## PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (**http://bmjopen.bmj.com/site/about/resources/checklist.pdf**) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

## ARTICLE DETAILS

| **TITLE (PROVISIONAL)** | Discrimination in the workplace, reported by people with major depressive disorder: Cross-sectional study in 35 countries. |
|---|---|
| **AUTHORS** | Brouwers, Evelien; Mathijssen, Jolanda; Van Bortel, Tine; Knifton, Lee; Wahlbeck, Kristian; Audenhove, Chantal; Kadri, Nadia; Chang, Chih-Cheng; Goud, Ramakrishna; Ballester, Dinarte; Tofoli, Luis Fernando; Bello, Ricardo; Monteiro, Maria Fatima; Zaeske, Harald; Milacic, Ivona; Ucok, Alp; Bonetto, Chiara; Lasalvia, Antonio; Thornicroft, Graham; van Weeghel, Jaap |

## VERSION 1 - REVIEW

| **REVIEWER** | Heather Stuart<br>Queen's University, Kingston, Ontario, Canada |
|---|---|
| **REVIEW RETURNED** | 24-Sep-2015 |

| **GENERAL COMMENTS** | This is an interesting paper in an area that is of immense importance to the field. Few studies examine discrimination experienced by individuals with a mental illness or look at specific diagnostic groups. As members of the general public tend to stereotype diagnostic categories differently, it is important to examine discrimination experiences within specific diagnostic groups. The results should be of considerable importance to the journal's readership. The following suggestions may strengthen the paper.<br><br>Methods:<br>• DSM criteria used to identify clinical cases of depression. As the DSM system is largely North American based, it would be interesting to know how the DSM criteria were applied in this study.<br>• Was there any attempt to identify 'typical' clients of the service to enhance transferability of results?<br><br>Table 1:<br><br>• The categories used to code education (particularly lower education) are extremely broad, ranging from no education to a vocational qualification—reflecting qualitatively different levels. Is there any reason for this?<br>• To make it easier to replicate this analysis, it would be helpful to see the range of HDI scores used to define "very high", "high", etc.<br><br>Figure 1:<br>• It would be helpful to see the confidence intervals for the percent on the figure (using bar lines) as this would assist the reader in highlighting statistically significant differences.<br><br>Table 3:<br>• Remind the reader in the title how work status was coded. I'm assuming it was employed (full time /part time/volunteer) vs unemployed (looking and not looking), but I'm not sure. Also, I'm not |
|---|---|

BMJ Open: first published as 10.1136/bmjopen-2015-009961 on 23 February 2016. Downloaded from http://bmjopen.bmj.com/ on April 22, 2024 by guest. Protected by copyright.

| | |
|---|---|
| | sure if you are calculating the odds of being unemployed compared to the odds of being employed or vice versa. I could guess, but it should be specified in the title.<br>• In some parts of the table a reference category is identified and in other parts it isn't. Suggest that this be standardized showing a reference category for each variable.<br>• HDI doesn't appear to be used in the multi-variable model. Some explanation of this would be helpful. It could have been added using dummy codes.<br><br>References:<br>• Consider adding the paper by Krupa, Kirsh, Cockburn, and Gewurtz; Understanding the stigma of mental illness in employment. It offers a useful grounded theory model that may be useful to the background literature. |

| | |
|---|---|
| **REVIEWER** | Claire Henderson<br>King's College London<br>UK<br><br>Professor Thornicroft is a colleague in my department and was my PhD supervisor |
| **REVIEW RETURNED** | 19-Oct-2015 |

