated college students' agency, compassion, and proximity toward patients[180]. Acceptance and Commitment Therapy (ACT), based on relational framework theory, has been dubbed the "Third Wave" of behavioral therapy[181]. In interventions for weight stigma [182], substance use disorder stigma[183], and homosexuality stigma[181], ACT has shown significant positive effects. Furthermore, Narrative Therapy [184], Written Expression-based Emotional Intervention[185], Sand Tray Therapy[186], Compassion-Based Group Therapy(CBGT)[187], and Intergenerational Choir[188] can be used as stigma interventions.

To summarize, in the intervention of psychiatrists' occupational stigma, protest, education, contact, integrated and systematic intervention strategies, and multiple approaches such as positive thinking training, cognitive behavioral therapy, ACT, and art therapy are available to be adopted. In order to achieve optimal results, the appropriate intervention method must be chosen based on the characteristics of the intervention target. It should be noted that while the above intervention strategies have

been applied to various types of stigma interventions with positive results, more evidence is needed to support whether the strategies mentioned above are applicable to psychiatrists' occupational stigma interventions and how they can be implemented to achieve significant intervention effects.

DISCUSSION

In summary, previous studies have yielded results regarding the concept, measurement, and intervention of psychiatrists' occupational stigma. Nevertheless, there is room for improvement in this field. This review aims to elaborate on the thinking and practices of related issues. Therefore, future research should consider improving on the four aspects outlined below.

First, clarify and refine the concept of psychiatrists' occupational stigma. Although various scholars have defined the concept of occupational stigma, related research has focused more on dirty work. Indeed, there is a paucity of research specifically on psychiatrists' occupational stigma. Based on Ash forth *et al.*'s research, this paper elaborates on the sources and dimensions of psychiatrists' occupational stigma, namely physically, socially, and morally. This theoretical framework allows for the development of relevant quantitative research and intervention studies. Although Asforth *et al.*'s concept of occupational stigma has gained widespread acceptance, it is not formally classified other than according to the work content of an occupation. As such, it does not reflect the cognitive, emotional or behavioral components of occupational stigma. In addition, the understanding of occupational stigma is not consistent across disciplines. Future research should combine theories from other disciplines (including individual cognitive models, social identity theory, self-verification perspectives, and other conceptual models) to further explore and extend the conceptual connotations of psychiatrists' occupational stigma. Furthermore, the theoretical framework of occupational stigma should be combined with statistical analysis to determine the multiple dimensions of psychiatrists' occupational stigma.

This study provides such a theoretical basis for future measurement and intervention studies.

Second, develop specific tools to measure psychiatrists' occupational stigma. Lately, as public awareness of the harm of occupational stigma has increased, relevant measurement tools have been refined. However, some existing instruments are not sufficiently reliable nor valid, and tools specifically designed to assess psychiatrists' occupational stigma are lacking. As no consensus exists on the conceptual and operationalization scope of occupational stigma, there is inconsistency in developing relevant dimensional and measurement scales. Furthermore, most tools lack rigorous cross-cultural consistency. Future research should consider the following: (i), define the dimensional scale and classification of psychiatrists' occupational stigma based on a multidisciplinary synthesis; (ii) develop special assessment tools for different stigma types (public stigma and self-stigma) and cohorts (psychiatrists, psychiatric students, mental illness patients, patients' families, and the public); (iii) expand the sample scope across different races, countries and age ranges to determine the impact of cross-cultural backgrounds and generational effects on the results; (iv) based on traditional self-reporting questionnaires, adopt more indirect survey methods such as virtual reality technology, videos, or games allowing for measurement methods with higher ecological validity and aligned to life situations that yield a realistic and contextualized understanding.

Third, improve intervention strategies for psychiatrists' occupational stigma. Intervention strategies specifically applicable to psychiatrists' occupational stigma are currently lacking. Initially, when intervening for psychiatrists' occupational stigma, other types of stigma intervention strategies may be considered. However, undoubtedly these could lead to biases in the effectiveness of the intervention. Therefore, future studies should test whether existing intervention strategies are suitable for psychiatrists. Follow-up horizontal comparison and longitudinal studies can be

conducted on the effects of the three common intervention strategies (protest, education, and exposure), as well as integrated, systematic, or other strategies, seeking to find the most appropriate traditional intervention strategies and setting for psychiatrists. It is necessary to acknowledge that stigma may exacerbate or impede such processes as psychological[190,191] and behavioral responses[192,193] or social relationships, intensifying stress and burnout that could result in mental health disorders. Some studies have demonstrated that educational interventions which provide in-depth information about the negative effects of stigma on mental health professionals can be effective in decreasing stigma, especially for general healthcare professionals with little or no formal mental health training. Alternatively, future research should develop unique, simple, and effective intervention strategies tailored to the characteristics of psychiatrists. Combining intervention studies with experimental studies could identify simple and accessible ways to reduce occupational public stigma directed toward, and self-stigma experienced by, psychiatrists. Importantly also consider that the effects of a particular intervention may not be uniform among psychiatrists from different countries, cultural backgrounds, or years of practice. Thus, when formulating intervention strategies, full consideration should be given to differences in intervention targets.

Fourth, identify cross-cultural consistency or differences in psychiatrists' occupational stigma. Self-evidently, psychiatrists' occupational stigma can vary culturally. Future research should explore the consistency or differences in occupational stigma concepts, measurements, and interventions among psychiatrists in cross-cultural settings. For example, in Chinese culture, traditional ideas conveyed across millennia, such as Confucianism, Taoism, Buddhism, and folklore, have influenced Chinese thinking and behavior towards self-regulation; this combined with strong family values and a face-saving culture, deems mental illness as both a personal sin and a family shame [194]. Other regions may have different stigma levels toward mental illness [195], so cultural traditions may influence the inception of psychiatrists' occupational stigma. Is it

possible that perceptions of psychiatrists' occupational stigma differ across cultures? Dose this influence the measurement and treatment of psychiatrists' occupational stigma? Such interrogations have yet to be confirmed through in-depth research.

LIMITATIONS

It should be acknowledged that there are certain deficiencies in the process of screening and synthesizing, many studies in this literature review. First, the selection criterion which only considered English and French literature was limiting. Therefore, it is possible that relevant studies which satisfied other inclusion criteria were excluded. Thus, overall integrity is somewhat lacking. Second, the literature search was carried out by both professors and students. Irrelevant studies, duplicates, or those arising from incorrect search results were excluded. However, given the excessive literature search results, no secondary duplication test was undertaken. Therefore, it is impossible to determine whether excluded studies should have been included, indicating a lack of rigor. Finally, this review is based on the authors' analyses and synthesis of the literature; although the study seeks to remain objective, it contains some subjectivity.

CONCLUSION

By surveying existing literature, this literature review has proposed a theoretical reference of the concept, measurement, and intervention methods for psychiatrists' occupational stigma. Psychiatrists' occupational stigma is a complex concept that should be interpreted in multiple dimensions. Psychiatrists are associated with three types of stigmas (physical, social, and moral taint) because of the dangers of their work environment, their exposure to and treatment of high-stigma groups, or their use of controversial or aggressive treatments. Currently, there is no occupational stigma scale applicable specifically to psychiatrists. Relevant quantitative research could achieve this by adapting other occupational stigma scales. Table 1 summarizes eight possible categories of occupational stigma measurement tools for psychiatrists, including four types for public stigma and another four for self-stigma. Currently, there are few

studies on occupational stigma interventions for psychiatrists. Therefore, a theoretical reference for identifying relevant intervention practices for psychiatrists' occupational stigma is required. This study has classified such stigma intervention strategies into six categories: protest and education (Table 2), contact and integrated (Table 3), systemic, and means of incorporating psychotherapeutic approaches. (Table 4).

Given that research on psychiatrists' occupational stigma has received insufficient attention and discussion in the academic community, this study has provided a theoretical basis and support for future practical research. The theoretical significance of this review lies in that it refines the concept and structure of psychiatrists' occupational stigma, expands the general research field of occupational stigma, and encourages the mutual discussion of multi-disciplinary occupational stigma theories. This study further outlines relevant empirical research for the development of specialized measurement tools and creative implementations of effective interventions to reduce psychiatrists' occupational stigma, thereby promoting the healthy development of psychiatry and physician-patient relationships.

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