Review Comments and Author Response

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

Authors：Xiao-Li Shi, Lu-Yao Li, Zhi-Guang Fan

We would like to thank you for the efforts in reviewing our manuscript titled "Psychiatrists’ Occupational Stigma Conceptualization, Measurement and Intervention: A Literature Review", and providing many helpful comments and suggestions, which will all prove invaluable in the revision and improvement of our paper, as well as in guiding our research in the future. Our manuscript number 83382 has been carefully revised according to reviewers’ and editors’ suggestions. The amendments are highlighted in yellow in the revised manuscript. All authors have approved the response letter and the revised version of the manuscript.

Answers to REVIEW 1

Comment 1: Dear Authors, Shi and colleagues in the present review entitled ‘Psychiatrists’ Occupational Stigma Conceptualization, Measurement and Intervention: A Literature Review’, reviewed the related literature on psychiatrists’ occupational stigma and aimed to further clarify its concept, measurement tools, and intervention strategies. The results of this study provided a theoretical foundation for measuring occupational stigma toward and among psychiatrists,

and for developing interventions for psychiatrists. The authors concluded by stating that this work can draw attention to psychiatrists' occupational stigma, thereby reducing it and promoting the development of psychiatry and the construction of a professional psychiatric workforce. The main strength of this manuscript is that it addresses an interesting and timely question, providing a captivating interpretation and describing psychiatrists' occupational stigma, and focusing on effective interventions by reviewing related literature widely and deeply. In general, I think the idea of this review is really interesting and the authors' fascinating observations on this timely topic may be of interest to the readers of World Journal of Psychiatry.

Answer: Thank you for the recognition. We have carefully read every comment the reviewer presented and made meticulous revisions. It is hopeful that we can steadily improve the quality of the paper under your guidance until it meets the requirements for publication.

Comment 2: However, some comments, as well as some crucial evidence that should be included to support the authors' argumentation, needed to be addressed to improve the quality of the manuscript, its adequacy, and its readability prior to the publication in the present form. My overall opinion is to publish this paper after the authors have carefully considered my suggestions below. Please consider the following comments: 1. Abstract: Also, in my opinion, Authors should consider rephrasing this section. According to the Journal's guidelines, the Abstract should contain most of the following kinds of information in brief form. Please, consider giving a more synthetic overview of the paper's key points: I would suggest rephrasing the results and conclusion to make them clear for readers to understand. I would

like the authors to focus on proportionally presenting the background including the objectives, the short summary, and the conclusion without subheadings. The background should include the general background (one to two sentences), the specific background (two to three sentences), and current issue addressed to this study (one sentence), leading to the objectives. The short summary should close with one to two sentences which put the body of manuscript into a more general context. The conclusion should include one sentence describing the main message using such words like “Here we highlight”. The conclusion should write the potential and the advance this study has provided in the field and finally a broader perspective (two to three sentences) readily comprehensible to a scientist in any discipline.

Answer: Many thanks to the reviewer for his or her comments. In response to the above problems, the article makes an adjustment.

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.

Comment 3: I would ask the Authors to clarify the criteria they decided to use for studies' collection in their review: they should specify the number of studies included in the review and the requirements used to decide whether a study met the inclusion/exclusion criteria of the review; they also should provide a more detailed description of all other variables for which data were sought, and briefly present results of all statistical syntheses conducted.

Answer: We thank the expert for his or her careful suggestions. The authors have added a LITERATURE SEARCH section to the text to elaborate on the inclusion criteria for the studies cited in the text. This section specifically describes the number of articles included in the text, the inclusion criteria required, a detailed description of the other variables used in the search for literature and a brief description of the results of all statistical syntheses performed. The modified section is as follows:

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.

Comment 4: The objectives of this study are generally clear and to the point; however, I believe that there are some ambiguous points that require clarification or refining. I think that authors here need to be explicit regarding how they operationally investigated the concept of psychiatrists' occupational stigma, since this is the key aim of this review.

Answer: We are very grateful to the experts for their suggestions in the concept section. The authors together re-edited this part according to the expert's recommendation.The modified section is as follows:

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]. 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 this 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.

