

Crazy? So what! Effects of a school project on students' attitudes towards people with schizophrenia

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Objective: Aiming at promoting young people's mental health and reducing stigma towards people with schizophrenia, project weeks were carried out with secondary school students aged 14–18 years ($n = 90$). Key to the project week is meeting a (young) person with schizophrenia.

Method: Students' attitudes and behavioural intentions towards people with schizophrenia were assessed before and after the project. Parallely, a control group of students were questioned ($n = 60$). Assessment was repeated after 1 month.

Results: Despite expected ceiling effects, the project led to a significant reduction of negative stereotypes. For social distance, a positive trend could be observed. These developments were not present with the controls. Attitude changes were still evident at the 1-month follow-up.

Conclusion: Results support the hypothesis that young people's attitudes about schizophrenia are susceptible to change. Antistigma projects at school level could thus be a promising approach to improving public attitudes and to preventing stereotypes from becoming reinforced.

**B. Schulze¹, M. Richter-Werling²,
H. Matschinger¹,
M. C. Angermeyer¹**

¹Department of Psychiatry, University of Leipzig, Leipzig, Germany and ²Irrsinnig menschlich e.V., Verein für Öffentlichkeitsarbeit in der Psychiatrie, Leipzig, Germany

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B. Schulze, Department of Psychiatry, University of Leipzig, Johannisallee 20, 04317 Leipzig, Germany
E-mail: beatemschulze@web.de, krausem@medizin.uni-leipzig.de

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Introduction

Schizophrenia is one of the most stigmatized condition. Using derogatory terminology and making jokes about minorities and marginal groups has become largely socially unacceptable, while it is still commonplace to draw on stereotypical images of madness and use terms such as 'schizo' or 'nutter' in advertizing, the film industry, or everyday language. Compared with other mental illnesses such as depression, anxiety disorders and eating disorders that are met with an increasing public interest, schizophrenia remains associated with negative media coverage and public imagery (1–3). Social rejection related to severe mental illnesses such as schizophrenia extends to as far as accepting restrictive measures against people suffering from the illness (4) on the one hand, while on the other, there have been significant advances in the treatment opportunities for schizophrenia over the last two decades which can improve the

quality of life and social integration of those suffering from the illness. Because of the stigma associated with schizophrenia, however, effective treatments are often not being used and social integration is frequently prevented by negative stereotypes and public fear (5).

With the aim of counteracting stereotypes before they arise, targeting children and young people is a central approach in public education and antistigma campaigns (6–8). Studies on children's conceptions of mental illness have revealed that younger children do not yet have a clear idea of what mental illness means or what specific characteristics are associated with it (9, 10). Further, explicit conceptions of personality traits which are the basis for the formation of stereotypes about groups of people are not developed until adolescence (11). Projects with children and young people therefore appear to be a particularly promising intervention.

In designing interventions at school level, it is important to consider what kind of project will be

most effective. Some attempts to familiarize children and young people with mental health issues have focussed on improving young people's knowledge about mental disorders (e.g. 12, 13). However, it cannot be presumed that secondary students show great interest in information about mental illness unless the topic assumes personal relevance for them. Here, it is of importance to address students at an age where mental health issues feed into their own needs and experiences. Adolescence has been characterized as the beginning of young people's concern for their own wellbeing and the onset of developing a sense of personal identity (14). The emotional upheaval accompanying this period may also involve first experiences of crises which may potentially lead to mental health problems such as suicidal behaviour (15) or addictive disorders (16). Further, adolescence and young adulthood mark the onset of a number of mental illnesses such as schizophrenia or obsessive-compulsive disorder (17). It can thus be assumed that young people aged 14–18 years take some personal interest in discussing mental health issues.

Not only is personal relevance important in generating a genuine interest in mental health issues, but it is also beneficial in reducing stigma and stereotypes. Young people have been found to arrive at their definitions of mental illness by drawing on personal experiences: when behaviour portrayed was understandable in terms of the young people's own view, they were reluctant to apply negative labels to it or to define it as pathological (18).

As part of the World Psychiatric Association's Global Programme against stigma and discrimination because of schizophrenia (19, 20), a school programme entitled 'Crazy? So what!' was carried out with secondary school students in Germany.

Aims of the study

With the aim of evaluating the success of the project weeks and being able to plan future action effectively and in accordance with the students' needs for information, the project was accompanied by a scientific evaluation. Programme effectiveness was evaluated by assessing students' attitudes and behavioural intentions towards people with schizophrenia.

