Reviewer's report

Title: A first national survey of mental health literacy and attitudes toward schizophrenia, bipolar disorder and autism in France

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Reviewer: Beate M. Schulze

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Review of the manuscript

“A first national survey of mental health literacy and attitudes towards schizophrenia, bipolar disorder and autism in France”, submitted by I. Durand-Zaleski et al. to BMC Health Psychiatry

Authors conducted the first population-based survey (n=1000) on mental health literacy in France, investigating knowledge, attitudes and behaviour towards individuals with three mental disorders. The study aimed at informing evidence-based interventions to reduce stigma among the French population. Concretely, the research aims to

1. explore public perceptions of autism, schizophrenia and bi-polar disorder
2. contrasting public views concerning a childhood development disorder (autism), a severe mental disorder (schizophrenia) and a disorder displaying symptoms of both common and severe mental disorders (bi-polar disorder), in terms of content and magnitude
3. contrasting disorders with onset in childhood with those typically prevalent in an adult population
4. assessing the role of familiarity with mental health problems as well as socio-demographic factors on stigma

While there has been a multitude of cross-sectional surveys on public attitudes, the study may offer additional knowledge when it comes to cross-cultural comparisons of public attitudes, besides to being relevant in the national context. It further includes diagnoses hitherto infrequently studied in attitude research (bi-polar disorder and autism). In addition, it has potential to broaden the evidence base regarding the association of diagnostic labels with public knowledge, attitudes and behaviours with familiarity and socio-demographic characteristics.

Major compulsory revisions:

(1) The research question – exploring knowledge, attitudes and behaviours – is clearly stated. To actually add to current knowledge of mental-health related stigma, however, contemporary survey research on mental health problems needs to be based on a clear theoretical model of the stigma concept, testing the
specific associations hypothesized (e.g. between the use of labels and emotional reactions; attitudes and behaviour, familiarity and social distance, etc.) The authors do take several components of stigma theories (Thornicroft et al. 2007, Corrigan et al. 2003) into account. What is missing, however, are clear hypotheses on how these components are interrelated, drawing on previous findings.

(2) As a result, authors present a variety of interesting findings which may appear somewhat unstructured, thus obstructing the reader’s view for the study’s key findings. For example, the comparison of respondents’ associations with diagnostic labels in contrast with the portrayal of individuals suffering from particular illnesses, showing a significant decrease in negative labelling when a disorder was associated with a personal history, strikes me an original contribution. In a similar vein, deepening the understanding of mental health literacy beyond the recognition of diagnostic labels by asking respondents to actually describe characteristics of the respective illness (p. 8, lines 3-5 from the bottom), may add to our knowledge on the level of information required to improve help-seeking. The fact that stigma varies between different disorders, with schizophrenia associated with the most negative attitudes, however, has widely been established in previous research.

(3) The breath rather than depth of findings may also reflect the methods of data collection. It appears that authors developed their own 21-item questionnaire, combining items from a wide range of established instruments to measure stigma and its components (see p. 6, last paragraph). What remains unclear, on the other hand, is

i. an overview of the 8 mental health literacy, 5 attitude, 4 behaviour and 4 familiarity items used in the study, e.g. in a table

ii. the motivation behind using a combination of items rather than choosing a validated measure (e.g. Link et al.’s Social Distance Scale, Corrigan et al.’s Attribution Questionnaire, established semantic differentials for assessing stereotypes, etc.), or a combination thereof

iii. the motivation behind selecting particular items as opposed to others

iv. the internal consistency of the 4 different constructs measured

v. As a result of their choice, authors mainly present descriptive data (frequencies and ranked frequencies), basing their analysis on individual items rather than clearly defined constructs. A related problem may be the use of inconsistent response formats across the questionnaire (dichotomous questions, Likert-scales, ranking scales), which may affect response behaviour and complicates data analysis.

(4) In the method section, authors describe having carried out least-square regression analysis to simultaneously assess the relationship of “... demographic variables or familiarity with mental disorders with different levels of awareness or tolerance among the public” (p.8, lines 3-5). However, neither is the regression model with its dependent and independent variables specified, nor are the results
of the models tested reported in a table.

(5) A further question is raised by the selection of stimuli for the three disorders studied. Explicitly, authors state that they “...employed the term manic depression rather than bipolar disorders as this is more familiar to and more commonly used by the lay public” (p. 7, lines 3-6 from bottom of page). One may wonder what this assessment is based on. Have authors conducted a pre-test, or are they referring to previous research on diagnostic labelling of vignettes describing typical symptoms of bi-polar disorder? An indication that the above assumption may have affected study results is given by the authors themselves: “Intriguingly, individuals ranked bi-polar disorder as the second most likely future mental health problem (after depression), ahead of other common mental disorders, perhaps indicating that in the public’s mind, bipolar is more like unipolar disorders.... rather than... (having) many similarities with psychoses” (p. 12, lines 14-18). This result may not reflect “the public’s mind” (yet another assumption), but rather result from the label “manic depression”, which may have suggested similarity with depression.

