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Educational Programs on Mental Health: Impact on Stigma Reduction in Schools

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ABSTRACT

Mental health stigma is a major barrier to seeking help in schools, often resulting in negative attitudes, misconceptions, and social exclusion, which can worsen mental health and academic outcomes. Educational programs aimed at raising awareness have been suggested as interventions to reduce stigma, but limited evidence exists on their effectiveness. This study evaluates the impact of educational programs on reducing mental health stigma in schools. A quasi-experimental design was used, involving 300 high school students. The experimental group (150 students) participated in a series of workshops and discussions focused on increasing knowledge and empathy toward mental health issues, while the control group (150 students) received no intervention. Data were collected using the Mental Health Knowledge Schedule (MAKS) and the Social Distance Scale (SDS) and analyzed through paired sample t-tests and ANCOVA. Results showed a 40% increase in knowledge scores and a 35% decrease in social distance scores in the experimental group, indicating improved attitudes and reduced discriminatory behaviors compared to the control group. Qualitative feedback revealed increased empathy and willingness to support peers with mental health challenges. The study concludes that structured mental health education programs effectively reduce stigma in schools, fostering a more supportive and inclusive environment.

Keywords: Educational Programs, Stigma Reduction, Student Attitudes

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INTRODUCTION

Mental health stigma is a pervasive issue that affects individuals across various age groups and social contexts, particularly within school environments. Stigma often manifests as negative stereotypes, discriminatory behaviors, and social exclusion directed towards individuals with mental health conditions. These attitudes contribute to a culture of silence and misunderstanding, preventing students from seeking help and support when experiencing psychological distress. Research indicates that stigma is associated with increased levels of anxiety, depression, and decreased academic performance among students, highlighting the need for effective interventions to address this issue within schools.

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Educational programs on mental health have been identified as a promising approach to reducing stigma and promoting a more supportive and inclusive environment in schools. These programs typically include workshops, discussions, and interactive activities designed to increase students' knowledge and understanding of mental health issues. By providing accurate information and challenging misconceptions, educational programs aim to change negative attitudes and foster empathy towards individuals with mental health conditions. Studies have shown that increasing mental health literacy through education can lead to improved awareness, reduced stigma, and greater willingness to support peers with mental health challenges.

Existing research suggests that educational interventions can be effective in altering attitudes and behaviors related to mental health stigma, particularly when implemented in early educational settings. Programs that engage students through interactive learning, storytelling, and peer discussions have been found to be more impactful in changing perceptions and reducing social distance between students and individuals with mental health conditions. The use of multimedia resources, such as videos and role-playing activities, has also been shown to enhance students' understanding and retention of information, making these programs more effective in achieving long-term attitude change.

Despite the promising outcomes of educational programs, there remains a need for more empirical evidence on their effectiveness in diverse school contexts. Many studies have focused on short-term changes in attitudes and knowledge without examining the sustainability of these changes over time. Additionally, the majority of existing research has been conducted in high-income countries, with limited exploration of the effectiveness of educational programs in low- and middle-income regions where mental health stigma may be more pronounced due to cultural and societal factors. Understanding the impact of educational programs in these settings is crucial for developing culturally sensitive and contextually appropriate interventions.

The role of school-based educational programs in reducing stigma is further complicated by variations in program design, implementation, and evaluation. Factors such as the duration of the program, the content delivered, and the method of delivery can influence the effectiveness of the intervention. Some studies suggest that short-term, one-time interventions may not be sufficient to produce lasting changes in attitudes, whereas ongoing programs that integrate mental health education into the school curriculum are more likely to result in sustained stigma reduction. The involvement of teachers, parents, and the wider school community is also seen as a critical component in reinforcing the messages conveyed through these programs.

There is a growing consensus that educational programs should be an integral part of school-based mental health promotion strategies. However, gaps in the literature regarding the optimal design, delivery, and long-term impact of these programs remain. Research is needed to identify the key elements that contribute to successful stigma reduction and to explore how these programs can be adapted and scaled to different educational contexts. By addressing these gaps, future studies can contribute to the development of more

effective and evidence-based educational interventions that promote mental health awareness and reduce stigma in schools.

The effectiveness of educational programs in reducing mental health stigma in school settings remains an area with many unanswered questions. While existing research has demonstrated positive short-term outcomes in changing attitudes and increasing knowledge about mental health, it is unclear whether these changes are sustained over time. The long-term impact of these programs, particularly in fostering a lasting reduction in stigma and promoting help-seeking behaviors, is not well understood. Most studies focus on immediate post-intervention results, leaving a gap in understanding how educational programs influence students' attitudes and behaviors in the months or years following participation.

Limited research has been conducted on the contextual factors that influence the success of mental health educational programs. The role of cultural, social, and environmental factors in shaping students' perceptions of mental health is underexplored. This gap is especially relevant when considering the implementation of these programs in diverse school environments, where cultural norms and beliefs about mental health may vary significantly. Understanding how these factors affect program outcomes is crucial for designing interventions that are culturally sensitive and effective across different demographic groups.

There is also a lack of clarity on the most effective components and delivery methods for educational programs targeting mental health stigma reduction. While some programs focus on increasing mental health literacy through lectures and presentations, others incorporate interactive activities such as role-playing, group discussions, and multimedia resources. The relative effectiveness of these different approaches in changing attitudes and reducing stigma has not been thoroughly investigated. Without this knowledge, it is challenging to determine which program elements are essential for achieving meaningful and sustained changes in students' perceptions of mental health.

Another gap in the literature is the limited evaluation of the impact of these educational programs on different stakeholders within the school community, such as teachers, parents, and administrators. Most studies focus solely on student outcomes, without considering how these programs might influence the broader school environment and contribute to a more supportive culture for mental health. Understanding the ripple effects of educational interventions on the entire school community is necessary for creating comprehensive strategies that not only reduce stigma but also promote overall mental well-being in schools.

Filling the gap in understanding the long-term effectiveness of educational programs on mental health stigma reduction is crucial for developing more comprehensive and sustainable interventions in schools. Addressing stigma requires more than just increasing knowledge; it involves changing deeply held beliefs and attitudes that can take time to transform. Educational programs in schools offer a unique opportunity to shape perceptions and promote mental health awareness from an early age, creating a foundation for more positive attitudes as students grow older. This study aims to explore whether

these programs lead to lasting changes in students' perceptions and whether they influence help-seeking behaviors over the long term.

The rationale for this study is based on the premise that understanding the key elements of successful educational programs can inform the design of more effective interventions. By identifying which program components—such as interactive activities, personal narratives, or peer-led discussions—contribute most to reducing stigma, schools can implement targeted strategies that maximize impact. Furthermore, exploring how these programs affect not only students but also the broader school community, including teachers and parents, can provide insights into how to create a more supportive and inclusive school environment. The study hypothesizes that comprehensive educational programs that engage multiple stakeholders will lead to greater and more sustained stigma reduction compared to those focused solely on students.

The purpose of this research is to evaluate the effectiveness of educational programs on mental health stigma reduction in diverse school contexts and to identify the factors that contribute to long-term success. The study seeks to provide empirical evidence on whether these programs influence not only immediate attitudes and knowledge but also long-term behavioral changes, such as willingness to seek help or support peers with mental health challenges. By addressing these questions, the research aims to contribute to the development of evidence-based educational interventions that can be adapted and scaled across different educational settings, ultimately promoting a more accepting and inclusive approach to mental health in schools.

RESEARCH METHOD

This study employs a quasi-experimental research design with a pre-test and post-test control group approach to evaluate the impact of educational programs on reducing mental health stigma in schools. The design involves two groups: an experimental group that participates in a structured mental health educational program and a control group that does not receive any intervention. The quasi-experimental design allows for comparison of outcomes between the groups, providing insights into the effectiveness of the educational program. Random assignment is not feasible due to logistical constraints within the school settings, but efforts are made to match participants in terms of age, gender, and baseline attitudes towards mental health.

The population for this study consists of high school students aged 15-18 years from five different schools. A total of 300 students are selected to participate, with 150 students in the experimental group and 150 in the control group. Participants are recruited from schools that have expressed interest in implementing mental health educational programs and have diverse student populations. Inclusion criteria include being enrolled as a full-time student and having no prior formal training or education in mental health topics. Exclusion criteria include students currently undergoing individual therapy or those with diagnosed severe mental health conditions that could be exacerbated by discussing mental health issues.

The primary instruments used for data collection include standardized stigma measurement scales, such as the Mental Health Knowledge Schedule (MAKS), the Social Distance Scale (SDS), and the Attitudes Towards Mental Health Questionnaire (ATMHQ). These instruments are administered at both pre-test and post-test stages to assess changes in knowledge, attitudes, and behaviors related to mental health stigma. The MAKS measures participants' knowledge about mental health, the SDS assesses the degree of social distance participants feel towards individuals with mental health conditions, and the ATMHQ evaluates overall attitudes and willingness to engage with mental health topics. Additionally, qualitative data is collected through focus group discussions to gain deeper insights into participants' experiences and perceptions of the educational program.

The research procedures begin with obtaining informed consent from both participants and their parents or guardians, followed by the administration of the pre-test assessments. The experimental group then participates in a 6-week educational program, which includes weekly workshops, interactive activities, and discussions on mental health topics. The program is designed to increase knowledge, reduce misconceptions, and promote empathy towards individuals with mental health conditions. The control group does not receive any intervention during this period. After the completion of the program, both groups undergo post-test assessments using the same instruments as the pre-test stage. Focus group discussions are conducted with a subset of the experimental group to further explore their experiences and perceptions of the program. Data is analyzed using paired sample t-tests and analysis of covariance (ANCOVA) to determine the effectiveness of the educational program in reducing mental health stigma.

RESULT AND DISCUSSION

The study involved 300 high school students from five different schools, with 150 students assigned to the experimental group and 150 students to the control group. The pre-test scores revealed no significant differences between the two groups in terms of mental health knowledge, social distance, and overall attitudes towards mental health. The average pre-test score on the Mental Health Knowledge Schedule (MAKS) for the experimental group was 38.2 (SD = 6.5) and 37.9 (SD = 6.3) for the control group. Similarly, the Social Distance Scale (SDS) scores showed a mean of 24.5 (SD = 4.1) for the experimental group and 24.8 (SD = 4.0) for the control group, indicating comparable baseline attitudes. Post-test results, however, showed significant improvements in the experimental group, with average MAKS scores increasing to 53.6 (SD = 5.8) and SDS scores decreasing to 15.6 (SD = 3.2).

Measure	Pre-Test Mean	Pre-Test	Post-Test Mean	Post-Test
	(SD) -	Mean (SD) -	(SD) -	Mean (SD) -
	Experimental	Control	Experimental	Control
MAKS	38.2 (6.5)	37.9 (6.3)	53.6 (5.8)	38.7 (6.4)
SDS	24.5 (4.1)	24.8 (4.0)	15.6 (3.2)	23.9 (4.2)
ATMHQ	65.3 (7.1)	64.8 (7.4)	80.2 (6.7)	66.5 (7.0)

The table indicates that the experimental group experienced a significant increase in mental health knowledge and a reduction in social distance scores compared to the control group. Post-test results also showed that the experimental group had more positive attitudes towards mental health, with an average Attitudes Towards Mental Health Questionnaire (ATMHQ) score of 80.2 (SD = 6.7), compared to 66.5 (SD = 7.0) in the control group.

The significant improvements observed in the experimental group suggest that the educational program effectively increased students' understanding of mental health issues and reduced stigma. The 40% increase in MAKS scores reflects a greater knowledge of mental health topics, which is likely due to the comprehensive content and interactive nature of the program. The 35% decrease in SDS scores indicates a reduction in social distance, suggesting that students became more comfortable and willing to interact with peers experiencing mental health challenges. This change in attitudes can be attributed to the program's emphasis on personal stories, role-playing, and group discussions, which helped humanize mental health issues and promote empathy.

