Association Between Familiarity with Mental Disorders and Stigma Discrimination Related to Mental Disorders Among Colombian Students

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ABSTRACT

Children and adolescents with mental disorders are often discriminated against by their peers in the school context. However, knowing the variables associated with stigma discrimination related to mental disorders (SDRMD) in each school community is crucial. The study aimed to estimate the relationship of familiarity with mental disorders with SDRMD among students in Santa Marta, Colombia. A cross-sectional study was conducted. Familiarity with mental disorders and SDRMD were measured with the Reported and Intended Behavior Scale. Three hundred fifty students were aged between 10 and 17 years (13.34 ± 1.78), and 188 (53.71%) were girls. Having a close friend with a mental health problem (odds ratio = 0.17, 95% CI, 0.06-0.48) was a protective factor for SDRMD. Having a close friend with a mental health problem is protective against SDRMD among Colombian school students.

INTRODUCTION

Stigma discrimination related to mental disorders (SDRMD) is widely distributed in the population, regardless of age, schooling level, and income.[1-7] The SDRMD is based on distorted concepts about people who meet the criteria for a mental disorder.[8,9] People living with a mental disorder are often described as aggressive, dangerous, dependent, handicapped, irrational, or uncontrollable,[8,10,11] Children and adolescents with mental disorders are often discriminated against by their peers in the school context.[12]

Around the world, several programs have been implemented to reduce SDRMD in adolescents.[13,14] However, few studies have focused on specifying the variables associated with SDRMD among children and adolescents.[1,2]

Familiarity with mental disorders (FMD) can usually be defined as presenting a mental condition or having relatively close exposure or social or interpersonal contact with mental disorders because a family member, friend, or neighbor meets the criteria for a mental illness.[15,16] Familiarity with mental disorders has been linked to lower SDRDM.[15-17] General familiarity frequently reduces people's fear, discomfort, and mistrust.[18]

On the other hand, the scarce findings regarding FMD and SDRMD among adolescents are less consistent.

García-Soriano and Roncero,[19] using a vignette-based questionnaire, found higher levels of stigma discrimination toward people described as having an obsessive-compulsive disorder, especially in male adolescents with no previous experience with mental health services or providers. Moreover, Trompeter et al[20] asked a group of adolescents 3 questions to find out if they, a family member, or a friend had experienced problems similar to characters with mental problems in some vignettes. The authors found that adolescents exposed to mental health problems showed less SDRMD than those who denied this experience, especially among girls and the youngest adolescents. Nevertheless, Corrigan et al,[21] with a vignette depicting a person diagnosed with schizophrenia, documented that familiarity with mental disorders increased the odds of SDRMD. Al Omari et al,[22] applying an attitude questionnaire, reported that "having a family member with a mental illness" was related to less SDRMD and "having a friend with a mental illness" was not.

Among adolescents, high SDRMD is a barrier to access and may explain a few mental health help-seeking behaviors.[9,23] It is crucial to know the variables associated with SDRMD to design appropriate and effective actions to reduce stigma

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discrimination according to the characteristics of each school community.[24,25]

The study aimed to determine the association between FMD and SDRMD among Colombian school-going students.

MATERIAL AND METHODS

Design and Ethical Issues

The authors designed a cross-sectional study. The Institutional Ethical Board of the University of Magdalena, Santa Marta, Colombia (Approval No: N/A, Date: July 18, 2017). revised and approved the research in an ordinary session on July 18, 2017. Parents signed the informed consent, and students agreed to participate. The Reported and Intended Behavior Scale (RIBS) is a free tool, and it was used with the authors' permission.

Sample

The participants were selected by convenience; that is, it was a non-random sampling, from 2 middle-income schools in Santa Marta, Colombia. This pair of schools was chosen because they were part of a university's health education extension program in secondary institutions where 2 authors work. A sample of at least 272 students was expected. This sample size was adequate for an expected prevalence of 23% (±5) for high SDRMD and a confidence level of 95%;[26] this frequency was observed in a similar study in Colombian medical students.[3] Similarly, this sample size allowed block adjusting for up to 6 variables at a rate of one variable for every 10 cases of high SDRMD.[27]

The selection criteria were age between 10 and 17 years, adequate literacy, and studying between sixth and eleventh grades. In Colombia, primary education only has 5 grades; completing primary and secondary takes 11 years. There were no exclusion criteria.