Material and methods

Project weeks

In the school system in the federal state of Saxony, 1 week of the academic year is dedicated to project

work outside the context of regular lessons. Here, the students can choose from a variety of projects which are often invited from partners outside the schools. At the beginning of the academic year 2000/2001, all secondary schools in Leipzig were sent information about the project week 'Crazy? So what!'. Interest in the offer was great – not least in the light of a guideline recently issued by the Saxon Ministry of Education which defines the development of social competencies as an additional task for schools apart from imparting academic knowledge.

With the aim of ensuring that the project is of personal relevance to the participants, project weeks specifically addressed students at adolescent age (14–18 years). In addition, meeting a person who has had schizophrenia is the key element of the project. This decision was motivated by the finding that attitudes and behavioural intentions towards people with schizophrenia are closely related to personal contact (21–23) – a factor which has also been revealed to be a decisive element in the success of school mental health projects (8).

Two strategies were pursued to increase the extent to which the students identify with people suffering from schizophrenia and thus to improve programme effectiveness: the project placed particular importance on similarities rather than differences between the students and the person with schizophrenia on the project team, and young people with schizophrenia (18–26 years) were chosen for the project teams. The importance of similar age for the identification with a person has been demonstrated by research on young people's emotional reactions to people with mental illness (18).

The project 'Crazy? So what!' starts from the students' personal experiences with their emotional wellbeing and mental health. Using artwork and games, students discussed which events in life can lead to illness or contribute to wellbeing and happiness at certain points in the life circle. Further, they looked at what helps them to get better when feeling ill or down, and what would aggravate an illness or crisis. In this way, we aimed at both instilling social competencies in coping with crisis and providing a context for introducing schizophrenia as one particular illness whose onset can be explained from within the life circle of the person affected. Subsequently, a young person with schizophrenia introduced him/herself and discussed his/her experiences with the students. Discussions involved information on the illness, available treatments and experiences of stigma resulting from schizophrenia. All parts of the project week were interactive, i.e. issues were

developed through guided group discussions. Interactive approaches combining discussions and simulation have been found to be more effective than formal lectures alone (24). A detailed outline of the project week is given in Fig. 1.

Sample description

From 25 January to 15 April 2001, 90 students from five secondary schools in Leipzig participated in the project 'Crazy? So what! – It's normal to be different'. There are two different types of schools offering secondary education in the regional education system in Saxony: secondary modern schools (Mittelschulen) where students obtain an intermediate school certificate and leave school after grade 10, and grammar schools (Gymnasien) which are followed by students studying for passing A levels (Abitur) after grade 12. Access to the different school types is based on the school report at the end of primary school and the teacher's assessment of academic performance and learning capacity. As educational level and social class have been found to be important predictors of social attitudes, school type was considered as one explanatory variable in assessing the project's effect on the students' views of schizophrenia. In each school, students participating in a different project unrelated to mental health were questioned as controls ($n = 60$). All students in grade 9–12 could opt for one project under the same conditions. In choosing the control group, all projects at a school were assessed regarding their composition (age, gender) with the aim of identifying the group best comparable with each respective project group. Sample characteristics are given in Table 1.

Design and assessment instrument

Using a specially developed questionnaire, the students' attitudes towards people with schizophrenia were assessed before and after the project. Students were not given any information about schizophrenia prior to administering the questionnaire at baseline. In order to measure the mid-term effect of the project, follow-up assessment was carried out 1 month after the end of the project week. A control group at the same school was questioned parallel to the students participating in the project. The control groups, too, were questioned again after 1 month.

The questionnaire comprised two topics: *stereotypes of schizophrenia* (see Table 2) and *social distance*, i.e. the students' readiness to enter different types of social relationships with someone who has had schizophrenia (see Table 3). The

instrument follows the logic of the stigma process (25) in which undesirable characteristics are stereotypically linked to a condition and serve to justify negative social reactions, i.e. stereotypes form the basis of behavioural intentions.

Aimed at developing an assessment instrument specifically tailored towards measuring the attitudes of children and young people, the scale for measuring social distance (see Table 3) was developed in focus groups with young people of the same age group as the students who were to participate in the project ($n = 60$). Focus groups served to identify relationship situations relevant to the everyday lives of adolescents. In order to facilitate international comparison with other school projects carried out as part of the World Psychiatric Association (WPA) programme, four social distance items (*) were taken from the school questionnaire of the WPA pilot project in Alberta/Canada. The questionnaire further enquired whether students endorse a number of widespread stereotypes of schizophrenia (26; see Table 2).