| | |
|---|---|
| **GENERAL COMMENTS** | Introduction<br>The background states that there is a lack of literature on discrimination among people with MDD. They omit to refer to one of the studies by this group (LaSalvia et al) and also to the literature of experiences within the workplace of people with mental health problems, many of which concern experiences of depression. Much of this work is qualitative and so provides data on what kind of discriminatory experiences people have, eg Employee decision-making about disclosure of a mental disorder at work.<br>Toth KE, Dewa CS.<br>J Occup Rehabil. 2014 Dec;24(4):732-46. doi: 10.1007/s10926-014-9504-y.<br>The web of silence: a qualitative case study of early intervention and support for healthcare workers with mental ill-health.<br>Moll SE.<br>BMC Public Health. 2014 Feb 8;14:138. doi: 10.1186/1471-2458-14-138.<br><br>Depression in the Profession: Social Workers' Experiences and Perceptions<br>Nicky Stanley, Jill Manthorpe and Maureen White British Journal of Social Work (2006), 1 of 18<br>doi:10.1093/bjsw/bcl058<br>Brohan E, Henderson C, Wheat K, Malcolm E, Clement S, Barley EA, Slade M and Thornicroft G. Systematic review of beliefs, behaviours and influencing factors associated with disclosure of a mental health problem in the workplace. BMC Psychiatry, 12:11, 2012.<br>Brohan E, Evans-Lacko S, Henderson C, Murray J, Slade M and Thornicroft G. Disclosure of a mental health problem in the employment context: Qualitative study of beliefs and experiences. Epidemiology and Psychiatric Sciences, Sep;23(3):289-300, 2014.<br><br>Methods |

BMJ Open: first published as 10.1136/bmjopen-2015-009961 on 23 February 2016. Downloaded from http://bmjopen.bmj.com/ on April 22, 2024 by guest. Protected by copyright.

| | |
|---|---|
| | Sampling is defined as purposive. This appears to be the case for site selection but it should not apply to the sampling of the 25 people at each site. This appears to have been convenience sampling but this needs clarification, and information about the response rate would be useful. This could most usefully be given as an overall rate and as a range across the sites.<br><br>Was being employed either in the past or currently an inclusion criterion? This is important for the understanding of both experienced and anticipated discrimination. If not, did the rates of employment experience differ much across sites?<br><br>The stigma resistance subscale is often excluded from the total because of its relatively weak psychometric properties and poor association of 4/5 items with the construct of internalised stigma. The use of the total would therefore be worth justifying.<br><br>The paper would be clearer if the items used for the experienced discrimination analysis were given in the methods and if experienced discrimination were referred to as eg. experienced workplace discrimination throughout. This is important since overall discrimination as measured using the same instrument has previously been shown to be negatively associated with employment.<br><br>The comment in the discussion about legislation not addressing self stigma implies legislation will be perfectly implemented and that everyone will have easy access to eg employment tribunals. Equality legislation applies to disability due to mental illness in all EU countries but clearly the rates of experienced discrimination are still high in this sample. Please reconsider this sentence. |

| | |
|---|---|
| **REVIEWER** | Jessica E. Hurley<br>The University of Arkansas at Little Rock. |
| **REVIEW RETURNED** | 30-Oct-2015 |

| | |
|---|---|
| **GENERAL COMMENTS** | This is a very well designed study that has been beautifully crafted into a clearly written article. The topic is a very needed one. On page 4 line 18, there is a typo in the Strengths and Limitations section under the second bullet. On page 5 line 15, there is a run on sentence in the first paragraph. It should read: Several factors cause this. Some of which... Very concise yet thorough Introduction with well-justified research questions. Solid Methods section. On page 8 line 54 there is a typo--multivariable should be multivariate. Very appropriate choice of statistical analyses for study design and research question. Very clearly written Results section. Very informative and impactful Discussion section that flows well from the study's mechanics. The limitations and conclusions in this section are well chosen. Excellent work overall! |

## VERSION 1 – AUTHOR RESPONSE

Reviewer 1.

Ad 1. Methods: DSM criteria used to identify clinical cases of depression. As the DSM system is largely North American based, it would be interesting to know how the DSM criteria were applied in

BMJ Open: first published as 10.1136/bmjopen-2015-009961 on 23 February 2016. Downloaded from http://bmjopen.bmj.com/ on April 22, 2024 by guest. Protected by copyright.

the study.
>> The researchers at all sites were instructed to apply the DSM criteria in the same, original way, namely ‘by the book’. This sentence has now been added to the manuscript under ‘study design’.