(6) Please specify in more detail how you obtained responses on associations with diagnostic labels (characteristics typical of diagnostic categories) as well as how you asked for descriptors of mental disorders as opposed to individuals with a mental disorder. Did you use open-ended questions? What procedure was applied to code open responses?

(7) Regarding public views about the effectiveness of different treatment options (p. 9, lines 14-18), it would be of interest to see how particular treatment approaches were ranked according to the disorder enquired, in the same fashion as reported for the expected course of the different disorders in Table 2. What kinds of treatments were actually enquired? As it stands, only medication and psychotherapies are mentioned in the manuscript. Also, have authors differentiated effectiveness ratings according to the three disorders studied?

(8) Another question arises as to how the three disorders were compared. Did all respondents answer all questions about or three disorders, or was there a random selection of subsamples which were presented with the questionnaire for one disorder each?

(9) The comparison between mental disorders in childhood as opposed to adulthood stated as a research objective was not specifically undertaken. Also, theories as to why there might be differences between attitudes about mental health problems in children and adults are not evident in the manuscript.

(10) The discussion starts with a lengthy summary of findings, which is largely redundant.

(11) Study limitations are spelt out clearly when it comes to sampling procedures and the representativeness of the study sample. However, authors should be more explicit about limitations arising from the assessment instrument, the variation in response categories and the diagnostic labels used as stimuli for the
knowledge, attitude and behaviour items. In addition, they may wish to produce stronger arguments for what their study adds, in addition to being the first survey into mental health literacy in France.

(12) Implications of findings for interventions to enhance mental health literacy are well-founded in the results presented as well as partly innovative in that they

i. emphasize the role of personal testimonials, i.e. improving attitudes towards individuals rather than towards a particular disorder, and

ii. underline the necessity to differentiate communication strategies for specific disorders rather than addressing mental illness in general.

On the other hand, the step-wise approach proposed in the concluding paragraph once more suggests a lack of conceptual clarity: it appears to seek instilling adequate clinical knowledge about bi-polar disorder (What about the other two disorders studied?) in the public, as the authors put it: “....building upon knowledge and more benign attitudes, then gradually making the link between the more severe aspects of the this disorder and psychoses in general, with a view to identifying with schizophrenia.” (p.15, final paragraph) This seems counter-intuitive: One may wonder how this strategy is supposed to contribute to improving public attitudes of bi-polar disorder, as the current paper and previous research clearly demonstrate that schizophrenia is associated with markedly more negative stereotypes and a stronger desire for social distance than most other mental health problems, except for alcoholism and substance abuse. It appears that authors do not clearly distinguish between public health education aimed to approximate lay and clinical knowledge, and reducing stigma towards individuals suffering from mental health problems. While they address the potentially conflicting results of mental health literacy campaigns (negative stereotypes of schizophrenia prevail despite education efforts (p.13); unexpected consequences of promoting a 'biogenic' aetiological model (p.3)), they appear to go on proposing this very strategy. Here, authors may wish to envisage other intervention approaches that have proven effective in previous evaluation studies, such as arts festivals (Quinn, Shulman, Knifton, & Byrne, 2010) or school level interventions with children and young people (Conrad et al., 2009; Schulze, Richter-Werling, Matschinger, & Angermeyer, 2003; Tobler et al., 2000; Weist, Nabors, Myers, & Armbruster, 2000), which build on facilitating personal contact with individuals who have had a mental health problem rather than exclusively informing about clinical syndromes.

Minor essential revisions:

(1) Presentation of results:
Caption of Table 2 should specify that it reports results of ranking different categories. Otherwise readers would expect a complete overview of the distribution of answers and the different response categories, e.g. yes, no, and don’t know.

(2) There are inconsistencies in the labels used for stereotypes in the results
section of the text (... most likely to be able to work; bottom of page 10) and in Figure 1 (unable to work/unable to live in society). Authors should make explicit how the relevant stereotypes were actually enquired, i.e. give the wording to show whether they measured a positive or negative stereotype. The phrasing of questions and scaling of responses has been shown to significantly affect responses, with significantly less endorsement for negative responses and more endorsement of positive responses. (Porst, 1998)

(3) Introduction:
In the introduction (p. 4, lines 10-12) it is stated that “...the majority of studies utilizing these theories conceptualize ‘mental disorder” as a single entity or only focus on schizophrenia”. Please give sources for this statement.

In summary, the research reported in this manuscript undoubtedly advances the field of attitude research in France. To be a sound addition to scientific knowledge internationally, though, I'm afraid the paper would have to be more focused, for example by

- Comparing the results obtained with attitude research from other countries, addressing the research question to what extent stigma is a universal phenomenon and where there are national and local particularities

- Presenting a comparison of the three disorders studied, based on clear hypotheses regarding illness-specific differences

- Developing and testing a hypothesized model of the relationships between knowledge, attitudes and behaviour in their undeniably strong sample

Reference List


**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests.