J. Behav. Ther. & Exp. Psychiat. 50 (2016) 231–237

Contents lists available at ScienceDirect

Journal of Behavior Therapy and Experimental Psychiatry

journal homepage: www.elsevier.com/locate/jbtep

The potential of continuum versus biogenetic beliefs in reducing stigmatization against persons with schizophrenia: An experimental study

Martin Wiesjahn [a, *, 1], Esther Jung [a], Julian D. Kremser [a], Winfried Rief [a], Tania M. Lincoln [b]

[a] Department of Psychology, Division of Clinical Psychology and Psychotherapy, Philipps-Universität Marburg, Germany
[b] Institute of Psychology, Department of Clinical Psychology and Psychotherapy, Universität Hamburg, Germany

ARTICLE INFO

Article history:
Received 30 April 2015
Received in revised form
7 August 2015
Accepted 12 September 2015
Available online 15 September 2015

Keywords:
Stigma
Schizophrenia
Continuum
Biogenetic
Experiment

ABSTRACT

Objective: A central aspect of previous anti-stigma campaigns was the promotion of biogenetic causes of schizophrenia. Although biogenetic beliefs have been shown to reduce the blame given to persons with schizophrenia, they tend to increase discrimination and stereotypes such as dangerousness and unpredictability. A novel anti-stigma approach is to incorporate continuum beliefs in order to oppose the perceived separation, which is a main component of the stigma process. The aim of the study was to compare the effects of a continuum, a biogenetic, and a control intervention on stereotypes, fear, and social distance towards persons with schizophrenia. Furthermore, it was intended to replicate earlier findings on the associations between continuum beliefs, biogenetic beliefs, and different facets of stigmatization.

Method: In an online-experiment, 1189 participants from the general population randomly received either a continuum, a biogenetic, or a control intervention, which consisted of written information texts.

Results: The continuum group showed less endorsement of the stereotype incompetence/unpredictability than the biogenetic group. The biogenetic group ascribed less blame to persons with schizophrenia than the other groups. The correlation analyses indicated continuum beliefs to be consistently associated with lower stereotype scores, less fear, and less preferred social distance.

Limitations: The sample was not fully representative and the experimental manipulations in our study consisted of relatively short information texts.

Conclusion: It is concluded that continuum beliefs have the potential to reduce stigmatization against persons with schizophrenia. However, future studies need to investigate the effects of more powerful interventions to promote them.

1. Introduction

Across cultures persons diagnosed with schizophrenia encounter stigmatization (Rose et al., 2011) which has been shown to be associated with reduced values in psychosocial variables such as self-esteem, hope, and quality of life as well as lower treatment adherence (Livingston & Boyd, 2010; Rüsch, Angermeyer, & Corrigan, 2005). Stereotypes about people with schizophrenia describe them as being dangerous, incompetent, and unpredictable and the disorder as unlikely to remit (Angermeyer & Matschinger, 2004). The public tends to be afraid of persons with schizophrenia (Schomerus, Matschinger, & Angermeyer, 2013) and shows a preference for social distance and structural discrimination (Angermeyer & Matschinger, 2004). For many people with schizophrenia, stigmatization is perceived as being even worse than the disorder itself (Meise, Sulzenbacher, & Hinterhuber, 2001).

So far, a central aspect of larger-scale anti-stigma campaigns, e.g. by the US Department of Health and Human Services (2003) or by the National Alliance on Mental Illness (2008), was the promotion of biogenetic causes of schizophrenia in order to describe it as being "like many other medical illnesses" (National Alliance on Mental

* Corresponding author. Department of Psychology, Division of Clinical Psychology and Psychotherapy, Philipps-Universität Marburg, Gutenbergstraße 18, 35032 Marburg, Germany.
E-mail addresses: martin.wiesjahn@staff.uni-marburg.de, m.wiesjahn@gmx.de (M. Wiesjahn).
[1] Present postal address: Schückingstraße 25, 35037 Marburg, Germany.

http://dx.doi.org/10.1016/j.jbtep.2015.09.007
0005-7916/

Illness, 2008, p. 5). In support of this, some studies revealed the promotion of biogenetic causes to reduce the blame given to persons with schizophrenia (Kvaale, Haslam, & Gottdiener, 2013; Lincoln, Arens, Berger, & Rief, 2008). However, blame has been shown to be the least endorsed stereotype (Angermeyer & Matschinger, 2004; Schlier, Schmick, & Lincoln, 2014) which indicates that other stereotypes may be more important targets for anti-stigma interventions. Furthermore, the majority of studies question this anti-stigma approach (Angermeyer, Holzinger, Carta, & Schomerus, 2011; Kvaale, Haslam, et al., 2013; Read, Haslam, Sayce, & Davies, 2006). Whereas some found no differential effects of interventions that promoted biological causal models on central stigma components (Schlier et al., 2014) others even found an increase in stereotypes related to dangerousness and unpredictability (Kvaale, Haslam, et al., 2013; Walker & Read, 2002) and in discrimination (Mehta & Farina, 1997; Walker & Read, 2002). Studies comparing public attitudes over the last decades show that although the population has been more inclined to endorse biogenetic beliefs of schizophrenia, stigmatization has increased (Angermeyer, Matschinger, & Schomerus, 2013; Pescosolido et al., 2010).