Ad 2. Was there any attempt to identify ‘typical’ clients of the service to enhance transferablilty of the results?
>> Within centres, site directors were asked to identify a minimum of 25 participants who were, in their judgment, reasonably representative (as a group) of all people with a diagnosis of MDD attending specialist mental health services (either outpatient or day-care in both the public and private sectors in the local area). The minimum number of 25 for each site was defined for feasibility issues, particularly for non European sites with no grant support. This method was intended to allow local staff to take into account the specific local service configuration and to draw participants from the whole range of appropriate local services. Staff in each site ensured that the sample had a spread across adult age range [young people (18-25), working years (25-65), older adults (≥65)] and clear representation of female participants as MDD is twice as prevalent in women as men. This information has now been added to the ‘study design’ paragraph of the methods section.

Ad 3. Table 1: The categories used to code education (particularly lower education) are extremely broad, ranging from no education to vocational qualification-reflecting qualitatively different levels. Is there any reason for this?
>> Indeed, these levels were very broad, as we expected that especially education levels across high and low income countries would be difficult to compare. Despite this, we believed that it was a variable that was too important to leave out, for which reason this very broad distinction was chosen.

Ad 4: To make it easier to replicate this analysis, it would be helpful to see the range of HDI scores used to define ‘very high’ , ‘high’ etc.
>> The HDI scores were not defined by the authors of this paper, but are publically available in the report ‘The Wealth of Nations: Pathways to Human Development’ to which we refer in the paper, and which is freely accessible on the internet. The reference of this report is in the reference list.

Ad 5. It would be helpful to see the confidence intervals for the percent on the figure (using bar lines) as this would assist the reader in highlighting statistically significant differences.
>> We agree that adding confidence intervals is a good idea as it would help the reader in noticing statistically significant differences. These have now been added to the table.

Ad 6: Table 3: Remind the reader in the title how work status was coded. I’m assuming it was employed (full time/part time/ volunteer) vs unemployed (looking and not looking) but I’m not sure. Also, I’m not sure if you are calculating the odds of being unemployed to the odds compared to the odds of being employed or vice versa. I could guess, but it should be specified in the title.
>> Work status was defined as working fulltime or parttime versus all other groups (looking for a job, not looking for a job, volunteer work). Calculated were the odds of having a job against the odds of not having a job. This has now been added to the title of Table 3.

Ad 7 Table 3: In some parts of the table a reference category is identified and in other parts it isn’t. Suggest that this be standardized showing a reference category for each variable.
>> This has now been done, see Table 3.

Ad 8. Table 3: HDI doesn’t appear to be used in the multivariable model. Some explanation of this would be helpful. It could have been added using dummy codes.
>> HDI was not significantly related to work status on a univariate level. Therefore it was not included in the multivariable model. We have now added this information to the results section.

BMJ Open: first published as 10.1136/bmjopen-2015-009961 on 23 February 2016. Downloaded from http://bmjopen.bmj.com/ on April 22, 2024 by guest. Protected by copyright.

Ad 9: Consider adding the paper by Krupa et al. It offers a useful grounded theory model that may be useful to the background literature.
>> For the practical reason that this paper is not freely accessible and that including the paper in this revision would mean we could not resubmit the paper before the required deadline of next week, we cannot refer to it in our paper. Nevertheless, we are grateful for the suggestion and may refer to this work in our future work.

Reviewer 2.

Ad 1. The background states that there is a lack of literature on discrimination among people with MDD. They omit to refer to one of the studies by this group (Lasalvia et al) and also to the literature of experiences within the workplace of people with mental health problems, many of which concern experiences of depression. Much of this work is qualitative and so provides data on what kind of discriminatory experiences people have, e.g. employee decision making about disclosure of a mental health disorder at work.

>> We agree that there is more relevant literature than stated in the background. We originally wrote that ' very few studies (so far have) focussed on MDD' because given how prevalent MDD is (especially compared to schizophrenia), one would have expected there to be more literature on this. To clarify this we have now replaced the word 'very' by 'relatively'. We have referred to the study by Lasalvia, in the methods section. Referring to the papers of Toth & Dewa, Moll, Stanly et al, and the two papers of Brohan and colleagues was a good idea. These references have now been added to the text and reference list.