[Reference]

2 Hughes EC 1897-1983. Men and their work. Free Press

3 Kreiner GE, Ashforth BE, Sluss DM. Identity Dynamics in Occupational Dirty Work: Integrating Social Identity and System Justification Perspectives. Organ Sci 2006; 17: 619–636. [DOI: 10.1287/orsc.1060.0208]

41 Ashforth BE, Kreiner GE. Dirty Work and Dirtier Work: Differences in Countering Physical, Social, and Moral Stigma. Manag Organ Rev 2014; 10: 81–108. [DOI: 10.1111/more.12044]

42 Ashforth BE, Kreiner GE, Clark MA, Fugate M. Normalizing Dirty Work: Managerial Tactics for Countering Occupational Taint. Acad Manage J 2007; 50: 149–174. [DOI: 10.5465/AMJ.2007.24162092]

43 Ashforth BE, Kreiner GE. 'How Can You Do It?': Dirty Work and the Challenge of Constructing a Positive Identity. Acad Manage Rev 1999; 24: 413. [DOI: 10.2307/259134]

44 Benjamin O, Bernstein D, Motzafi-Haller P. Emotional Politics in Cleaning Work: The Case of Israel. Hum Relat 2011; 64: 337–357. [DOI: 10.1177/0018726710378383]

45 Carden P. Rising from the Dead: Delimiting Stigma in the Australian Funeral Industry. Health Sociol Rev 2001; 10: 79–87. [DOI: 10.5172/hesr.2001.10.2.79]

46 Johnson CC, Vega L, Kohalmi AL, Roth JC, Howell BR, Van Hasselt VB. Enhancing Mental Health Treatment for the Firefighter Population: Understanding Fire Culture, Treatment Barriers, Practice Implications, and Research Directions. Prof Psychol Res Pract 2020; 51: 304–311. [DOI: 10.1037/pro0000266]

47 Maibvise C, Shongwe M, Jele V, Dlamini P, Chiviya W. Perceptions about Tuberculosis and Perceived Tuberculosis-Related Stigma and Associated Factors among the Mining Community in Eswatini. Afr Health Sci 2022; 22: 551–9. [PMID: 36032435 DOI: 10.4314/ahs.v22i1.64]

48 Tracy SJ. The Construction of Correctional Officers: Layers of Emotionality behind Bars. Qual Inq 2004; 10: 509–533. [DOI: 10.1177/1077800403259716]

49 Lohiniva A-L, Kamal W, Benkirane M, Numair T, Abdelrahman M, Saleh H, Zahran A, Talaat M, Kandeel A. HIV Stigma toward People Living with HIV and Health Providers Associated with Their Care: Qualitative Interviews with Community Members in Egypt. J Assoc Nurses AIDS Care JANAC 2016; 27: 188–198. [PMID: 26718817 DOI: 10.1016/j.jana.2015.11.007]

50 Lim N, Paul AM. Stigma on a Spectrum: Differentiated Stigmatization of Migrant Domestic Workers' Romantic Relationships in Singapore. Gend Place Cult 2021; 28: 22–44. [DOI: 10.1080/0966369X.2019.1710474]

51 Li Y, Song Y, Wang M, Huan T-C (T. C). The Influence of Tour Guides' Service Quality on Tourists' Tour Guide Stigma Judgment: An Asian Perspective. J Hosp Tour Manag 2021; 48: 551–560. [DOI: 10.1016/j.jhtm.2021.08.011]

52 Aniteye P, O'Brien B, Mayhew SH. Stigmatized by Association: Challenges for Abortion Service Providers in Ghana. BMC Health Serv Res 2016; 16: 486. [PMID: 27612453 DOI: 10.1186/s12913-016-1733-7]

53 Stardust Z, Treloar C, Cama E, Kim J. 'I Wouldn't Call the Cops if I was being Bashed to Death': Sex Work, Whore Stigma and the Criminal Legal System. Int J Crime Justice Soc Democr 2021; 10. [DOI: 10.5204/ijcjsd.1894]

54 Wang S. Live streaming, Intimate Situations, and the Circulation Of Same-Sex Affect: Monetizing Affective Encounters on Blued. Sexualities 2020; 23: 934–950. [DOI: 10.1177/1363460719872724]

55 Vines M, Linders A. The Dirty Work of Poker: Impression Management and Identity. Deviant Behav 2016; 37: 1064–1076. [DOI: 10.1080/01639625.2016.1169740]

Comment 5: THE MEASUREMENT OF PSYCHIATRISTS' OCCUPATIONAL STIGMA: In this section, authors focused on describing measurement tools can be used to gauge public stigma toward psychiatrists. In this regard, I would suggest to also focus on describing also psychiatrists' stigmatising attitudes and perceptions of stigma towards stress and burnout in their work: that would be useful to further develop a reliable measure of stigma of occupational stress and burnout among psychiatrists.