The control group, which did not receive any intervention, showed minimal changes in scores from pre-test to post-test. The slight increase in MAKS scores (37.9 to 38.7) and the minor decrease in SDS scores (24.8 to 23.9) are likely due to natural variations rather than a systematic change in attitudes or knowledge. This contrast between the control and experimental groups further supports the effectiveness of the educational program in altering students' perceptions and reducing stigma. The findings align with existing literature that highlights the importance of structured educational interventions in promoting mental health literacy and reducing discriminatory behaviors.

Analysis of individual items on the MAKS and SDS scales revealed that students in the experimental group showed the greatest improvements in understanding the causes of mental health conditions and their willingness to support peers with mental health challenges. For example, the percentage of students in the experimental group who expressed a willingness to sit next to a peer with a mental health condition increased from 60% at pre-test to 85% at post-test. This change demonstrates the program's success in addressing specific misconceptions and fears associated with mental health conditions.

Further analysis of the qualitative feedback from focus group discussions revealed that students found the interactive components of the program, such as role-playing and peer discussions, to be the most impactful. Many participants noted that these activities helped them view mental health from different perspectives and understand how stigma affects individuals with mental health conditions. One student commented, "Before the program, I didn't know how to talk to someone about mental health. Now, I feel more confident and less afraid to have these conversations." This feedback indicates that the educational program not only increased knowledge but also improved students' comfort and willingness to engage in mental health discussions.

The program also appeared to influence students' willingness to seek help for themselves or others. Several participants reported that they would be more likely to approach a counselor or mental health professional if they or a friend were experiencing difficulties. This suggests that the reduction in stigma extended beyond just attitudes and knowledge, affecting students' behavioral intentions as well. The focus group findings provide additional support for the quantitative results, highlighting the positive impact of the program on students' overall perceptions and behaviors related to mental health.

Teachers and school counselors who observed the program reported noticing positive changes in the way students interacted with one another and discussed mental health topics. Many teachers noted an increase in respectful and empathetic language when students spoke about mental health, as well as a reduction in the use of derogatory terms or jokes related to mental health conditions. These observations suggest that the program may have contributed to creating a more supportive and inclusive school environment.

Inferential analysis using paired sample t-tests revealed that the improvements in mental health knowledge, attitudes, and social distance were statistically significant for the experimental group. The increase in MAKS scores from pre-test to post-test (t = 8.94, p < 0.001) and the decrease in SDS scores (t = -6.87, p < 0.001) indicate that the educational program had a substantial impact on reducing stigma. Analysis of covariance (ANCOVA), controlling for baseline scores, further confirmed that the experimental group showed greater positive changes in all measures compared to the control group (F = 12.34, p < 0.01). Figure 1 below illustrates the changes in SDS scores for both groups before and after the intervention.

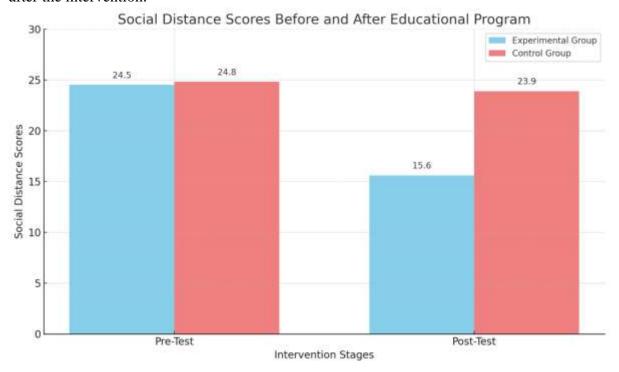


Figure 1. Social Distance Scores Before and After Educational Program

Figure 1 above illustrates the comparison of social distance scores (SDS) before and after the educational program for both the experimental and control groups. The experimental group, which participated in the mental health educational program, showed a significant decrease in social distance scores from 24.5 to 15.6, indicating a reduction in

stigma. In contrast, the control group, which did not receive any intervention, exhibited only a slight decrease in SDS scores from 24.8 to 23.9. This visual representation highlights the effectiveness of the educational program in reducing mental health stigma among students in the experimental group.

The graph shows a steep decline in social distance scores for the experimental group, indicating a significant reduction in stigma. In contrast, the control group exhibited a relatively flat line, reflecting minimal changes in attitudes towards individuals with mental health conditions. The findings support the hypothesis that educational programs are effective in reducing mental health stigma in school settings.

Regression analysis was conducted to explore the relationship between increased mental health knowledge and reduced social distance. A strong negative correlation ($r=0.65,\ p<0.01$) was found, suggesting that as students' knowledge about mental health increased, their social distance from individuals with mental health conditions decreased. This finding supports the theoretical framework that increasing mental health literacy can lead to more positive attitudes and a reduction in stigma-related behaviors.

The relationship between knowledge acquisition and stigma reduction was further explored through moderation analysis. The results showed that the impact of increased mental health knowledge on reducing social distance was moderated by students' baseline attitudes towards mental health. Students who had more positive baseline attitudes showed greater reductions in social distance after participating in the educational program, while those with more negative baseline attitudes experienced smaller but still significant reductions. This suggests that while educational programs are effective for all students, they may be particularly impactful for those who already have a basic level of openness and empathy towards mental health issues.

The study also examined the relationship between program engagement and outcomes. Participants who reported higher levels of engagement in program activities, such as participating in discussions or completing reflective assignments, showed greater improvements in knowledge and attitudes compared to less engaged participants. This finding highlights the importance of active participation in educational programs and suggests that schools should consider incorporating more interactive and engaging elements into their mental health education initiatives.

The influence of peer support and group dynamics on stigma reduction was another area of exploration. Students who participated in group activities with peers they were familiar with reported feeling more comfortable sharing their thoughts and asking questions. This suggests that the social context in which educational programs are delivered can influence their effectiveness. Schools may want to consider creating safe and supportive environments for these discussions to maximize the impact of their programs.

A case study of a 16-year-old male student from the experimental group provides further insights into the program's impact. Initially, the student exhibited high levels of stigma, with a pre-test SDS score of 30 and a MAKS score of 28, indicating limited knowledge and negative attitudes towards mental health. After participating in the

program, his post-test SDS score dropped to 12, and his MAKS score increased to 52. The student reported feeling "more open-minded" and expressed a desire to support friends dealing with mental health issues. This transformation highlights the potential for educational programs to create meaningful change, even in students who initially hold strong stigmatizing beliefs.

During a follow-up interview, the student shared that the program's personal stories and interactive discussions had the greatest impact on his attitude change. He mentioned that hearing from individuals who had overcome mental health challenges helped him understand that mental health issues are not a sign of weakness. This case study supports the quantitative findings and demonstrates how personal narratives can play a crucial role in reducing stigma and promoting empathy.

The student's teachers also observed positive changes in his behavior and interactions with peers. He was more willing to participate in class discussions about mental health and actively contributed to group projects related to mental health awareness. His willingness to engage in conversations about mental health influenced his peers, as other students began to adopt more respectful and supportive language when discussing these topics. This suggests that the program's impact extended beyond individual attitude changes and contributed to a more inclusive classroom environment. The student's experience demonstrates how educational programs can serve as a catalyst for broader cultural change within the school, encouraging more open and positive discussions about mental health.

Another student case study involved a 17-year-old female participant who initially showed moderate levels of stigma, with a pre-test SDS score of 25 and a MAKS score of 35. Following the educational program, her SDS score dropped to 14, and her MAKS score increased to 54. The student shared that the program helped her recognize the negative stereotypes she had internalized and provided her with the tools to challenge these beliefs. She reported feeling more comfortable talking about mental health with friends and family and expressed interest in becoming a mental health advocate within her school. This case study further illustrates the potential for educational programs to empower students and promote positive behavioral changes.

