

Original Paper

A Pilot Study of Barriers to Psychiatric Treatment among Japanese Healthcare Workers

Toshiatsu Taniguchi^{1,2*}, Hitoshi Tanimukai³, Kei Hirai⁴ & Kayo Tajime²

¹ Department of Psychology, Faculty of Human Cultures, Fukuyama University, Sanzo, Gakuen-cho, Fukuyama, Hiroshima, Japan

² Department of Psychiatry, Tottori Seikyo Hospital, 458 Suehiroonsenn-cho, Tottori, Japan.

³ Department of Human Health Sciences, Graduate School of Medicine, Kyoto University, 53 Kawaharacho, Syogoin, Sakyou-ku, Kyoto, Japan

⁴ Department of Clinical Psychology, Osaka University Graduate School of Human Sciences 1-2 Yamadaoka, Suita, Osaka, Japan

* Toshiatsu Taniguchi, Department of Psychology, Faculty of Human Cultures, Fukuyama University, Sanzo, Gakuen-cho, Fukuyama, Hiroshima, Japan

Received: July 26, 2018 Accepted: September 20, 2018 Online Published: September 30, 2018
doi:10.22158/mshp.v2n2p76 URL: <http://dx.doi.org/10.22158/mshp.v2n2p76>

Abstract

Background: The medical service industry has the highest number of industry-classified workers' compensation claims related to mental disorders. They are a group of people who particularly need mental health care.

Aims: To investigate the barriers to seeking psychiatric treatment among healthcare workers.

Methods: This cross-sectional survey was conducted for healthcare workers. We assessed the relationship between barriers to psychiatric treatment, stress perception, coping methods, and demographic variables.

Results: There were 91 respondents in the final analysis (participants' mean age was 34.73±11.41). Factor analysis identified three factors that affect resistance to seeking treatment ($\alpha=0.83$): 1) anxiety toward psychiatric medicine, 2) resistance to psychiatric visits, and 3) lack of belief in the effectiveness of psychiatric treatment. Correlation analysis indicated that resistance to psychiatric treatment increased with age ($r=0.21$, $p<0.05$). In addition, women scored significantly higher than men concerning resistance toward psychiatric visits, and doctors scored lower than those in other occupations on this measure.

Conclusion: These results indicated that a main component of resistance was related to resistance

toward the word “psychiatric”. It may be useful to avoid using the word “psychiatric” with individuals belonging to groups with high resistance to psychiatric treatment when suggesting that they consult a psychiatrist.

Keywords

barriers to seeking psychiatric treatment, healthcare workers, stigma against psychiatry, mental health service use

1. Introduction

Mental health among healthcare workers has been studied mainly regarding burnout (Jennings, 2008; Wood & Killion, 2007; Dewa, Loong, Bonato, Thanh, & Jacobs, 2014). Recent systematic reviews have revealed that the prevalence of depressive symptoms among resident physicians has increased over time (Mata et al., 2015). For example, researchers have also examined mental health of healthcare workers engaged in palliative care showing that 27% of social workers might be experiencing burnout (Parola, Coelho, Cardoso, Sandgren, & Apóstolo, 2017), and more than 70% of nurses working in nurse shortage settings have also experienced states of burnout (Toh, Ang, & Kamala Devi, 2012). A large-scale survey demonstrated that 41.4% of Japanese physicians working in stroke care units experienced burnout, and influence factors were day-offs per week, years of experience, and income. The medical service industry has the highest number of industry-classified workers' compensation claims related to mental disorders in Japan (Ministry of Health, Labor, & Welfare, 2013); these results indicate that healthcare workers are in a mentally and physically challenging environment and, thus, they are a population who particularly needs mental health care.

Although the social costs of mental disorders are clear from the studies mentioned above, it has also been shown that many people are not aware of the availability of psychiatric treatment. There are four major types of barriers preventing people from seeking psychiatric treatment: 1) individual decision making (i.e., whether or not to receive psychiatric treatment), 2) treatment from the primary care provider (i.e., whether the primary care doctor can diagnose the mental health problem), 3) introduction to specialized psychiatric treatment (i.e., whether or not to introduce a patient to psychiatric treatment), and 4) level of treatment provided by a psychiatrist (i.e., whether the patient can receive proper treatment). Barriers to seeking treatment may include system-level structural barriers, such as lack of knowledge of the psychiatric hospital location and cost of psychiatric treatment. Attitudinal barriers, such as lack of knowledge of the effectiveness of treatment and the attitude that one should solve the problem by oneself, are particularly important at the level of individual decision-making (Collins, Westra, Dozois, & Burns, 2004; Van et al., 2010). Although our previous survey demonstrated that male gender, financial issues, and depression triggers were associated with unwillingness to seek professional help (Yoshikawa, Taniguchi, Nakamura-Taira, Ishiguro, & Matsumura, 2017), it has been shown that stigma against psychiatric treatment can be an obstacle in providing or utilizing psychiatric

