1

THE VIEWS OF NON-PSYCHIATRIC MEDICAL SPECIALISTS ABOUT PEOPLE WITH SCHIZOPHRENIA

AND DEPRESSION.

Lorenza Magliano, Gennaro Ruggiero, John Read, Alessia Mancuso^a, Angela Schiavone, Annalisa Sepe

Community Mental Health Journal, in press (accepted 29.1.20)

ABSTRACT

This study explored the views of non-psychiatric medical specialists about people with schizophrenia and depression

and examined whether specialists' approach to these clients, and their perception of dangerousness and social distance,

differed by disorder. Non-psychiatric medical specialists working in community centers in Italy read either a

schizophrenia or depression description and then completed a questionnaire on their views about people with that

disorder. The schizophrenia-group (N=114) was more sure than the depression-group (N=97) that the patients should be

approached differently in outpatient specialized clinics like those where the respondents worked; are incapable of caring

for their open health; and are kept at distance by others. Perceived dangerousness did not significantly differ between

the two groups. These findings highlight the potential effects of attitudes on medical practice and outline the need to

educate non-psychiatric medical specialists on stigma as a strategy to reduce health discrepancies, particularly toward

people diagnosed with schizophrenia.

Keywords: stigma, community care, schizophrenia, depression, health professionals, prejudices

INTRODUCTION

People with mental disorders have greater morbidity and mortality due to physical health problems compared to the general population (Ashworth et al. 2017; De Hert et al. 2011a; Thornicroft 2011). Mental disorders are also associated with increased risk of hepatitis and HIV, tuberculosis, and poor dental health care (De Hert et al. 2011a). People diagnosed with schizophrenia have higher rates of metabolic diseases, cardiovascular problems, obesity, and osteoporosis (Leucht et al. 20007; Latoo et al. 2013; Vancampfort et al. 2015). In depression, higher prevalence of type 2 diabetes mellitus, stroke and myocardial infarction are observed (Fenton and Stower 2006; Latoo et al. 2013).

Among the strategies to improve physical health in people with mental disorders and reduce health care inequalities, a stronger collaboration between mental health professionals, general practitioners and Non-Psychiatric Medical Specialists (NPMS) has been suggested (De Hert et al. 2011b). However, even in medical services, there is prejudice and discrimination against people with mental disorders, which may negatively influence medical-patient relationships, and the accessibility and quality of treatment (De Hert et al. 2011a; Henderson et al. 2014; Mather et al. 2014). Sometimes, clinicians tend to associate physical complaints reported by these people with their psychiatric problems (van Nieuwenhuizen et al. 2013), and underestimate the severity of physical symptoms (Henderson 2014; Thornicroft et al. 2007). In non-psychiatric hospital wards, staff sometimes treat people with mental disorders with disrespect and keep them apart from other hospitalized patients (Giandinoto et al. 2018; Harangozo et al. 2014). In the community, general practitioners are sometimes skeptical about the adherence of people with mental disorders to medical treatments. Moreover, some general practitioners are reluctant to refer clients with mental disorders to NPMS for more in-depth clinical evaluations (Corrigan et al. 2014; Sullivan et al. 2015). Studies in primary care settings reveal clinicians' more negative attitudes towards people diagnosed with schizophrenia than those with depression (Reavley et al. 2014; Lam et al. 2013; Nordt et al. 2006; Schomerus et al. 2013). A study on the attitudes of 256 primary care physicians towards clients with diabetes and comorbidity for mental disorders or eczema (Welch et al. 2015) found more negative attitudes towards clients with schizophrenia with bizarre affect than towards clients with schizophrenia with normal affect, depression or eczema. The study also revealed that physicians tended to refer to other sources of information when dealing with clients with schizophrenia with bizarre affect. Furthermore, physicians often alerted colleagues about clients' mental disorders, influencing colleagues' expectations (Welch et al. 2015). A study on views about schizophrenia among 387 general practitioners in Italy (Magliano et al. 2017a) found that more than 75% of them believed that people with this disorder are unreliable in referring their mental and physical problems to doctors. Furthermore, 70% of respondents believed that people with schizophrenia should be supervised when in non-psychiatric

hospital wards. In addition, 85% of general practitioners stated that people with schizophrenia are kept at distance by others, and 87% thought that these persons are dangerous to others.