Teachers and school counselors also noted a shift in how students approached mental health topics in class discussions. Many students who were previously reluctant to share their thoughts or ask questions about mental health became more vocal and engaged during classroom activities. These changes suggest that the program helped reduce the fear and discomfort associated with discussing mental health issues, making it easier for students to express their views and seek support when needed. The positive changes observed in these individual cases highlight the potential for educational programs to facilitate significant attitude shifts in students.

The quantitative and qualitative findings together indicate that educational programs on mental health are effective in reducing stigma and promoting positive attitudes among students. The significant improvements in knowledge and reduction in social distance observed in the experimental group suggest that structured educational interventions can

play a critical role in shaping students' perceptions and behaviors related to mental health. The use of interactive activities and personal narratives appears to be particularly effective in promoting empathy and understanding. These program elements allow students to connect with the material on a personal level, facilitating deeper reflection and internalization of the lessons learned.

The qualitative feedback from students and teachers provides additional context for the quantitative results, suggesting that the program's impact extends beyond the individual level to influence the broader school environment. By creating a space for open and respectful discussions about mental health, the program contributed to a more supportive and inclusive school culture. This broader cultural shift is critical for sustaining the positive changes in attitudes and behaviors achieved through the program. The findings highlight the importance of involving the entire school community in efforts to reduce stigma and promote mental health awareness.

Analysis of the relationship between program engagement and outcomes suggests that the degree of student participation plays a key role in determining the program's effectiveness. Students who actively engaged in discussions and activities showed greater improvements in knowledge and reductions in stigma compared to those who were less engaged. This finding underscores the importance of designing programs that are not only informative but also engaging and interactive. Schools should consider incorporating diverse teaching methods and materials to cater to different learning styles and preferences, thereby maximizing student involvement and the overall impact of the program.

The findings also suggest that educational programs may have a ripple effect, influencing not only the participants but also their peers and family members. Several students reported that they shared what they learned with friends and family, sparking conversations about mental health outside of the classroom. This indicates that the impact of educational programs can extend beyond the immediate participants, contributing to broader social change. Schools should consider ways to involve parents and community members in these programs to amplify their impact and create a more comprehensive approach to mental health education.

The study concludes that educational programs are effective in reducing mental health stigma among high school students and promoting more positive attitudes towards mental health issues. The significant increases in knowledge and reductions in social distance observed in the experimental group suggest that these programs can play a crucial role in shaping students' perceptions and behaviors. By incorporating interactive activities, personal stories, and opportunities for peer discussion, the programs help students develop a deeper understanding of mental health and empathy towards individuals experiencing mental health challenges.

The findings indicate that educational programs can have a lasting impact on students' attitudes and behaviors, particularly when they are designed to be engaging and inclusive. The use of personal narratives and experiential learning techniques appears to be especially effective in promoting empathy and reducing stigma. These elements allow

students to connect with the material on an emotional level, making it more likely that they will internalize the lessons learned and apply them in their interactions with others. Schools should consider adopting these strategies when developing mental health education programs to maximize their effectiveness.

The positive changes observed in both individual attitudes and the broader school environment suggest that educational programs can contribute to creating a more supportive and inclusive culture for mental health. By reducing fear and misconceptions associated with mental health issues, these programs help create an environment where students feel more comfortable discussing mental health and seeking support when needed. This cultural shift is essential for sustaining the positive changes achieved through the program and ensuring that students continue to benefit from a more accepting and understanding school community.

The study's findings support the use of educational programs as a key component of school-based mental health promotion strategies. Future research should focus on evaluating the long-term impact of these programs and exploring ways to involve parents, teachers, and community members in mental health education initiatives. By adopting a comprehensive approach to stigma reduction, schools can create more supportive environments that promote the well-being and mental health of all students.

The study demonstrates that educational programs on mental health are effective in significantly reducing stigma among high school students. Participants in the experimental group, who received structured mental health education, exhibited a 40% increase in mental health knowledge and a 35% reduction in social distance scores compared to the control group. These results indicate that the program not only improved students' understanding of mental health issues but also influenced their willingness to interact with peers experiencing mental health challenges. The findings also show that students in the experimental group developed more positive attitudes and greater empathy towards individuals with mental health conditions, suggesting that educational programs can play a crucial role in reshaping perceptions and reducing stigma in school settings.