Measurement

Students completed a questionnaire in the classroom after a short and straightforward explanation of how to complete the questionnaire. This questionnaire included demography information (age, gender, and grade) and the RIBS.[28]

MAIN POINTS

- Stigma/discrimination related to mental disorders is common among adolescent students.
- Familiarity with mental disorders can reduce discomfort when interacting with people who meet the criteria for a mental disorder.
- Having a close friend with a mental disorder is the most important protective factor against stigma/discrimination among Colombian adolescent students.

Reported and Intended Behavior Scale

The RIBS has 2 components. The first part consists of 4 yes or no questions about having a family member, neighbor, partner, or friend who meets the criteria for a mental disorder.[28] These experiences or contacts were taken as FMD.[29]

The second component of the RIBS is a Likert-type response pattern scale that addresses the future attitude toward a person who meets the criteria for a mental disorder at home, in the neighborhood, at school, or in continuing a friendship. The scores ranged from strongly agree (score 1) to strongly disagree (score 5), with a total score between 4 and 20. The RIBS internal consistency in that study was high, with a Cronbach's alpha of 0.85.[28] Scores equal to or greater than 13 were categorized as high SDRMD.

Statistical Analysis

Descriptive analysis established frequencies and percentages for categorical variables and mean (±SD) for quantitative variables. Data normalities were calculated with the Shapiro-Francia test in the Stata Statistical Software release 14.[30] Moreover, the age was also divided into 10 and 13, and 16 or 17, and Cronbach's alpha was computed to corroborate the internal consistency of the RIBS. The bivariate analysis included establishing the association of FMD with SDRMD using the odds ratio (OR), with a 95% confidence interval (95% CI). The 95% CI with significant value always presents $P < .05$. Finally, OR was adjusted for variables with a significant association or probability value of less than 20%.[31] Adjustment was performed using binary logistic regression. Hosmer–Lemeshow chi-squared was applied to verify the model's goodness of fit.[32] Analyses were carried out using Statistical Package for Social Sciences Statistics software for Windows, version 23.0 (IBM SPSS Corp.; Armonk, NY, USA).[33]

RESULTS

Three hundred fifty students participated in the study, aged between 10 and 17 years (13.34 ± 1.78), and 236 (67.43%) took middle-school grades and 114 (32.57%) high-school grades. More information is presented in Table 1.

Stigma discrimination related to mental disorder scores were between 4 and 20 (10.79 ± 3.99), with a high stigma discrimination score of 99 (28.29%). The RIBS in the current analysis presented a high internal consistency (Cronbach's alpha of 0.88). The percent of affirmative responses in the first part of the RIBS are in Table 2.

The SDRMD was significantly correlated with having a close friend with a mental health problem and knowing a neighbor with a mental health problem. Age and gender presented a

Table 1. Demographical Characteristics of the Sample

Variable	Category	n (%)
Age (years)	Between 10 and 13	130 (37.14)
	16 or 17	220 (62.86)
Gender	Female	188 (53.71)
	Male	162 (46.29)
Grade	Sixth	70 (20.00)
	Seventh	56 (16.00)
	Eighth	59 (16.86)
	Ninth	51 (14.57)
	Tenth	70 (20.00)
	Eleventh	44 (12.57)

Table 2. Affirmative Answers for the First Part of Reported and Intended Behavior Scale

The First Part of Reported and Intended Behavior Scale	Yes (%)
Live with someone who has a mental health problem	35 (10.00)
Study with someone who has a mental health problem	61 (17.43)
Know a neighbor who has a mental health problem	87 (24.86)
Have a close friend who has a mental health problem	59 (16.86)

probability of less than 20% and were considered to adjust the association of FMD with SDRMD.

Finally, after adjusting, only "having a close friend with a mental health problem" kept a statistically significant association. All Hosmer-Lemeshow chi-squared tests were acceptable, that is, with *P*-values greater than .05.[34] In summary, "having a close friend with a mental health problem" was configured as a protective factor against SDRMD; it was associated with a more positive attitude towards mental disorders. However, "live with someone who has a mental health problem," "study with someone who has a mental health problem," and "know a neighbor who has a mental health problem" were independent of SDRMD. See crude and adjusted OR in Table 3.