Answer : Many thanks to the review expert for the comment. The modified section is as follows:

The new sixth and seventh paragraph were added in the section of psychiatrists' occupational stigma measurement.

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.

[Reference]

101 Oktar D, Aydoğan S, Sungur S, Önsüz M, Metintas S, Kosger F, Altinoz E. Reliability and Validity of the Perception of Stigma due to COVID-19 in Physicians. Eur J Public Health 2021; 31: 275. [DOI: 10.1093/eurpub/ckab164.718]

102 Riley R, Buszewicz M, Kokab F, Teoh K, Gopfert A, Taylor AK, Van Hove M, Martin J, Appleby L, Chew-Graham C. Sources of Work-Related Psychological Distress Experienced by UK-wide Foundation and Junior Doctors: a Qualitative Study. BMJ Open 2021; 11: e043521. [DOI: 10.1136/bmjopen-2020-043521]

103 Wijeratne C, Johnco C, Draper B, Earl J. Doctors' Reporting of Mental Health Stigma and Barriers to Help-Seeking. Occup Med Oxf Engl 2021; 71: 366–374. [PMID: 34534344 DOI: 10.1093/occmed/kqab119]

104 Zarzycki MZ, Goetz Z, Flaga-Łuczkiewicz M. What Do Medical Students Think about Medical Doctors with Mental Health Issues? Psychol Health Med 2020; 25: 623–629. [DOI: 10.1080/13548506.2020.1724309]

105 Clough BA, Ireland MJ, March S. Development of the SOSS-D: A Scale to Measure Stigma of Occupational Stress and Burnout in Medical Doctors. J Ment Health 2019; 28: 26–33. [PMID: 28868957 DOI: 10.1080/09638237.2017.1370642]

106 Clough BA, Hill M, Delaney M, Casey LM. Development of A Measure of Stigma towards Occupational Stress for Mental Health Professionals. Soc Psychiatry Psychiatr Epidemiol 2020; 55: 941–951. [PMID: 31897577 DOI: 10.1007/s00127-019-01820-9]

Comment 6: Discussion: In this final section, authors described the results of their study and their argumentation and captured the state of the art well; however, I would have liked to see some views on a way forward. I believe that the authors should make their effort, trying to

explain the theoretical implication as well as the translational application of this paper, to adequately convey what they believe is the take-home message of their study. In this regard, I believe that it would be necessary to discuss theoretical and methodological avenues in need of refinement, as well as suggestions of a path forward in understanding the evidence for psychiatrists' occupational stigma in mental-health-care settings. Indeed, recent research have suggested educational interventions that could be effective in decreasing stigma especially for general health-care professionals with little or no formal mental health training: in my opinion, it would be very useful to deepen information about the effects of stigma on mental health professionals, by worsening, undermining, or impeding a number of processes, including social relationships, resource availability, and psychological (DOI: 10.3390/ijms24044114; DOI: 10.3390/biomedicines10122999) and behavioral responses (https://doi.org/10.3389/fnbeh.2022.998714; DOI: 10.3390/cells11162607), exacerbating their own stress and burnout that could lead to the development of mental health disorders (https://doi.org/10.3390/biomedicines10123189; https://doi.org/10.3390/biomedicines10081897).

Answer: Many thanks to the reviewer for his detailed comment. The authors together discussed and tried efforts to supplement the unmentioned part. The modified section is as follows:

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.