Given these sobering results there is a growing interest in developing improved anti-stigma interventions. A novel idea follows Link and Phelan's conceptualization of stigma (Link & Phelan, 2001). They describe the separation between “us” and “them” as one component of stigmatization which results in negative emotions, devaluation, and discrimination (Link & Phelan, 2001). Building on this, two studies investigated the association between continuum beliefs about psychotic symptoms and stigmatization (Schomerus et al., 2013; Wiesjahn, Brabban, Jung, Gebauer, & Lincoln, 2014). The continuum model postulates that psychotic symptoms lie on a continuum to normal experiences (McGovern & Turkington, 2001) and has been supported by numerous empirical studies (Bentall, 2014; Johns & van Os, 2001; Van Os, Linscott, Myin-Germeys, Delespaul, & Krabbendam, 2009). The assumption of a continuum opposes the separation and emphasizes similarity. Thus, promotion of continuum beliefs could be used to counteract stigma (Link & Phelan, 2001). In support of this, Schomerus et al. (2013) found continuum beliefs to be related to less fear, lower preference for social distance, and higher likeliness of pro-social behavior. In a study by Wiesjahn et al. (2014) continuum beliefs were associated with less stereotypes but not with a lower preference for social distance. Overall, these correlational findings (Schomerus et al., 2013; Wiesjahn et al., 2014) indicate a potential of continuum beliefs for anti-stigma interventions.

To test the effect of an intervention promoting continuum beliefs and compare it with a biogenetic and a control intervention we adopted an experimental approach. As primary outcomes we investigated the stereotypes dangerousness, incompetence/unpredictability, poor prognosis, and blame. Stereotypes represent the evaluative aspect of stigmatization, which we expect to be closely linked to continuum beliefs and biogenetic beliefs. As secondary outcomes we examined fear as an emotional reaction and the preferred social distance as the behavioral intention towards persons with schizophrenia. To control for other potentially relevant factors we examined baseline stigma scores, levels of education, and pre-existing levels of contact to persons with schizophrenia as covariates, which have been shown to be associated with stigmatization (Angermeyer & Matschinger, 2004; Boyd, Katz, Link, & Phelan, 2010).

Based on previous findings (Schomerus et al., 2013; Wiesjahn et al., 2014) we expected the continuum intervention to result in lower scores than the biogenetic and the control condition with regard to dangerousness, incompetence/unpredictability, and poor prognosis. Furthermore, we expected lower levels of fear and a lower preference for social distance in the continuum condition in comparison to the biogenetic and control condition. Analogous to previous studies (Kvaale, Haslam, et al., 2013; Lincoln et al., 2008) we expected the biogenetic manipulation to result in lower levels of blame than the continuum and control condition. Finally, we investigated associations between continuum beliefs, biogenetic beliefs, and stigma measures in order to replicate previous findings.

2. Method

2.1. Participants

Participants were recruited by spreading a link to an online survey through email distribution lists of six German universities, numerous regional and national sports and cultural associations, and social networks (a complete list can be retrieved from the first author).

In total, 1822 persons followed the link and 1772 agreed to participate. We included participants who accepted the terms of participation, were 18 years or older, completed the entire questionnaire, and finished the assessment in a reasonable time (within two standard deviations above or below the mean time). The analyzed sample consisted of $N = 1189$ individuals (67.70% female) with a mean age of 30.98 ($SD = 12.06$) years. Participants reported having received a mean of 17.36 ($SD = 3.14$) years of education.

2.2. Design and procedure

We used an experimental design with three conditions (see Fig. 1). After obtaining informed consent demographic variables, pre-existing level of contact, and baseline stigmatization were assessed. Then participants randomly received one of three versions of information texts (continuum, biogenetic, or neutral condition; see Supplementary Material). To control for the impact of general information on schizophrenia, the control group received a text about symptoms of schizophrenia which was generated from information from the ICD-10 (Dilling, Mombour, Schmidt, & Schulte-Markwort, 2011), from a standard text book on clinical psychology (Leucht, Fritze, Lanczik, Vauth, & Olbrich, 2009), and epidemiological studies on symptom prevalence (Lincoln, Keller, & Rief, 2009). This text contained no information on the continuity of symptoms or causes of the disorder. Participants in the continuum condition received a text on the continuum model (based on findings on the continuity of psychotic symptoms (Lincoln, Keller, et al., 2009; Lincoln, Peter, et al., 2009; McGovern & Turkington, 2001) and studies supporting the continuum model by showing that stress is likely to provoke psychosis-like experiences in healthy individuals (Kesting, Bredenpohl, Klenke, Westermann, & Lincoln, 2013; Lincoln, Peter, Schäfer, & Moritz, 2009)) in addition to the symptom text. Participants in the biogenetic condition received a text on biogenetic causes (based on a standard textbook (Leucht et al., 2009) and leaflets from the National Alliance of Mental Illness (National Alliance on Mental Illness, 2008, 2011)) in addition to the symptom text. Each text was presented for at least 1 min. Then we assessed continuum and biogenetic beliefs to check the impact of the manipulations. Subsequently we assessed stereotypes, fear, and social distance. Finally, the participants were debriefed about the experimental design and continuum information was provided to the participants in the biogenetic and the control condition. On average the assessment took 27.32 min ($SD = 7.18$). The study was approved by the Ethics Committee of Department of Psychology of the Philipps-Universität Marburg (AZ 2013–18 k).