INPLASY

Interventions for Reduction of Stigma in People with Schizophrenia: A Systematic Review and Meta-analysis

Corresponding author:
Shu Ping Chuang

xota5139@gmail.com

Author Affiliation:
Department of Psychiatry, Zuoying Branch of Kaohsiung Armed Forces General Hospital, Kaohsiung, Taiwan.

Chuang, SP; Wu, JYW; Wang, CS.

ADMINISTRATIVE INFORMATION

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Conflicts of interest - None declared.

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Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 19 March 2024 and was last updated on 19 March 2024.

INTRODUCTION

*R*eview question / Objective This study aims at examining the effectiveness of internalized stigma reduction in people with schizophrenia through a systematic review and meta-analysis.

Condition being studied People with schizophrenia experienced a higher level of internalized stigma compared to people with other mental disorders. Internalized stigma could lead to pervasive negative effects in their life. Although internalized stigma interventions have shown some benefits, there is a dearth of interventions and meanwhile a lack of evidence as to their effectiveness in people with schizophrenia.

METHODS

Participant or population People with a diagnosis of schizophrenia.

Intervention A variety of psychosocial interventions were utilized with the majority employing psychoeducation, cognitive behavioral therapy (CBT), social skills training, hope instillation program, and against stigma program.

Comparator Healthy people without a psychiatric diagnosis.

Study designs to be included Cross sectional and longitudinal design.

Eligibility criteria We included interventions whichmet the criteria: (1) studies: Randomized clinical trials,clinical trials, and experimental studies with control groupsaimed to examine self or internalized stigma reduction inpeople with schizophrenia; (2) participants: Participants withschizophrenia; (3) intervention: Studies that did not targetself or internalized stigma were not eligible; and (4) outcomemeasures: Studies that used validated instruments for screeningand

assessing the severity of internalized stigma. Search was restricted to publications in English.

Information sources This study was conducted in compliance with the PRISMA statement.21 Relevant articles were identified by searching PubMed and PsycINFO which were published in the period from January 1, 1999, to October 31, 2022, with a combination of keywords.
If the results of included studies were not reported, we contact with authors of these included studies.

Main outcome(s) The internalized stigma was used to examine the efficacy of the intervention. Seven studies involving a total of 799 patients were included in the meta-analysis. Assuming a random effects model, the meta-analysis revealed an improvement in internalized stigma favoring the internalized stigma intervention (95% confidence interval [0.492; 1754], $P = 0.001$), but the heterogeneity among individual effect sizes was substantial ($I2 = 93.20\%$). Most internalized stigma reduction programs appear to be effective.

Quality assessment / Risk of bias analysis All studies were assessed for bias using the EPHPP tool. Summary scores and ratings are outlined in Table 2. All studies were rated strongly of withdrawals/dropouts, indicating that participants were able to complete the intervention programs.1. Under a random-effects model, visual evaluation of the funnel plot revealed the absence of publication bias. The trim-and-fill analysis indicated that two studies were missing.

Strategy of data synthesis A number of study characteristics were extracted, including publication year, study design, type of intervention, duration of the treatment period (weeks or months), demographics (age, gender, and diagnosis), and length of sessions. We used the Effective Public Health Practice (EPHPP) tool which examined key potential biases: study design, withdrawals/dropouts, selection bias, data collection methods, cofounders, and validity evidence. The assessment of study quality is outlined in Table 2.

Subgroup analysis Other analysis for intervening variables was conducted which could have an effect on the association between different interventions and internalized stigma and may explain the heterogeneity of study effects. A significant effect was identified: using RCT/non-RCT ($P < 0.001$) and different interventions ($P < 0.001$), respectively [Table 3].

Sensitivity analysis Under a random-effects model, visual evaluation of the funnel plot revealed the absence of publication bias. The trim-and-fill analysis indicated that two studies were missing. The left-sided test for the asymmetry of the funnel plot using Egger's regression test was not significant ($P = 0.01561$) [Figure 3].

Country(ies) involved Total three authors (Department of Psychiatry, Zuoying Armed Forces General Hospital, Department of Psychiatry, Kaohsiung Armed Forces General Hospital, Kaohsiung, Good-Day Psychology Clinic, Tainan, Taiwan).

Keywords Internalized stigma interventions, schizophrenia, systematic reviewnegative.

Contributions of each author
Author 1 - Shu Ping Chuang.
Author 2 - Jo Yung-Wei Wu.
Author 3 - Chien Shu Wang.