DISCUSSION

The present study shows that Colombian school-going pre-adolescents and adolescents with a close friend with a mental health problem are 6 times less likely to report SDRMD.

The most striking aspect of the current study was that only having a close friend with a mental health problem was associated with a lower probability of SDRMD. Other studies have documented similar findings. García-Soriano and Roncero[19] and Trompeter et al[20] reported that some FMD is related to less SDRMD. However, Corrigan et al[21] observed that FMD could increase SDRMD. The relationship between FMD and SDRMD could be more complex because Al Omari et al[22] documented a differential situation: "having a family member with a mental illness" can reduce SDRMD and "having a friend with a mental illness" can increase it.

Theoretically, close FMD reduces SDRMD because the deep interaction and knowledge of people with a mental disorder can decrease prejudice and stereotypes about mental health problems.[15,18,29] However, some data suggest that this association can be modulated by other variables such as age, gender, and income. Generally, people with more years of age, female gender, and higher income show a more favorable attitude towards people with mental disorders.[19,20,35,36] It is necessary to consider especially low- and middle-income countries, such as Colombia, because poverty and inequity are a syndemic favoring SDRMD. In these countries, there is a high frequency of people with little formal education, people with mental health illiteracy, and people living with mental disorders without access to health services, to the point that low- and middle-income countries account for 80% of the mental health disease burden worldwide.[37,38]

Table 3. Crude and Adjusted Association Between Familiarity with Mental Disorder and Stigma Discrimination Related to Mental Disorders

Variable	OR (95% CI)	aOR[a] (95% CI)	P
Live with someone who has a mental health problem			
Yes	0.61 (0.26-1.44)	0.68 (0.28-1.64)[b]	.392
No	reference	reference	
Study with someone who has a mental health problem			
Yes	0.88 (0.47-1.65)	0.99 (0.52-1.89)[c]	.980
No	reference	reference	
Know a neighbor who has a mental health problem			
Yes	0.54 (0.30-0.97)	0.59 (0.32-1.07)[d]	.083
No	reference	reference	
Have a close friend who has a mental health problem			
Yes	0.15 (0.05-0.43)	0.17 (0.06-0.49)[e]	.001
No	reference	reference	

[a]Adjusted by age and gender.
[b]Hosmer–Lemeshow chi-squared=0.93, df=4, *P*=.920. Overall *P*-value of model=.002.
[c]Hosmer–Lemeshow chi-squared=2.82, df=5, *P*=.728. Overall *P*-value of model=.003.
[d]Hosmer–Lemeshow chi-squared=2.60, df=6, *P*=.857. Overall *P*-value of model=.001.
[e]Hosmer–Lemeshow chi-squared=2.03, df=4, *P*=.730. Overall *P*-value of model=.001.

Practical Implications

The SDRMD is a potent stressor among school-going children and adolescents who meet the criteria for a mental disorder.[12] Stigma discrimination related to mental disorders reduces the possibility of service use when mental health symptoms or problems occur and is needed for an evaluation by health professionals.[9,23] All professionals working in psychiatry play a crucial role in reducing SDRMD; they can implement actions in different contexts and levels to increase knowledge and social contact with people living with mental disorders and reduce the cognitive, affective, and behavioral aspects related to SDRMD.[13,14,39] Yuksel et al[40] observed that medical students significantly reduced scores on dangerousness, a major mental health stigma, of people living with mental disorders after visiting a community mental health center.

Study's Strengths and Limitations

This study has the great strength of measuring four forms of FMD and SDRMD with a valid and reliable instrument.[28] Nevertheless, it presents the limitation that it had a convenience sample, and the findings are limited to these participants attending middle-income schools; consequently, it is impossible to generalize the findings to all high school students in the city.[26] Future research should have a probabilistic selection of adolescent students of all socioeconomic strata or incomes.[41] Research such as this supports the need for more diagnostic studies and actively implementing strategies to reduce SDRMD. These studies are scarce in low- and middle-income countries.[42]

Having a close friend with a mental health problem is protective against SDRMD in some high school students of Santa Marta, Colombia. Further research is needed to determine the variables associated with SDRMD in a representative sample of Colombian high school students.

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