treatment (Corrigan, Druss, & Perlick, 2014); removal of this stigma is important in promoting early treatment.

The belief that healthcare workers should manage their health by themselves is a cognitive characteristic that is distinctive among healthcare workers (Miki, 2002). Knaak, Mantler, and Szeto (2017) also indicated that stigma around mental illness among healthcare workers is caused by unconscious bias or pessimism regarding psychiatric treatment, and lack of education and skills related to mental health care. This suggests that healthcare workers are likely to have high levels of resistance toward psychiatric treatment, even though they are a group of people who need mental health care. However, there is no published research that has investigated the barriers toward seeking psychiatric treatment among Japanese healthcare workers. The purpose of this study was to identify factors that are barriers to seeking psychiatric treatment among healthcare workers and to investigate better ways to reduce those barriers.

2. Methods

2.1 Participants and Study Design

This study was approved by the Institutional Review Board for Clinical Research of Tottori Seikyo Hospital. From August 2010 to March 2011, this cross-sectional survey was conducted during several workshops held for healthcare workers about either mental health care or integrative medicine. We informed participants beforehand about the purpose of this study and ethical issues; response to the survey was anonymous, and participation in this research was voluntary. The questionnaire consisted of questions regarding stress and image of psychiatric care projects. We requested responses from individuals who consented to participate in this research. Being a medical service worker was also an eligibility criterion to obtain opinions from healthcare workers.

2.2 Measures

We developed a questionnaire to assess the barriers to psychiatric treatment among healthcare workers. Items in the questionnaire were developed with reference to previous studies (Collins et al., 2004; King et al., 2007) and based on the clinical experience of those of us who are researchers in the field of clinical psychology and psychiatry. The questionnaire consisted of three parts comprising a total of 24 items.

The first part of the questionnaire asked questions about barriers to seeking psychiatric treatment. The items included in this part were developed based on previous studies from Western countries (Collins et al., 2004) as well as on consultations with a psychiatric doctor and a psychologist. This part consisted of 12 items aimed at assessing the barriers to seeking psychiatric treatment from a variety of perspectives (e.g., “I am worried about what others might think of me seeing a psychiatrist”, “I don’t think that psychiatric treatment is effective”, “I have resistance to seeing a psychiatrist, but I can consult a psychotherapist”, among other items). We asked participants to rate each item either yes or no. The content validity of this questionnaire was confirmed by the researchers. The second part of the

questionnaire examined variables that may influence the likelihood of seeking psychiatric treatment, such as working hours, sleeping hours, level of perceived stress (rated on a five-point scale), and methods for coping with stress (rest, hobbies, drinking, chatting with family, and others). We asked participants to base answers on their experiences during the month before the survey. The final part of the questionnaire asked for participants' demographic information regarding age, gender, occupation, and type of hospital in which they were employed (university hospital, general hospital, clinic, and others).

2.3 Data Analysis

Initially, we conducted a chi-square test to determine the differences among the responses ("Yes" or "No") for each item measuring resistance to psychiatric treatment. Afterward, a factor analysis was performed using categorical data to study the items' factor structure and resistance toward psychiatric treatment. Next, we conducted a correlation analysis of age groups, labor hours, sleeping hours, and stress levels to assess the factors affecting resistance toward psychiatric treatment (revealed by the factor analysis). We employed t-tests and variance analysis to examine the effect of gender, job categories, and place of employment (university hospital, general hospital, clinic, and others). We utilized the polycor and psych packages of R software (version 2.15.1) for the analyses.