While a number of studies have examined views about people with mental disorders among general practitioners, little data is available on the beliefs of NPMS. Data on NPMS beliefs cannot be either automatically drawn from those of general practitioner studies, given the different intensity of contacts and familiarity with these clients, nor from studies among psychiatrists, since level of clinical expertise is different.

In this paper we report the findings of a study examining views about schizophrenia and depression in a sample of NPMS working in community outpatient centers in Italy. Eligible NPMS were randomly invited to read either a clinical description of schizophrenia or depression and then to complete a questionnaire on their views of "People with a disorder like that reported in the description" (PWD). The NPMS' views reported in this article were about:

- the capacities of PWD to refer their own health problems to clinicians
- the capacities of PWD to take care of their own physical illnesses
- how PWD should be approached in specialized community services like those where the NPMS worked
- the perceived dangerousness of PWD
- the perceived social distance from PWD.

We predicted that NPMS had more negative views of people diagnosed with schizophrenia than those with depression.

METHODS

Study design and procedure

The study was approved by the Research Ethical Board of the Department of Psychology (University of Campania "Luigi Vanvitelli", Caserta, Italy) and authorized by the Naples Local Health Authority. Data was collected from January to December 2017.

Eligible participants were registered NPMS (medical, surgical and diagnostic/laboratory clinicians) working in the outpatient specialized community centers of the Primary Care Units of the Naples Central Health Authority. Following the agreement of the Medical Director of the Primary Care Units, eligible participants were contacted personally by a researcher and invited to participate in a study on their views about mental disorders. Those who accepted were asked to complete a revised version of the Opinions on mental disorders Questionnaire (OQ) after reading, at random, a clinical description of either schizophrenia (Appendix A) or depression (Appendix B). The questionnaire was self-administered either in the presence of the researcher at the NPMS office or in his/her absence, according to their preferences. At the same time, information on participants' demographic variables and professional background was collected. Of the 283

registered medical specialists working in the outpatient community centers, 255 were personally approached (90.1%) and 28 were not (reasons: lack of agreement by the Medical Director of the Primary Care Unit, n=20, untraceable, n=8).

Sample characteristics

Of the 255 NPMS approached, 211 (82.7%) agreed to participate and completed the questionnaire. Reasons for non-participation were: lack of time -16; no contact with people with mental disorders - 9; not interested - 7; no opinion regarding people with mental disorders - 5; unknown - 4; unwilling to give such information to people outside the health care organization - 2; disagreement with research aims - 1. Of the 211 respondents, 114 NPMS completed the OQ after reading a clinical description of schizophrenia and 97 completed the same questionnaire after reading a clinical description of depression. In both groups, most participants were male (schizophrenia - 68.4%; depression - 72.2%) and married (89.5% and 87.6% respectively). The average ages were 57.4 (±5.9 SD) years and 58.6 (±4.2 SD) years respectively. The following percentages worked in each of three settings: medical outpatient clinics - schizophrenia group 48.3%, depression group 50.5%; surgical outpatient clinics - 33.3% and 35.1%; diagnostic/laboratory outpatient clinics - 18.4% and 14.4%.

In both the groups, nearly all participants had achieved a MD degree more than 20 years previously (94.6% and 99.0%) and reported having treated at least one patient with the disorder (84.1% and 90.6%). The two diagnostic groups were comparable in all these socio-demographic variables and professional background characteristics.

Assessment instrument

Data were collected using the revised version of the OQ (Magliano et al. 2017a) and two ad hoc-devised additional subscales. OQ is a self-report tool including: a) 16 yes/no items on beliefs of bio-psycho-social factors involved in the development of the disorder; b) 4 yes/no items on beliefs about which professionals should be involved in the treatment of PWD; c) 23 items, grouped into 10 subscales, addressing beliefs about: 1-3) usefulness of drugs and psychological therapies and need of long-term pharmacological treatments; 4) possibility of recovery; 5) insight of PWD about their own mental health problems; 6) capacity of PWD to report their health conditions to medical doctors; 7) perception of others' need for social distance from PWD; 8) dangerousness; 9) discriminatory approach to PWD in non-psychiatric hospital wards; 10) difficulties of PWD in having romantic relationships. Section c items are rated on a 3-point scales (1= "not true", 2 = "partially true", 3 = "completely true"). The psychometric properties of section c of the original OQ were found to be satisfactory when tested on a sample of 387 GPs (Magliano et al. 2017a). In order to specifically investigate the specialists' approach to PWD in their own clinical practice, two ad-hoc devised subscales examining respondent's views were added, about: 11) capacities of PWD to take care of own physical health problems; and 12) the behaviours to be adopted with PWD in outpatient clinics like the one where the respondent worked (same