[Reference]

190 Tajti J, Szok D, Csáti A, Szabó Á, Tanaka M, Vécsei AL. Exploring Novel Therapeutic Targets in the Common Pathogenic Factors in Migraine and Neuropathic Pain. MEDICINE & PHARMACOLOGY [DOI:10.20944/preprints202301.0034.v1]

191 Tanaka M, Szabó Á, Vécsei L. Integrating Armchair, Bench, and Bedside Research for Behavioral Neurology and Neuropsychiatry: Editorial. Biomedicines 2022; 10: 2999. [DOI: 10.3390/biomedicines10122999]

192 Battaglia S, Cardellicchio P, Di Fazio C, Nazzi C, Fracasso A, Borgomaneri S. Stopping in (e)motion: Reactive Action Inhibition When Facing Valence-Independent Emotional Stimuli. Front Behav Neurosci 2022; 16: 998714. [DOI: 10.3389/fnbeh.2022.998714]

193 Tanaka M, Szabó Á, Spekker E, Polyák H, Tóth F, Vécsei L. Mitochondrial Impairment: A Common Motif in Neuropsychiatric Presentation? The Link to the Tryptophan–Kynurenine Metabolic System. Cells 2022; 11: 2607. [DOI: 10.3390/cells11162607]

194 Lam C, Tsang H, Corrigan P, Lee Y-T, Angell B, Shi K, H. J, Larson J. Chinese Lay Theory and Mental Illness Stigma: Implications for Research and Practices. J Rehabil 2010; 76: 35–40.

195 Ran M-S, Hall B, Prawira B, Breth-Petersen M, Li X-H, Zhang T. Stigma of Mental Illness and Cultural Factors in Pacific Rim Region: A Systematic Review. BMC Psychiatry 2021; 21. [PMID: 33413195 DOI: 10.1186/s12888-020-02991-5]

Comment 7: In my opinion, although not mandatory, I believe that a proper and defined ‘Conclusions’ paragraph would be useful here to properly convey some thoughtful as well as in-depth considerations by the authors. The authors should make their effort to explain the theoretical implication as well as the translational application of their research.

Answer: Many thanks to the reviewer for his careful review. A ‘Conclusion’ paragraph indeed makes the article more complete. The new added part is as follows：

Conclusion

By surveying existing literature, this study 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.

Comment 8： In according to the previous comment, I would ask the authors to include a proper 'Limitations and future directions' section before the end of the manuscript, in which authors can describe in detail and report all the technical issues brought to the surface.

Answer: Many thanks to the reviewer for his careful review. The Limitation section is added before the end of the manuscript.

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.

Comment 9：

I suggest submitting your work to an English native speaker to help with some grammar mistakes that can be found in different sections of the manuscript.

Answer: Thanks for your careful reading. The authors will send to English native speaker to help check the grammar mistakes as the same when the authors fist submitted.

Comment 10：

Overall, the manuscript contains four tables and181 references. I believe that this manuscript might carry important value in describing psychiatrists' occupational stigma and the related concepts, measurements, and interventions. I hope that, after these careful revisions, the manuscript can meet the Journal's high standards for publication. I am available for a new round of revision of this review. I declare no conflict of interest regarding this manuscript. Best regards, Reviewer

Answer: The authors appreciate the reviewer's recommendation and will make a revision carefully according to the expert's instruction. Thank you very much!

Answers to REVIEW 2

Comment 1： This is a narrative review of psychiatrists' occupational stigma. The topic is relevant and actual, worth for the attention of the readers. The title reflects the main subject of the manuscript.The abstract appropriatelly summarizes and reflects the work described in the manuscript. Key words reflect the focus of the manuscript.

Answer: We thank the reviewer for the approval of the title, abstract and keyword section of this paper.

Comment 2： The manuscript covers all relevant issues regarding occupational stigma. Authors start with the description of the concept, then discuss measurement tools, and intervention strategies. The manuscript highlights the importance of the field and the existing gaps in research thus contributes to the research progress of the field. In the discussion authors interpret the findings adequately and appropriately, highlighting the key points concisely, clearly and logically.

Answer: Many thanks to the reviewers for recognizing this paper.

Comment 3： The discussion is accurate, authors discuss the paper's relevance to clinical practice sufficiently.

Answer: Many thanks to the reviewer for the affirmation.

Comment 4： Tables are sufficient, good quality and appropriately illustrative. The manuscript appropriately cite the latest, important and authoritative references.