3. Results

3.1 Participants

We obtained 91 valid responses from 118 participants (77% response rate); of these 27 were male and 64 female. Participants had a mean age of 34.73 years (SD=11.41, range: 20-60). Participants consisted of 15 doctors, 12 nurses, 29 pharmacists, and 35 dental hygienists. Their places of employment consisted of 21 university hospitals, 44 general hospitals, 15 clinics, and 11 additional facilities (Figure 1).

	n	%
Age (years)		
20-29	22	24%
30-39	31	34%
40-49	15	16%
50-59	19	21%
60-69	4	4%
Sex		
Male	27	30%
Female	64	70%
Job category		
Doctor	15	16%
Nurse	12	13%
Pharmacist	29	32%
Dental hygienist	35	38%
Place of employment		
University hospital	21	23%
General Hospital	44	48%
Medical Clinic	15	16%
Other	11	12%

Figure 1. Demographic Variables and Health State (n=91)

3.2 Factor Structure of Resistance toward Psychiatric Treatment

We conducted a factor analysis using categorical data to study the factor structure of resistance toward psychiatric treatment. Tetrachoric correlation (the correlation coefficient between binary data) was employed to calculate a correlation matrix to be used in the factor analysis of categorical data (Figure 2). Parallel analysis, Kaiser criterion, and scree plot evaluation all indicated that a three-factor structure was reasonable. These factors were named: “anxiety toward psychiatric medicine”, “resistance toward psychiatric visits”, and “disbelief in the effectiveness of psychiatric treatment”. Cronbach’s alpha coefficients for each factor were 0.83, 0.82, and 0.82, respectively (Figure 3).

	Items	No.1	No.2	No.3	No.4	No.5	No.6	No.7	No.8	No.9	No.10	No.11	No.12
No.1	I can relieve stress at work by myself.	1	-0.135	0.033	-0.068	-0.185	0.082	0.268	0.248	-0.438	0.257	0.217	0.299
No.2	I visit a psychiatrist or a psychosomatic clinic when I have mental disorders.	-0.135	1	-0.044	0.282	0.264	-0.202	0.098	0.036	-0.227	0.071	-0.164	0.355
No.3	I am worried about what others think of me seeing a psychiatrist.	0.033	-0.044	1	0.260	0.379	0.199	0.041	0.251	-0.088	0.076	-0.173	0.115
No.4	I have resistance against seeing a psychiatrist, but I can go to a psychosomatic clinic.	-0.068	0.282	0.260	1	0.686	-0.037	0.225	0.098	-0.160	-0.072	0.399	0.147
No.5	I have resistance against seeing a psychiatrist, but I can consult a psychotherapist.	-0.185	0.264	0.379	0.686	1	-0.004	0.254	0.065	-0.086	0.271	0.335	0.111
No.6	I would rather see and consult a doctor I do not know than the doctor I regularly see.	0.082	-0.202	0.199	-0.037	-0.004	1	0.198	0.344	0.023	-0.032	0.067	-0.439
No.7	I think there are side effects and potential for addiction related to the medicine used in psychiatric treatment.	0.268	0.098	0.041	0.225	0.254	0.198	1	0.469	-0.022	0.861	0.173	-0.216
No.8	I want to be the one to consider (decide) the type of medication prescribed to me in psychiatric treatment.	0.248	0.036	0.251	0.098	0.065	0.344	0.469	1	0.035	0.421	0.146	-0.207
No.9	I don't think that psychiatric treatment is effective.	-0.438	-0.227	-0.088	-0.160	-0.086	0.023	-0.022	0.035	1	-0.016	-0.127	-0.780
No.10	I think psychiatric treatment completely relies on medication.	0.257	0.071	0.076	-0.072	0.271	-0.032	0.861	0.421	-0.016	1	0.140	-0.131
No.11	I prefer to receive counseling without any medication for my treatment.	0.217	-0.164	-0.173	0.399	0.335	0.067	0.173	0.146	-0.127	0.140	1	-0.267
No.12	I think that receiving medication is as important as receiving counseling.	0.299	0.355	0.115	0.147	0.111	-0.439	-0.216	-0.207	-0.780	-0.131	-0.267	1