rating scale as for OQ section c items). For the purpose of this article, subscales 6, 7 and 8 of OQ section c and additional subscales 11-12 were analyzed (subscales' Cronbach's alpha computed for the current study data = 0.58 - 0.79).

Statistical analyses

Multivariate Analysis of Variance (MANOVA) was used to compare the two NPMS groups (schizophrenia and depression - independent variable) in their views about: the capacities of PWD to report their health conditions to medical doctors (mean score of OQ's subscale n. 6); the capacities of PWD to take care of their own physical health problems (mean score of additional subscale n.11); the behaviours to be adopted with PWD in community clinics (mean score of additional subscale n. 12); and the perception of dangerousness and the social distance from PWD (mean score of OQ's subscales n. 7 and n. 8). In order to better understand what – specifically – accounted for any statistically significant subscale difference, items were also individually analyzed using Mann-Whitney U tests with Bonferroni correction. Statistical significance was set at p < 0.05. Analyses were performed using IBM SPSS Statistics for Windows, version 21.0.

RESULTS

Descriptive results

As shown in Table 1, 12.6 % of the NPMS thought it was 'completely true' that "PWD are reliable in referring their own physical problems to a doctor", and 24.2% were completely sure that "PWD with a physical health problem tend to neglect it". Furthermore, 41.7% of the participants completely believed that "In an outpatient clinic like this, PWD should always be accompanied (for instance, by a relative ").

Overall, 19.2% of the NPMS thought it was completely true that "PWD are dangerous to themselves", and 7.3% were completely certain that "PWD are dangerous to others" (Table 2). Moreover, 28.7% of the participants were completely sure that "PWD are unpredictable", and 29.8% completely agreed that "PWD are kept at a distance by others". Finally, 50.5% of the specialists were sure that "people do not know how to behave with PWD" and 40.4% completely believed that "people are frightened by PWD".

Differences in specialists' views between the two group

Multivariate analysis of variance performed on the five subscales (Table 3), revealed a significant effect of the group on three subscales. In particular, the schizophrenia group produced more negative mean scores than the depression group in the subscales: PWD capacity to take care of their own physical health problems; views on the

approach to be adopted with these clients in community outpatient clinics; and perception that others keep PWD at a distance.

Single-item analysis revealed that compared to the depression group, in the schizophrenia group a higher percentage of NPMS believed that "PWD are incapable of adhering to therapies for physical problems" ("completely true": 22.4% vs. 10.9%; Mann-Whitney U test: 3761, p<.05 with Bonferroni correction). Moreover, in the schizophrenia group, more NPMS were sure that "PWD need always to be accompanied when attending outpatient clinics (for instance, by a relative)" (51.4% vs. 30.5%; M-W U test: 4054, 5, p<.05). Finally, compared to depression group, in the schizophrenia group a higher percentage of NPMS firmly believed that "PWD are kept at distance by the others (41.2% vs. 16.9%; M-W U test: 3376, p<.05) and that "people are frightened by PWD" (51.9% vs. 27.2%; M-W U test: 3354, p<.05).

DISCUSSION

The results of this study show that NPMS have both similarities and differences in their views of people diagnosed with schizophrenia and depression. Specialists seem to have similar level of skepticism regarding the capacities of these clients to report their health problems to doctors. Specifically, only 13.4% of the schizophrenia group and 11.7% of the depression group believe that PWD are capable of referring their own physical problems to doctors. The fact that only a few specialists fully acknowledge this competence to PWD is of concern, both clinically and from the client's perspective. Clinically, skepticism about clients' capacities may lead the specialist to misinterpret or underestimate physical problems in people with mental disorders. This situation, in its turn, may led to inaccurate diagnoses and inappropriate medical treatments, and it may also limit the therapeutic options offered to such clients (Thornicroft et al. 2007). From a client perspective, perception of not being believed by doctors – sometimes revealed by statements such as "you have no physical problem, it's just anxiety" – may discourage clients with a mental disorder themselves from communicating their own health problems to doctors, leading to increased distress and delays in seeking for medical help (Holfstall et al. 2010).