Answer: Many thanks to the reviewer for the comment.

Comment 5： The manuscript is well, concisely and coherently organized and presented. The style, language and grammar accurate and appropriate.

Answer: Many thanks to the reviewer for the kind recognition.

Answers to Science editor

Comment 1： The manuscript has been peer-reviewed, and it' s ready for the first decision.

Language Quality: Grade B (Minor language polishing)

Scientific Quality: Grade B (Very good)

Answer: Many thanks to the editor’s evaluation. The authors made efforts to polish language in order to submit a qualified article.

Answers to Company editor-in-chief

Comment 1： I have reviewed the Peer-Review Report, full text of the manuscript, and the relevant ethics documents, all of which have met the basic publishing requirements of the World Journal of Psychiatry, and the manuscript is conditionally accepted. I have sent the manuscript to the author(s) for its revision according to the Peer-Review Report, Editorial Office’s comments and the Criteria for Manuscript Revision by Authors.

Answer: Thanks to the editor-in-chief for informing the authors about the details.

Comment 2： Authors are required to provide standard three-line tables, that is, only the top line, bottom line, and column line are displayed, while other table lines are hidden. The contents of each cell in the table should conform to the editing specifications, and the lines of each row or column of the table should be aligned. Do not use carriage returns or spaces to replace lines or vertical lines and do not segment cell content.

Answer: Thank you for pointing out this problem in manuscript. The tables in the article have been revised to three-line tables according to your kind suggestions.

Comment 3: Before final acceptance, when revising the manuscript, the author must supplement and improve the highlights of the latest cutting-edge research results, thereby further improving the content of the manuscript. To this end, authors are advised to apply a new tool, the RCA. RCA is an artificial intelligence technology-based open multidisciplinary citation analysis database. In it, upon obtaining search results from the keywords entered by the author, "Impact Index Per Article" under "Ranked by" should be selected to find the latest highlight articles, which can then be used to further improve an article under preparation/peer-review/revision. Please visit our RCA database for more information at: https://www.referencecitationanalysis.com/.

Answer: We gratefully appreciate for your valuable comment. Some latest research results haven been added after applying RCA tool, which is really convenient. The below is what we have added in the article.

[Reference]

1 Tajti J, Szok D, Csáti A, Szabó Á, Tanaka M, Vécsei AL. Exploring Novel Therapeutic Targets in the Common Pathogenic Factors in Migraine and Neuropathic Pain. MEDICINE & PHARMACOLOGY [DOI:10.20944/preprints202301.0034.v1]

2 Lee Y, Yoon HJ, Joo J. Role of Fresh Start Mindset Framing in Reducing Stigma and Promoting Mental Health Help‐Seeking Behavior. J Consum Behav 2023; : cb.2155. [DOI: 10.1002/cb.2155]

3 Monnapula-Mazabane P, Petersen I. Feasibility and Acceptability of a Mental Health Stigma Intervention for Low-Income South African Caregivers: A Qualitative Investigation. South Afr J Psychiatry 2022; 28. [DOI: 10.4102/sajpsychiatry.v28i0.1824]

4 Valentim O, Moutinho L, Laranjeira C, Querido A, Tomás C, Longo J, Carvalho D, Gomes J, Morgado T, Correia T. “Looking beyond Mental Health Stigma”: An Online Focus Group Study among Senior Undergraduate Nursing Students. Int J Environ Res Public Health 2023; 20: 4601. [DOI: 10.3390/ijerph20054601]

5 Qin S, Sheehan L, Yau E, Chen Y, Wang Y, Deng H, Lam C, Chen Z, Zhao L, Gan S, Mao H, Mo X, Yang L, Zhang F, Corrigan P, CBPR Team. Adapting and Evaluating a Strategic Disclosure Program to Address Mental Health Stigma Among Chinese. Int J Ment Health Addict [DOI:10.1007/s11469-022-00911-0]

6 Kreiner G, Mihelcic CA, Mikolon S. Stigmatized Work and Stigmatized Workers. Annu Rev Organ Psychol Organ Behav 2022; 9: 95–120. [DOI: 10.1146/annurev-orgpsych-012420-091423]