Data analysis

Initially, changes in attitude were analysed by means of comparing the relative frequencies of cases in the response categories (agree/unsure/disagree) at the different points of measurement in order to identify the directions of attitude change present in the sample for the different items. As a second step, sum scores were calculated for stereotype and social distance. Sum scores measured the desired outcome, i.e. the *absence* of (negative) stereotypes and the *absence* of social distance. Stereotype and social distance scales were tested for reliability at each point of measurement by analysing internal consistency. Cronbach's α values show a good reliability for both scales (Tables 4 and 5).

In order to evaluate the effect of the intervention, changes of stereotype and social distance were analysed by means of a two-level random coefficient regression model (27–29). The observation for each point in time per student was considered to be level 1. The student with his/her individual characteristics such as school type or membership in the project group across the three points of measurement formed level 2. The effect of time on the outcome variables was defined as random, as we did not expect stereotype and social distance to be constant but rather to vary between individuals. Membership in the project/control group and attendance of a particular school type were considered as explanatory factors for the variance of both the baseline values and change over time. The effect of school type and participation in the

Table 1. Sample description

	Project group	Control group
<i>n</i>	90	60
Gender		
Female	65.9%	50%
Male	34.1%	50%
Mean age (years)	14.8	15.4
School type		
Secondary modern school	68.2%	79%
Grammar school	31.8%	21%
Previous contact with mentally ill people	23.7% yes	6.3% yes

project on baseline results (t_0) and development of stereotype and social distance over time was estimated on the basis of cross-level interaction effects (school \times time; project \times time). Project effects were controlled for school type (secondary modern vs. grammar school), gender and age.

Results

Baseline

On the whole, only few students questioned subscribed to negative stereotypes of schizophrenia or

rejected entering the relationship situations enquired by the social distance scale. Already at baseline, students on both the project and the control group seemed little prepared to endorse negative views about people with schizophrenia. This tendency was more pronounced for the project group than for the controls (Figs 2 and 3). Both school type (grammar school) and opting into the project group were found to have a positive effect on both stereotype and social distance (see Tables 6 and 7). Gender and age effects on the outcome variables could not be observed.

Rather than subscribing to negative views, an unusually large share of those questioned (mean: 42.5%; range 7.33–76%) stated that they were unsure as to the correctness of stereotypical assumptions about schizophrenia as well as regarding how they would react in the social distance situations proposed. The large number of ‘unsure’ answers might indicate that young people less readily subscribe to stereotypical statements they cannot test within the bounds of their own experiences – which would support the claim that young people are particularly receptive for antistigma programmes.

Attitude improvements could thus only be expected from ‘unsure’ responses to the response

Table 2. Stereotypes held by secondary school students before and after the project week (t_0 – t_1)

Items	Project group (<i>n</i> = 90)			Control group (<i>n</i> = 60)		
	Agree	Disagree	Unsure	Agree	Disagree	Unsure
<i>Ability to cope with stress</i>						
Someone who has had schizophrenia cannot cope with stress before exams						
t_0	15 (16.7)	14 (15.6)	60 (66.7)	10 (16.7)	12 (20.0)	38 (63.3)
t_1	30 (33.7)	17 (19.1)	42 (47.2)	6 (10.2)	14 (23.7)	39 (66.1)
<i>Social background</i>						
Mostly, someone who has had schizophrenia comes from a family with little money						
t_0	1 (1.1)	66 (73.3)	28 (31.1)	–	43 (71.7)	17 (38.3)
t_1	3 (3.3)	77 (85.6)	10 (11.1)	3 (5.0)	40 (66.7)	17 (38.3)
<i>Untreatability</i>						
Someone who has had schizophrenia cannot be helped by the doctors						
t_0	6 (6.7)	42 (46.7)	42 (46.7)	2 (3.3)	16 (26.7)	42 (70.0)
t_1	2 (2.2)	64 (71.1)	24 (26.7)	3 (5.0)	21 (35.0)	36 (60.0)
<i>Dangerousness</i>						
When meeting someone with schizophrenia, one should better watch out						
t_0	14 (15.6)	52 (57.8)	29 (32.2)	7 (11.7)	29 (48.3)	24 (40.0)
t_1	7 (7.9)	61 (68.5)	21 (23.6)	9 (15.0)	28 (46.7)	23 (38.3)
<i>Intelligence</i>						
Someone who has had schizophrenia can be good at school						
t_0	45 (50.0)	5 (5.6)	39 (43.3)	31 (51.7)	3 (5.0)	25 (41.7)
t_1	51 (56.7)	8 (8.9)	31 (34.4)	28 (46.7)	4 (6.7)	28 (46.7)
<i>Unpredictability</i>						
Someone who has had schizophrenia blows his/her top for the slightest reason						
t_0	9 (10.0)	32 (35.6)	49 (54.4)	10 (67.0)	10 (67.0)	40 (66.7)
t_1	7 (7.9)	51 (57.3)	31 (34.8)	2 (3.3)	22 (36.7)	36 (60.0)
<i>Creativity</i>						
Students who have had schizophrenia are particularly good at music or art						
t_0	12 (13.3)	10 (11.1)	68 (75.65)	–	13 (21.7)	47 (78.3)
t_1	22 (24.4)	17 (18.9)	51 (56.7)	1 (1.7)	11 (18.3)	48 (80.0)

Percentage values are given in parentheses.

Effects of a school project on students' attitudes

Table 3. Social distance of secondary school students before and after the project week (t_0-t_1)

Items	Project group ($n = 90$)			Control group ($n = 60$)		
	Agree	Disagree	Unsure	Agree	Disagree	Unsure
I would be afraid to talk to someone who has had schizophrenia*						
t_0	5 (5.6)	57 (63.3)	28 (31.1)	4 (6.7)	27 (45.0)	29 (48.3)
t_1	1 (1.1)	72 (80.0)	17 (18.9)	4 (6.7)	43 (71.7)	13 (21.7)
I would not be upset or disturbed to be in the same class with someone who has had schizophrenia*						
t_0	57 (63.3)	13 (14.4)	19 (21.1)	31 (51.7)	6 (10.0)	23 (38.3)
t_1	64 (71.15)	15 (16.7)	11 (12.2)	30 (49.2)	13 (21.7)	17 (42.5)
I could imagine making friends with someone who has had schizophrenia*						
t_0	53 (58.9)	12 (13.3)	25 (27.8)	24 (40.0)	9 (15.0)	27 (45.0)
t_1	61 (67.8)	8 (8.9)	21 (23.3)	27 (52.9)	11 (55.0)	22 (44.9)
I would feel embarrassed or ashamed if my friends knew that someone in my family had schizophrenia*						
t_0	10 (11.1)	56 (62.2)	24 (26.7)	5 (8.35)	40 (66.7)	15 (25.0)
t_1	14 (15.5)	58 (64.4)	17 (18.9)	6 (10.0)	41 (68.3)	13 (46.4)
If the person sitting next to me in class developed schizophrenia, I would rather sit somewhere else						
t_0	6 (6.7)	63 (70.0)	21 (23.3)	11 (18.3)	32 (53.3)	17 (28.3)
t_1	6 (6.7)	67 (74.4)	17 (18.9)	11 (18.3)	35 (58.3)	14 (23.3)
If one of my friends developed schizophrenia, I would go and see him/her at the hospital						
t_0	80 (88.9)	6 (6.7)	4 (4.4)	50 (83.3)	3 (5.0)	7 (11.7)
t_1	84 (93.3)	4 (4.4)	2 (2.2)	46 (76)	7 (11.7)	7 (11.7)
I would not invite someone who has had schizophrenia to my birthday party						
t_0	9 (10.0)	57 (63.3)	24 (26.7)	2 (3.3)	34 (56.7)	24 (40.0)
t_1	6 (6.7)	62 (69.7)	21 (23.6)	10 (16.7)	28 (46.7)	22 (36.7)
I would not bring along someone who has had schizophrenia when I meet my friends						
t_0	9 (10.0)	47 (52.2)	32 (35.6)	11 (18.3)	23 (38.3)	24 (40.0)
t_1	9 (10.0)	59 (65.6)	22 (24.4)	16 (27.1)	20 (33.9)	24 (40.0)
When going on a class outing, someone who has had schizophrenia should rather stay at home						
t_0	8 (8.9)	44 (48.9)	37 (41.1)	6 (10.0)	31 (51.7)	23 (38.3)
t_1	7 (7.8)	53 (58.9)	30 (33.3)	9 (15.0)	25 (41.7)	26 (43.3)
I would never fall in love with someone who has had schizophrenia						
t_0	16 (17.8)	20 (22.2)	54 (60.0)	14 (23.3)	12 (20.0)	34 (56.7)
t_1	15 (16.7)	31 (34.4)	44 (48.9)	13 (21.7)	15 (25.0)	32 (53.3)
Someone who has had schizophrenia should not work in jobs that involve taking care of children or young people						
t_0	19 (21.1)	36 (40.0)	34 (37.8)	18 (30.0)	18 (30.0)	24 (40.0)
t_1	13 (14.4)	52 (57.8)	25 (27.8)	18 (30.0)	19 (31.7)	23 (38.3)
Someone who has had schizophrenia should not go to regular school						
t_0	9 (10.0)	52 (57.8)	29 (32.2)	14 (23.3)	28 (46.7)	18 (30.0)
t_1	7 (7.8)	64 (71.1)	19 (21.1)	15 (25.0)	29 (48.3)	16 (26.7)