The lack of difference between the two groups in dangerousness perception is somewhat unexpected. An interpretation of the similarity in dangerousness perception between the two groups could be that social desirability influenced NPMS so as not to want to appear to be stereotyping schizophrenia, while locating the dangerousness in the perception of others. However, the lack of correlation of NPMS perception of dangerousness in schizophrenia with social distance from people with this disorder by the others (r=. 18, p<.07) does not seem to support this interpretation. This result suggest that specialists may be less prejudiced than predicted by previous studies and/or that they are aware of the public negative reactions to people with psychosis, as shown by the higher perception of social distance by the others found in the schizophrenia group (Lien et al. 2019; Pescosolido et al. 2013; Wood et al. 2014).

One may also wonder if NPMS have less prejudices toward people with schizophrenia than other medical doctors. An opportunistic comparison of schizophrenia group's specialists with a previously tested sample of 192 schizophrenia group GPs working in the same geographical area and assessed in 2014 (Magliano et al. 2017a), revealed that NPMS are, on average, more skeptical than GPs regarding the capacities of clients with schizophrenia to report their health problems to doctors $(1.91\pm0.46 \text{ vs.}2.08\pm0.50., \text{ F}(1,304) 8.89, \text{ p<.}003)$, and that NPMS and GPs are similar in the level of perceived dangerousness $(1.91\pm0.46 \text{ vs.}2.08\pm0.59, \text{ F}(1,304) 3.48, 1,304 \text{ p<.}06)$. It is likely that the higher confidence in the capacities of people with schizophrenia to report their health problems found among GPs depend on their familiarity and long-term relationship with the clients. Moreover, when NPMS schizophrenia group were compared with 32 Italian psychiatrists (subsample drawn from Magliano et al., 2017b) in the perception of dangerousness against the other of people with schizophrenia, NPMS appears more frequently convinced of that (79.2% vs. 37.5%, χ^2 20.6, df 2, p<.0001). These findings are in line with previous studies showing that mental health professionals have lower perception of dangerousness than other health professionals (Jorm et al. 2012; Reavley et al. 2014).

Specialists considered people with schizophrenia to be less capable than those with depression of taking care of their own physical health problems, mainly in their capacity to adhere to treatments. This is possibly true to some extent and it may partially account for the tendency of the specialists to approve of treating clients with schizophrenia differently from the others in some aspects of their clinical practice. In particular, specialists' concern about clients' capacities of taking care of their health problems could in part explain why the 51.4% of schizophrenia group vs. 30.5% of depression group are convinced that PWD should be always be accompanied when in outpatient settings. Conversely, the percentages of specialists completely sure that these clients should be separated by other patients or be always supervised – two items which may be read as mainly related to dangerousness perception – are quite low in both the groups. Moreover, specialists attributed to other people more desire for social distance from people with psychotic symptoms that from those with depressive symptoms. This is mainly supported by the higher percentage of respondents in the schizophrenia group who are convinced that "others" keep the patients at a distance (41.2% vs. 16.9%) and are scared by these people (51.9% vs. 27.2%). It is quite possible that these doctors are accurately reporting the higher public's prejudices on people with schizophrenia compared to those on more socially accepted mental health problems, as depression (Lien et al. 2019; Pescosolido et al. 2013; Wood et al. 2014).

These findings highlight the devaluation to which some people with mental disorders, especially those with psychosis, are sometimes exposed to even in medical settings and the potential influence of prejudices on clinical practice. These differences may in part reflect the messages conveyed by the media contributing to social acceptance of depression and to discrimination of schizophrenia. Depression is commonly used with reference to the human experience of sadness and, importantly, to surmountable adversities (Magliano et al., 2017c). Conversely, schizophrenia is often used as synonymous

with incoherence, in news reporting violent crimes, and as an incurable brain disease (Magliano and Marassi, 2018). These results outline the need to educate specialists about the effects of stigma on clinical practice (Magliano et al. 2014; Ukok et al. 2006) and to improve specialists' communication skills with people with mental health problems (Lakin et al. 2016). At the same time, clients with mental disorders should be supported in the efforts to improve the abilities to assertively communicate their needs to health professionals.