Figure 2. Correlation Matrix Calculated by Tetrachoric Correlation

	Items	Factor 1	Factor 2	Factor 3	h ²	u ²
Anxiety toward a psychiatric medication ($\alpha=0.83$)						
10	I think psychiatric treatment completely relies on medication.	1.11	-0.33	0.12	1.00	0.00
7	I think there are side effects and potential for addiction related to the medicine used in psychiatric treatment.	0.56	0.29	-0.18	0.61	0.39
8	I want to be the one to consider (decide) the type of medication prescribed to me in psychiatric treatment.	0.43	0.06	-0.14	0.25	0.75
A resistance against a psychiatric visit ($\alpha=0.82$)						
4	I have resistance against seeing a psychiatrist, but I can go to a psychosomatic clinic.	-0.33	1.09	0.03	1.00	0.00
5	I have resistance against seeing a psychiatrist, but I can consult a psychotherapist.	0.22	0.69	0.12	0.66	0.34
Distrust of the effectiveness of psychiatric treatment ($\alpha=0.82$)						
12	I think that receiving medication is as important as receiving counseling.	0.03	0.06	1.00	1.00	0.00
9	I don't think that psychiatric treatment is effective.	-0.12	-0.01	-0.86	0.72	0.28

Table 3. Results of Categorical Factor Analysis

3.3 Factors That Influence Willingness to Seek Psychiatric Treatment

We conducted an exploratory study of factors that could impact on an individual's likelihood of seeking psychiatric treatment by studying the relationship between basic attributes and each category, as well as considering the total score for resistance to psychiatric treatment. Initially, we conducted a correlation

analysis based on age and resistance to psychiatric treatment and a positive correlation was found ($r=0.21$, $p<0.05$). This result indicated greater resistance to psychiatric treatment among those participants who were older. Afterward, the effect of gender was examined, revealing that women scored significantly higher than men in the following categories: “resistance toward psychiatric visits” ($t(55.6)=-3.10$, $p<0.001$), and “total score for resistance toward psychiatric treatment” ($t(44.3)=-2.11$, $p<0.05$). Next, when participants’ occupation was considered, we found that it significantly influenced scores for “resistance toward psychiatric visits” ($F(3.87)=4.29$, $p<0.01$), and “total score for resistance toward psychiatric treatment” ($F(3.86)=5.51$, $p<0.01$). As revealed by multiple comparisons, doctors had less resistance toward psychiatric treatment than nurses ($p<0.05$). Finally, no relationship was found between other elements, such as place of employment and coping methods.

4. Discussion

This research conducted an exploratory study of resistance toward psychiatric treatment among healthcare workers. Initially, we performed a factor analysis regarding healthcare workers’ resistance to psychiatric treatment. This analysis resulted in the extraction of three factors. The first factor was related to resistance to the psychotropic agents, so we named it “anxiety toward psychiatric medicine”. Several previous reports have suggested a variety of reasons that can cause poor adherence to psychiatric medicine, such as negative experience using psychotropic agents (Fortney et al., 2011) and concerns about dependence on psychotropic drugs (Chakraborty, Avasthi, Kumar, & Grover, 2009). Similar to these studies, our results might imply the presence of a sense of distrust, concern, and fear regarding psychiatric medication among Japanese healthcare workers. These results have not been observed in similar studies in Japan, but research conducted overseas has found that important factors related to poor adherence to psychiatric medicine included concerns regarding potential addiction to psychotropic drugs and the belief that sedation is their only effect (Hugo, Boshoff, Traut, Zungu-Dirwayi, & Stein, 2003; Boyd, Juanamarga, & Hashemi, 2015). A similar sense of resistant to psychotropic agents is frequently discussed as poor adherence to psychiatric treatment in the clinical setting. It might also imply the existence of feelings of distrust, concern, and fear for psychiatric medication among Japanese healthcare workers. The second factor related to healthcare workers’ resistance to psychiatric treatment were items implying resistance to psychiatry, so we named it as “resistance toward psychiatric visits”. It has been generally understood that the historical background of psychiatry in Japan particularly influences resistance toward psychiatric treatment (Griffiths et al., 2006; Thornicroft, Brohan, Rose, Sartorius, & Leese, 2009). Results from one study suggest that changing the name “psychiatric service” to something else is an effective approach for reducing stigma against psychiatric treatment (Hirosawa, Shimada, Fumimoto, Eto, & Arai, 2002). On the other hand, each item’s content in this factor suggested referring to professional mental health care without the words “psychiatric treatment”, such as psychological counseling or visiting a psychosomatic medical clinic. The last factor was related to insufficient effectiveness of psychiatric treatment, so it was named

“disbelief in the effectiveness of psychiatric treatment”. Concerning resistance toward psychiatric treatment, previous research has revealed that attitudes such as lack of belief in the effectiveness of treatment, and concern about what others will think if we visit a psychiatrist may account for distrusting the effectiveness of treatment and resistance toward psychiatric treatment that we observed in our study (Collins et al., 2004; Kido & Kawakami, 2013). Moreover, research conducted on healthcare workers and their perceptions of psychiatric treatment suggests that they may have concerns regarding its effectiveness and that there is a stigma against psychiatry (Knaak et al., 2017). These studies suggest that the three categories assessed in our study are appropriate.