Percentage values are given in parentheses. *Items taken from the School Questionnaire of the Canadian Pilot of the WPA Programme (H. Stuart & J. Arboleda-Flórez, unpublished data).

option suggesting a positive attitude (depending on the item wording). Therefore sum scores for social distance and stereotype were calculated adding up positive responses. The relative frequencies for the different response categories before and after the project are given in Tables 2 and 3.

Together with the fact that those students opting for the project had better initial results than their counterparts in the control group, students' unwillingness to agree with negative stereotypes or social rejection can further be expected to result in a ceiling effect on the project outcomes.

Attitude changes over time

Table 6 shows project effects on the presence of negative stereotypes among the students. Changes of stereotype over time are estimated to be negative for the control group (-0.12) while a positive change is observed for the project group. The interaction effect project \times time (0.50) indicates a significant positive effect, i.e. a dispelling of negative stereotypes ($P = 0.01$). The difference between the development of negative stereotypes in the project and control groups is shown in Fig. 2. This decrease in negative stereotypes is predominantly attributable to membership in the project group.

Table 4. Reliability of stereotype scale (internal consistency) at the three points of measurement

Time	Cronbach's α
t_1	0.73
t_2	0.71
t_3	0.72

Table 5. Reliability of social distance scale (internal consistency) at the three points of measurement

Time	Cronbach's α
t_1	0.80
t_2	0.83
t_3	0.85

Table 6. Results of random coefficient linear regression analysis for stereotype

	Coefficient	SE	P-value
Intercept t_0	2.70	0.21	0.00
Effect of school type at t_0	1.13	0.27	0.00
Effect of project participation at t_0	0.49	0.26	0.06
Time effect	-0.12	0.13	0.36
Interaction effect			
School \times time	0.28	0.19	0.16
Project \times time	0.50	0.18	0.01

Table 7. Results of random coefficient linear regression analysis for social distance

	Coefficient	SE	P-value
Intercept t_0	5.49	0.41	0.00
Effect of school type at t_0	2.16	0.46	0.00
Effect of project participation at t_0	0.95	0.48	0.05
Time effect	-0.14	0.29	0.63
Interaction effect			
School \times time	0.32	0.27	0.24
Project \times time	0.95	0.32	0.11

Table 7 shows a similar development for social distance. Students participating in the project start with higher scores, but improve even further as a result of the project (Fig. 3). The effect of participating in the project on the changes over time is nearly three times as big the effect of being a grammar school student. This indicates a positive trend in the students' readiness to enter social relationships with a person suffering from schizophrenia as a result of the project. However, this effect is not statistically significant.

Attitudes improvements for both stereotype and social distance could still be observed at the 1-month follow-up (see Figs 2 and 3).

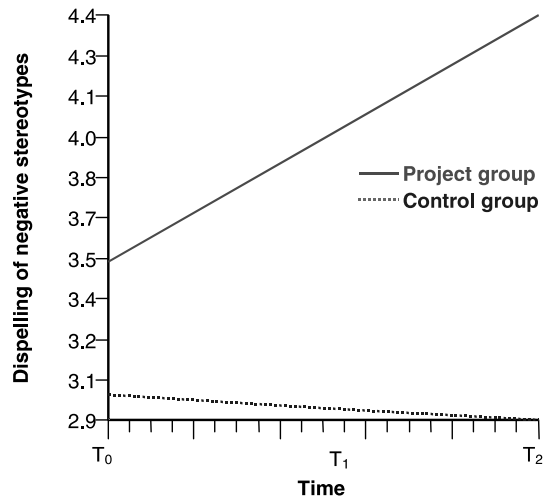


Fig. 2. Project effects on negative stereotypes.