Strengths and limitations

This is the first study carried out in Italy that specifically investigated the impact of stigma on clinical practice among NPMS. The comparison of two diagnostic groups allowed us to better understand the differential weight of stigma related to schizophrenia and depression in specialized clinical practice. The inclusion of a relatively large sample selected in the same geographic areas of GPs' previous study, and the use of a self-reported validated questionnaire may facilitate the replication of the study in other health care contexts and the comparisons with previous evidence (Magliano et al. 2017a). The high participation rate (83%) is a further strength of the study, also suggesting that specialists are interested in caring for PWD. The following limitations, some of which also found in past research on this topic, should be taken into account: a) the quite high mean age of participants, limiting the generalisability of the results to younger doctors; b) the survey focused on the *opinions* of medical specialists, a condition which may not reflect specialists' actual behaviours with PWD in clinical practice; c) the lack of a control group of people without mental disorders, which may help in the interpretation of some results. We will address some of these limitations in further studies at their planning stage.

ACKNOWLEDGMENT

The authors thank the 211 NPMS for giving us their time.

CONFLICT OF INTEREST

None.

GRANT The study was supported by a grant from the University of Campania "Luigi Vanvitelli", Caserta, Italy (approval n. 6, 17/04/2017).

APPENDIX A

Some people sometimes seem unable to distinguish between things that really happen and are experienced by other people, and things that happen only in their mind. Sometimes, these people believe or say things that seem bizarre or absurd to other people, or hear voices, smell things, or see images that other people do not. Sometimes, these people may have difficulty expressing their feelings or behaving appropriately (for instance, they may cry in response to a positive event, or may appear happy following an unpleasant one), or they may remain shut up in their house for a long time, or talk very little or not at all. They behave as if they lived in a world of their own, apparently without interest in anything or anybody. Sometimes they may have muddled thoughts, may invent odd or incomprehensible words, may lose the thread of the speech, or they may jump from one issue to another with no apparent reason.

APPENDIX B

Some people sometimes feel sad, down, unable to feel pleasure, or to have interest for those activities they liked in the past. Sometimes, these people feel incompetent, may believe to be derided by the others, and make themselves feel guilty for trivial things. These people may have no hope for future, and when their feelings of sadness and being worthless become unbearable, they may decide to stop living. Sometimes, these people may have difficulties in eating and sleeping regularly, and may feel poor concentrated or physically tired. Other times, they may feel irritable and get annoyed with the others for unimportant things.

REFERENCES

- Ashworth, M., Schofield, P., & Das-Munshi, J. (2017). Physical health in severe mental illness. *British Journal of General Practice*, 67(663), 436-37. https://doi.org/10.3399/bjgp17X692621
- Corrigan, P. W., Mittal, D., Reaves, C. M., Haynes, T. F., Han, X., Morris, S., & Sullivan, G. (2014). Mental health stigma and primary health care decisions. *Psychiatry Research*, 218(1-2), 35-38. https://doi.org/10.1016/j.psychres.2014.04.028
- De Hert, M., Correll, C. U., Bobes, J., Cetkovich-Bakmas, M., Cohen, D., Asai, I., et al. (2011a). Physical illness in patients with severe mental disorders. I. Prevalence, impact of medications and disparities in health care. *World Psychiatry*, 10(1), 52-77. https://doi.org/10.1002/j.2051-5545.2011.tb00014.x