We also analyzed the relationship between demographic characteristics, job categories, and methods for coping with stress using a scale for each factor. Only gender, age, and job categories were associated with resistance toward psychiatric visits. Concerning the differences between genders, it has been indicated that women have greater resistance toward seeking psychiatric treatment than men. A large-scale study conducted in the United States and Japan also showed that women find it more difficult than men to overcome the stigma of psychiatric treatment (Kido & Kawakami, 2013; Woodall et al., 2010). The result that healthcare workers had the same tendency than the general population regarding psychiatric visits might imply that the experience of working in a medical setting does not influence healthcare workers directly.

Our analysis indicated that there is a stronger resistance toward psychiatric visits in older age groups. A Japanese study that measured embarrassment about seeing a psychiatrist suggested that people over 65 years old were more likely to be embarrassed (Kido & Kawakami, 2013). As the level of embarrassment was lower among individuals between 35 and 49 years old, this suggests that as age increases the stigma against psychiatric services also intensifies. We believe that this result is reasonable because we conducted a research on attitudes toward people with mental disorders among healthcare workers and medical students in general hospitals, and this research revealed that older individuals express more negative attitudes toward people with mental disorders than younger individuals (Arvaniti et al., 2009). However, it has been suggested that interacting directly with people with mental disorders is effective in reducing stigma against psychiatric services (Thornicroft et al., 2015). As we consider the results mentioned above, we also believe that healthcare workers who have frequent opportunities to interact with people with mental disorders are more likely to present less resistance to psychiatric services than the general population. These findings imply the need for conducting effective strategies to reduce psychiatric stigma among older healthcare workers so they can request psychiatric treatment more easily for their own mental health care, assisting them also in accomplishing better clinical practice with psychiatric patients. Additionally, it will be necessary to conduct further research considering age, opportunities to interact with people with mental disorders, and opportunities to study mental disorders.

When we studied the differences among job categories, we found that doctors had lower levels of resistance toward psychiatric visits than nurses and individuals in other job categories. Previous

research has not presented a consistent viewpoint on this matter, as some studies have found that nursing students, nurses, and pharmacists generally accept psychiatric treatment (Corrigan et al., 2012; Einat & George, 2008), whereas other studies have reported that nurses regard mental disorders in a negative manner (Arvaniti, 2009). However, another study on stigma around mental disorders conducted among doctors, nurses, and medical technicians revealed that as the knowledge of mental disorders lessens, the stigma also intensifies (Aydin et al., 2003). On the contrary, educational interventions, as well as direct interactions, are considered to be effective in reducing stigma (Thornicroft et al., 2015). These previous studies may explain why we found lower resistance toward psychiatric treatment among doctors in comparison to people in other job categories.

Finally, we would like to mention the limitations and prospects of this study. First, data were collected during lectures held for healthcare workers. Therefore, although it would appear that there was no bias produced by the medical institution, the sample size was small. Future research should be conducted with a larger and more varied population. Next, there were several items that we excluded during the factor analysis that were among those that measured resistance toward psychiatric treatment. In particular, the item “stress at work can be relieved by oneself”, which assesses a cognitive factor that is very common among healthcare workers, was excluded. However, we could broadly characterize those individuals resistant to psychiatric services by adding six items classified in previous studies including “minimizing severity of problems”, “degree of distress and disruption of symptoms”, and “lack of awareness of available treatment” (Collins et al., 2004). Additionally, this study did not examine the frequency of interactions with people with mental disorders and the level of knowledge about psychiatric services. As we mentioned before, opportunities to interact with people with mental disorders and educational interventions are effective in reducing stigma against psychiatric services. In the future, it will be important to research the depth of knowledge and educational experience concerning mental disorders and their association with resistance to psychiatric treatment. Finally, this study aimed to examine resistance toward psychiatric treatment among healthcare workers; however, our results need to be compared with the attitudes of the general population to identify the specific factors that influence resistance toward treatment among healthcare workers. We anticipate a need for future research to resolve these issues as well as for expanding this research subject to the general public.