Ad2: Methods: Sampling is defined as purposive. This appears to be the case for site selection but it should not apply to the sampling of the 25 people at each site. This appears to have been convenience sampling but this needs clarification, and information about the response rate would be useful. This could most usefully be given as an overall rate and as a range across sites.
>> We agree that more specific information needed to be given on the sampling procedure. This information has now been added to the 'study design' paragraph of the methods section (see also our answer to referent 1, ad 2). Regarding response rates: unfortunately we do not have any information on that, which we now also mention in this new part of the methods section.

Ad 3: Was being employed either in the past or currently an inclusion criterion? This is important for the understanding of both experienced and anticipated discrimination. If not, did the rates of employment experience differ much across sites?
>> No, this was not an inclusion criterion (otherwise it would have been mentioned under 'procedure' in the part where we describe the other inclusion criteria). Although there were differences in employment rate across sites, the employment rates per HDI group did not differ significantly. This finding is now added to the results section.

Ad 4: The stigma resistance subscale is often excluded from the total because of its relatively weak psychometric properties and poor association of 4/5 items with the construct of internalized stigma. The use of the total would therefore be worth justifying.
>> We are not quite sure what the reviewer means here so unfortunately we cannot provide an adequate reply.

Ad 5. The paper would be clearer if the items used for the experienced discrimination analyses were given in the methods and if experienced discrimination were referred to as e.g. experienced

BMJ Open: first published as 10.1136/bmjopen-2015-009961 on 23 February 2016. Downloaded from http://bmjopen.bmj.com/ on April 22, 2024 by guest. Protected by copyright.

workplace discrimination throughout. This is important since overall discrimination as measured using the same instrument has previously been shown to be negatively associated with employment.
>> The items used for experienced as well as anticipated discrimination are already given in the methods section, under the subheading ‘measures’. We agree that changing experienced discrimination into experienced workplace discrimination is a good idea and have adapted this now throughout the revised manuscript.

Ad 6. The comment in the discussion about legislation not addressing self stigma implies legislation will be perfectly implemented and that everyone will have easy access to e.g. employment tribunals . Equality legislation applies to disability due to mental illness in all EU countries but clearly the rates of experienced discrimination are still high in this sample. Please reconsider this sentence.
>> We totally agree with this remark and have adapted the text accordingly.

Reviewer 3.

We would like to thank reviewer 3 for the compliments and enthusiasm and for helping us find these small mistakes that have been now been corrected in the text.

## VERSION 2 – REVIEW

| **REVIEWER** | Heather Stuart<br>Queen's University, Kingston, Ontario, Canada |
|---|---|
| **REVIEW RETURNED** | 18-Nov-2015 |

| **GENERAL COMMENTS** | It is unfortunate that you could not obtain the Krupa paper in time for the deadline. I feel that your reference list is incomplete as a result and would encourage you to obtaina copy of the paper (even if you write to the author) so that this can be incorporated. Otherwise, all other suggestions have been addressed. |
|---|---|

| **REVIEWER** | Claire Henderson<br>King's College London, UK<br><br>2 authors are colleagues in my dept |
|---|---|
| **REVIEW RETURNED** | 26-Nov-2015 |

| **GENERAL COMMENTS** | re this section in the response<br>Ad 4: The stigma resistance subscale is often excluded from the total because of its relatively weak psychometric properties and poor association of 4/5 items with the construct of internalized stigma. The use of the total would therefore be worth justifying.<br>>> We are not quite sure what the reviewer means here so unfortunately we cannot provide an adequate reply.<br>Please see Ritsher JB1, Otilingam PG, Grajales M. Internalized stigma of mental illness: psychometric properties of a new measure. Psychiatry Res. 2003 Nov 1;121(1):31-49. |
|---|---|

BMJ Open: first published as 10.1136/bmjopen-2015-009961 on 23 February 2016. Downloaded from http://bmjopen.bmj.com/ on April 22, 2024 by guest. Protected by copyright.