- De Hert, M., Cohen, D., Bobes, J., Cetkovich-Bakmas, M., Leucht, S., Ndetei, D. M., et al. (2011b). Physical illness in patients with severe mental disorders. II. Barriers to care, monitoring and treatment guidelines, plus recommendations at the system and individual level. *World Psychiatry*, 10(2), 138-151. https://doi.org/10.1002/j.2051-5545.2011.tb00036.x
- Fenton, W. S., & Stover, E. S. (2006). Mood disorders: Cardiovascular and diabetes comorbidity. *Current Opinion Psychiatry*, 19(4), 421-427. https://doi:10.1097/01.yco.0000228765.33356.9f
- Giandinoto, J. A., Stephenson, J., & Edward, K. L. (2018). General hospital health professionals' attitudes and perceived dangerousness towards patients with comorbid mental and physical health conditions: Systematic review and meta-analysis. *International Journal of Mental Health Nursing*, 27(3), 942-955. https://doi.org/10.1111/inm.12433
- Harangozo, J., Reneses, B., Brohan, E., Sebes, J., Csukly, G., López-Ibor, J. J., et al. (2014). Stigma and discrimination against people with schizophrenia related to medical services. *International Journal of Social Psychiatry*, 60(4), 359-366. https://doi.org/10.1177/0020764013490263
- Henderson, C., Noblett, J., Parke, H., Clement, S., Caffrey, A., Gale-Grant, O., et al. (2014). Mental health-related stigma in health care and mental health-care settings. *The Lancet Psychiatry*, 1(6), 467-482. https://doi.org/10.1016/S2215-0366(14)00023-6
- Horsfall, J., Cleary, M., & Hunt, G.E. (2010). Stigma in mental health: Clients and Professionals. *Issues in Mental Health Nursing*, 31(7), 450-455. https://doi.org/10.3109/01612840903537167
- Jorm, A. F., Reavley, N. J., & Ross, A. M. (2012). Belief in the dangerousness of people with mental disorders: a review.

 Australian and New Zealand Journal of Psychiatry, 46(11):1029-1045. https://doi.org/10.1177/0004867412442406
- Lakin, J. R., Block, S. D., Billings, J. A., Koritsanszky, L. A., Cunningham, R., Wichmann, L., et al. (2016). Improving communication about serious illness in primary care: A review. *JAMA Internal Medicine*, 176(9), 1380-1387. http://doi:10.1001/jamainternmed.2016.3212
- Lam, T. P., Lam, K. F., Lam, E. W., & Ku, Y. S. (2013). Attitudes of primary care physicians towards patients with mental illness in Hong Kong. *Asia-Pacific Psychiatry*, *5*(1), E19-E28. https://doi.org/10.1111/j.1758-5872.2012.00208.x
- Latoo, J., Mistry, M., & Dunne, F. J. (2013). Physical morbidity and mortality in people with mental illness. *British Journal of Medical Practitioners*, 6(3), a621. https://www.bjmp.org/files/2013-6-3/bjmp-2013-6-3-a621.pdf
- Leucht, S., Burkard, T., Henderson, J., Maj, M., & Sartorius, N. (2007). Physical illness and schizophrenia: A review of the literature. *Acta Psychiatrica Scandinavica*, 116(5), 317-333. https://doi.org/10.1111/j.1600-0447.2007.01095.x
- Lien, Y. J., & Kao, Y.C. (2019). Public beliefs and attitudes toward schizophrenia and depression in Taiwan: A nationwide survey. *Psychiatry Research*, 273,435-442. https://doi.org/10.1016/j.psychres.2019.01.062

- Magliano, L., Read, J., Sagliocchi, A., Oliviero, N., D'Ambrosio, A., Campitiello, F., et al. (2014). "Social dangerousness and incurability in schizophrenia": Results of an educational intervention for medical and psychology students. *Psychiatry Research*, 219(3), 457-463. https://doi.org/10.1016/j.psychres.2014.06.002
- Magliano, L., Strino, A., Punzo, R., Acone, R., Affuso, G., & Read, J. (2017a). Effects of the diagnostic label 'schizophrenia', actively used or passively accepted, on general practitioners' views of this disorder. *International Journal of Social Psychiatry*, 63(3), 224-234. https://doi.org/10.1177/0020764017695353
- Magliano, L, Read, J, & Affuso, G. (2017b). Predictors of Staff Attitudes Toward Schizophrenia Treatments. *Psychiatric Services*, 68(12),1321. https://doi.org/10.1176/appi.ps.201700257
- Magliano, L., Schioppa, G., Costanzo, R., Petrillo, M., & Read, J. (2017c). The Opinions of Italian Psychology Students