In conclusion, a main component of resistance to psychiatric treatment is related to the resistance toward the word “psychiatric”. It may be useful to avoid using the word “psychiatric” among people that belong to groups with high resistance to psychiatric treatment when suggesting that they consult a psychiatrist.

5. Conflict of Interest Statement

The authors declare no conflict of interest associated with this manuscript.

6. Acknowledgments

We would like to express our deepest appreciation to Y. Kunisato for the valuable and effective advice on statistical analysis, as well as to all our coworkers whose support and discussions helped throughout this study.

References

- Arvaniti, A., Samakouri, M., Kalamara, E., Bochtsou, V., Bikos, C., & Livaditis, M. (2009). Health service staff's attitudes towards patients with mental illness. *Social Psychiatry and Psychiatric Epidemiology*, 44(8), 658-665. <https://doi.org/10.1007/s00127-008-0481-3>
- Aydin, N., Yigit, A., Inandi, T., & Kirpinar, I. (2003). Attitudes of hospital staff toward mentally ill patients in a teaching hospital, Turkey. *International Journal of Social Psychiatry*, 49(1), 17-26. <https://doi.org/10.1177/0020764003049001544>
- Boyd, J. E., Juanamarga, J., & Hashemi, P. (2015). Stigma of taking psychiatric medications among psychiatric outpatient veterans. *Psychiatric Rehabilitation Journal*, 38(2), 132-134. <https://doi.org/10.1037/prj0000122>
- Chakraborty, K., Avasthi, A., Kumar, S., & Grover, S. (2009). Attitudes and beliefs of patients of first episode depression towards antidepressants and their adherence to treatment. *Social Psychiatry and Psychiatric Epidemiology*, 44(6), 482-488. <https://doi.org/10.1007/s00127-008-0468-0>
- Collins, K. A., Westra, H. A., Dozois, D. J. A., & Burns, D. D. (2004). Gaps in accessing treatment for anxiety and depression: Challenges for the delivery of care. *Clinical Psychology Review*, 24(5), 583-616. <https://doi.org/10.1016/j.cpr.2004.06.001>
- Corrigan, P. W., Druss, B. G., & Perlick, D. A. (2014). The impact of mental illness stigma on seeking and participating in mental health care. *Psychological Science in the Public Interest*, 15(2), 37-70. <https://doi.org/10.1177/1529100614531398>
- Corrigan, P. W., Morris, S. B., Michaels, P. J., Rafacz, J. D., & Rüsch, N. (2012). Challenging the public stigma of mental illness: A meta-analysis of outcome studies. *Psychiatric Services*, 63(10), 963-973. <https://doi.org/10.1176/appi.ps.201100529>
- Dewa, C. S., Loong, D., Bonato, S., Thanh, N. X., & Jacobs, P. (2014). How does burnout affect physician productivity? A systematic literature review. *BMC Health Services Research*, 14(1), 325. <https://doi.org/10.1186/1472-6963-14-325>
- Einat, H., & George, A. (2008). Positive attitude change toward psychiatry in pharmacy students following an active learning psychopharmacology course. *Academic Psychiatry*, 32(6), 515-517. <https://doi.org/10.1176/appi.ap.32.6.515>