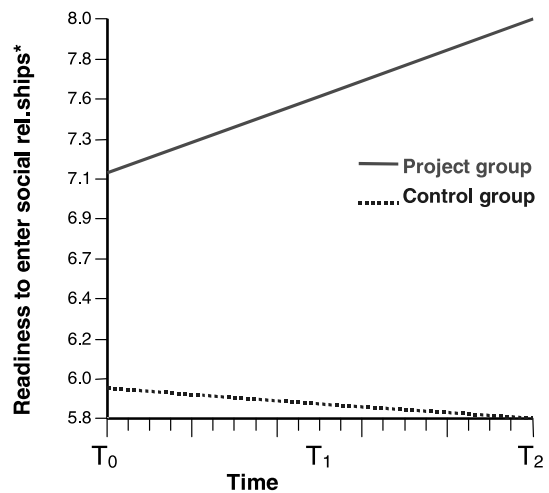


Fig. 3. Project effects on social distance. *Measured by absence of social distance.

Discussion

Despite expected ceiling effects, the project had a positive effect on both the stereotypes held by the students and their readiness to enter social relationships with people suffering from schizophrenia.

Results concerning changes of stereotype and social distance reflect the different steps in stigma process (25). The formation of negative stereotypes and their ascription to an undesirable condition such as schizophrenia precedes peoples' consideration of behavioural options towards people belonging to the labelled group. The reduction of stigma appears to follow the same process. While people may hold more positive attitudes about schizophrenia as a result of an intervention, a significant improvement of their readiness to enter social relationships with individuals affected by the

illness is likely to be a more long-term process. Evaluation results can thus be considered to support the contention that counteracting the stigma of schizophrenia effectively requires a continuous effort rather than large scale public education campaigns at one point of time.

In addition, the different degree to which stereotypes and social distance were reduced as a result of the project week may result from the different level of concreteness of the measured outcomes. Ascribing characteristics to a group of (anonymous) persons (someone who had schizophrenia) is more easily performed than deciding how one would behave in a concrete relationship situation with a person suffering from the illness. This indicates that the different level of attitudes and behavioural intentions may also become reflected in the degree to which attitudinal indicators such as stereotypes and indicators for hypothetical behaviour such as social distance measures are susceptible to change.

This finding points to the *limitations* of our evaluation study. While attitudes are one factor in predicting behaviour (30), they cannot be conceived as being linked to actual behaviour in a linear causal relationship. Attitude research therefore is of limited value in drawing conclusions on the negative reactions towards people suffering from schizophrenia occurring in a real life situation. Our study sought to address this problem by developing a social distance scale specially designed to enquire relationship situations relevant to young people. By making the level of behavioural intentions to be assessed as concrete as possible for the students, we hoped to offer choices that are as close as possible to real situations the young people encounter as part of their everyday lives. This may have improved the accuracy of the social distance measure.

A further limitation of the study is related to the opportunity for students to choose whether to participate in the project or not. Here, *selection effects* can be expected as individuals more interested in the subject are most likely to sign up for the intervention. Randomization, however, is difficult to achieve as part of a school level intervention where the organizational framework for projects is determined by school routines and structures. Selection factors may further operate as project participants' initial interest in the subject could have made them more responsive to the project. While the different starting level concerning the attitudes of the project and control groups is considered in the two-level regression model, differences in the students' readiness to change their views were not assessed by our method.

The 1-month follow-up showed that the attitude improvements were still evident after longer time period has passed. However, previous studies have demonstrated that effects are likely to lessen with time (31–33), and that the duration and regularity of an intervention is positively related to its long-term effects (34). While the project weeks are an important starting point to generate interest in a topic that adolescents do not normally actively seek information about (35), continued exposure to mental health issues is crucial to sustain the students' interest and build on the positive attitude changes achieved by this first intervention. With this in mind, projects on mental health and illness should be offered to schools on a regular basis. In the long run, antistigma effort should work towards integrating mental health as a topic on the regular teaching curriculum. Offering regular lessons on mental health and illness to all students further allows to also reach those young people who hold negative stereotypes and would not choose to participate in a project week. The selection effects observed in the present study could thus be avoided.

In conclusion, results of the project evaluation support the assumption that targeting young people with antistigma interventions is a promising approach to counteracting stigma and discrimination because of schizophrenia. School level interventions starting from the young people's own experiences appear to be well-suited to facilitate the future generation to approach the topic of mental health with more openness, to be better informed about mental illnesses such as schizophrenia and to meet people who have had a mental illness with more tolerance and understanding.

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