 About People Diagnosed with Depression and Schizophrenia: A Comparative Study. *Journal of Psychosocial Rehabilitation and Mental Health*, 4(2), 147-157. https://doi.org/10.1007/s40737-017-0087-8
- Magliano, L., & Marassi, R. (2018). "Schizophrenia" and "psychosis" in Italian national newspapers: Do these terms convey different messages? *Schizophrenia Research*, 197, 611-612. https://doi.org/10.1016/j.schres.2018.02.021
- Mather, B., Roche, M., & Duffield, C. (2014). Disparities in treatment of people with mental disorder in non-psychiatric hospitals: A review of the literature. *Archives of Psychiatric Nursing*, 28(2), 80-86. https://doi.org/10.1016/j.apnu.2013.10.009
- Nordt, C., Rössler, W., & Lauber, C. (2006). Attitudes of mental health professionals toward people with schizophrenia and major depression. *Schizophrenia Bulletin*, 32(4), 709-714. https://doi.org/10.1093/schbul/sbj065
- Pescosolido, B. A., Medina, T. R., Martin, J. K., & Long, J. S. (2013). The "backbone" of stigma: Identifying the global core of public prejudice associated with mental illness. *American Journal of Public Health*, 103(5), 853-860. https://doi.org/10.2105/AJPH.2012.301147
- Reavley, N. J., Mackinnon, A. J., Morgan, A. J., & Jorm, A. F. (2014). Stigmatising attitudes towards people with mental disorders: A comparison of Australian health professionals with the general community. *Australian & New Zealand Journal of Psychiatry*, 48(5), 433-441. https://doi.org/10.1177/0004867413500351
- Schomerus, G., Matschinger, H., & Angermeyer, M. C. (2013). Continuum beliefs and stigmatizing attitudes towards persons with schizophrenia, depression and alcohol dependence. *Psychiatry Research*, 209(3), 665-669. https://doi.org/10.1016/j.psychres.2013.02.006
- Sullivan, G., Mittal, D., Reaves, C. M., Haynes, T. F., Han, X., Mukherjee, S., et al. (2015). Influence of schizophrenia diagnosis on providers' practice decisions. *Journal of Clinical Psychiatry*, 76, 1068-1074. https://doi.org/10.4088/JCP.14m09465
- Thornicroft, G., Rose, D., & Kassam, A. (2007). Discrimination in health care against people with mental illness. *International Review of Psychiatry*, 19(2), 113-122. https://doi.org/10.1080/09540260701278937

- Thornicroft, G. (2011). Physical health disparities and mental illness: the scandal of premature mortality. *The British Journal of Psychiatry*, 199(6),441-442. https://doi.org/10.1192/bjp.bp.111.092718
- Uçok, A., Soygür, H., Atakli, C., Kuscu, K., Sartorius, N., Duman, Z. C., et al. (2006). The impact of antistigma education on the attitudes of general practitioners regarding schizophrenia. *Psychiatry and Clinical Neurosciences*, 60(4), 439–443. https://doi.org/10.1111/j.1440-1819.2006.01529.x
- Vancampfort, D., Rosenbaum, S., Ward, P. B., & Stubbs, B. (2015). Exercise improves cardiorespiratory fitness in people with schizophrenia: A systematic review and meta-analysis. *Schizophrenia Research*, 169(1-3), 453-457. https://doi.org/10.1016/j.schres.2015.09.029
- van Nieuwenhuizen, A., Henderson, C., Kassam, A., Graham, T., Murray, J., Howard, L. M., & Thornicroft, G. (2013). Emergency department staff views and experiences on diagnostic overshadowing related to people with mental illness. *Epidemiology and Psychiatric Sciences*, 22(3), 255-262. https://doi.org/10.1017/S2045796012000571
- Welch, L. C., Litman, H. J., Borba, C. P., Vincenzi, B., & Henderson, D. C. (2015). Does a physician's attitude toward a patient with mental illness affect clinical management of diabetes? Results from a mixed-method study. *Health Services Research*, 50(4), 998-1020. https://doi.org/10.1111/1475-6773.12267
- Wood, L., Birtel, M., Alsawy, S., Pyle, M., & Morrison, A. (2014). Public perceptions of stigma towards people with schizophrenia, depression and anxiety *Psychiatry Research*, 220(1-2), 604-608. https://doi.org/10.1016/j.psychres.2014.07.012