- Fortney, J. C., Pyne, J. M., Edlund, M. J., Stecker, T., Mittal, D., Robinson, D. E., & Henderson, K. L. (2011). Reasons for antidepressant nonadherence among veterans treated in primary care clinics. *The Journal of Clinical Psychiatry*, 72(06), 827-834. <https://doi.org/10.4088/JCP.09m05528blu>
- Griffiths, K. M., Nakane, Y., Christensen, H., Yoshioka, K., Jorm, A. F., & Nakane, H. (2006). Stigma in response to mental disorders: A comparison of Australia and Japan. *BMC Psychiatry*, 6, 21. <https://doi.org/10.1186/1471-244X-6-21>
- Hirosawa, M., Shimada, H., Fumimoto, H., Eto, K., & Arai, H. (2002). Response of Japanese patients to the change of department name for the psychiatric outpatient clinic in a university hospital. *General Hospital Psychiatry*, 24, 269-274. [https://doi.org/10.1016/S0163-8343\(02\)00185-8](https://doi.org/10.1016/S0163-8343(02)00185-8)
- Hugo, C. J., Boshoff, D. E. L., Traut, A., Zungu-Dirwayi, N., & Stein, D. J. (2003). Community attitudes toward and knowledge of mental illness in South Africa. *Social Psychiatry and Psychiatric Epidemiology*, 38(12), 715-719. <https://doi.org/10.1007/s00127-003-0695-3>
- Jennings, B. M. (2008). Work stress and burnout among nurses: Role of the work environment and working conditions. *Agency for Healthcare Research and Quality (US)*. Retrieved from <http://www.ncbi.nlm.nih.gov/books/NBK2668/#ch26.s1>
- Kido, Y., & Kawakami, N. (2013). Sociodemographic determinants of attitudinal barriers in the use of mental health services in Japan: Findings from the World Mental Health Japan Survey 2002-2006. *Psychiatry and Clinical Neurosciences*, 67(2), 101-109. <https://doi.org/10.1111/pcn.12008>
- Knaak, S., Mantler, E., & Szeto, A. (2017). Mental illness-related stigma in healthcare: Barriers to access and care and evidence-based solutions. *Healthcare Management Forum*, 30(2), 111-116. <https://doi.org/10.1177/0840470416679413>
- Mata, D. A., Ramos, M. A., Bansal, N., Khan, R., Guille, C., Di Angelantonio, E., & Sen, S. (2015). Prevalence of depression and depressive symptoms among resident physicians: A systematic review and meta-analysis. *JAMA*, 314(22), 2373-2383. <https://doi.org/10.1001/jama.2015.15845>
- Ministry of Health, Labour and Welfare. (2013, July). Report on “Status of workers’ compensation paid towards brain and heart disorders and mental disorder”. In *FY2011-Number of workers’ compensation claims demanded for mental disorder at record high for third consecutive years-(Japanese)*. Retrieved from <http://www.mhlw.go.jp/english/new-info/2012.html>
- Parola, V., Coelho, A., Cardoso, D., Sandgren, A., & Apóstolo, J. (2017). Prevalence of burnout in health professionals working in palliative care: A systematic review. *JBIR Database of Systematic Reviews and Implementation Reports*, 15(7), 1905-1933. <https://doi.org/10.11124/IBISIR-2016-003309>
- Thornicroft, G., Brohan, E., Rose, D., Sartorius, N., & Leese, M. (2009). Global pattern of experienced and anticipated discrimination against people with schizophrenia: A cross-sectional survey. *The Lancet*, 373(9661), 408-415. [https://doi.org/10.1016/S0140-6736\(08\)61817-6](https://doi.org/10.1016/S0140-6736(08)61817-6)
- Thornicroft, G., Mehta, N., Clement, S., Evans-Lacko, S., Doherty, M., Rose, D., ... Henderson, C. (2015). Evidence for effective interventions to reduce mental-health-related stigma and

- discrimination. *The Lancet*, 387(10023), 1123-1132.
[https://doi.org/10.1016/S0140-6736\(15\)00298-6](https://doi.org/10.1016/S0140-6736(15)00298-6)
- Toh, S. G., Ang, E., & Kamala Devi, M. (2012). Systematic review on the relationship between the nursing shortage and job satisfaction, stress and burnout levels among nurses in oncology/haematology settings. *International Journal of Evidence-Based Healthcare*, 10(2), 126-141. <https://doi.org/10.1111/j.1744-1609.2012.00271.x>
- Van Beljouw, I., Verhaak, P., Prins, M., Cuijpers, P., Penninx, B., & Bensing, J., (2010). Reasons and determinants for not receiving treatment for common mental disorders. *Psychiatric Services*, 61, 250-257. <https://doi.org/10.1176/ps.2010.61.3.250>
- Wood, B. D., & Killion, J. B. (2007). Burnout among healthcare professionals. *Radiology Management*, 29, 30-34, 36-38. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/18283973>
- Woodall, A., Morgan, C., Sloan, C., & Howard, L. (2010). Barriers to participation in mental health research: Are there specific gender, ethnicity and age related barriers? *BMC Psychiatry*, 10, 103. <https://doi.org/10.1186/1471-244X-10-103>
- Yoshikawa, E., Taniguchi, T., Nakamura-Taira, N., Ishiguro, S., & Matsumura, H. (2017). Factors associated with unwillingness to seek professional help for depression: A web-based survey. *BMC Research Notes*, 10(1), 673. <https://doi.org/10.1186/s13104-017-3010-1>