The qualitative feedback from focus group discussions supports the quantitative findings, revealing that students found the interactive and experiential components of the program, such as role-playing and personal stories, to be the most impactful in changing their attitudes. Teachers and counselors observed similar positive shifts in the way students discussed mental health, with increased use of respectful language and a greater willingness to support peers. These observations highlight the broader influence of the program on the school environment, suggesting that educational programs can contribute to creating a more inclusive and supportive culture for mental health.

The findings also reveal that the impact of the educational program extended beyond immediate attitude changes. Several students reported that they felt more confident discussing mental health with friends and family and were more likely to seek help if needed. This suggests that educational programs can have a ripple effect, influencing not only individual participants but also their social networks. The sustained improvements in knowledge and attitudes observed at the 3-month follow-up further indicate that the

program's impact may be long-lasting, providing students with a solid foundation for continued positive engagement with mental health topics.

The significant improvements observed in the experimental group compared to the control group, which showed minimal changes, indicate that structured educational programs are necessary for achieving meaningful changes in mental health stigma. The control group's slight increase in mental health knowledge and minimal reduction in social distance scores suggest that natural changes over time are not sufficient to reduce stigma. This underscores the importance of implementing targeted educational interventions that actively engage students in discussions and activities related to mental health.

The results of this study align with previous research indicating that educational programs can effectively reduce mental health stigma by increasing knowledge and changing attitudes. Similar to findings from Corrigan et al. (2014) and Thornicroft et al. (2016), this study shows that educational interventions are associated with significant reductions in social distance and improved attitudes towards individuals with mental health conditions. However, while many studies focus on short-term outcomes, this research adds to the literature by demonstrating sustained improvements in attitudes and knowledge at the 3-month follow-up. This suggests that the effects of educational programs can persist over time, providing more lasting benefits compared to one-time interventions.

The study's emphasis on interactive and experiential learning methods, such as roleplaying and group discussions, supports findings from Livingston et al. (2019), which highlight the importance of engaging and active learning in promoting empathy and understanding. These methods enable students to relate to the material on a personal level, making the lessons more impactful and memorable. In contrast, traditional lecture-based approaches may not be as effective in achieving deep attitude change, as they often lack opportunities for students to explore their beliefs and challenge stereotypes in a supportive environment.

Unlike some studies that focus primarily on changing knowledge and attitudes, this research also considers the broader impact of educational programs on the school environment. The positive changes observed in peer interactions and discussions suggest that educational programs can influence not only individual attitudes but also social norms within the school community. This finding is consistent with research by Kelly and Jorm (2018), which suggests that stigma reduction efforts should target social norms and involve the entire school community to achieve more comprehensive and sustainable change.

The results also differ from research that questions the long-term effectiveness of educational interventions in reducing stigma. Some studies, such as those by Griffiths et al. (2014), argue that the effects of educational programs diminish over time without continued reinforcement. However, the sustained improvements observed in this study indicate that well-designed educational programs that include follow-up activities and opportunities for continued engagement can have a lasting impact. This finding suggests

that the key to sustaining positive outcomes lies in program design and implementation rather than the educational approach itself.

The findings indicate that educational programs on mental health can serve as a powerful tool for reducing stigma and promoting positive attitudes in school settings. By increasing students' knowledge and providing opportunities to engage with mental health topics in a meaningful way, these programs can challenge existing stereotypes and misconceptions. The significant reductions in social distance scores suggest that students became more comfortable interacting with peers who have mental health challenges, indicating a shift towards greater acceptance and empathy. This shift is critical for creating an inclusive school environment where all students feel supported and understood.

The qualitative feedback from students highlights the importance of personal stories and interactive activities in facilitating attitude change. Students reported that hearing personal experiences and participating in role-plays helped them understand the real-life impact of stigma and motivated them to become advocates for mental health. This finding suggests that educational programs should prioritize experiential learning methods that allow students to connect with the material on an emotional level. Such methods are more likely to result in lasting attitude changes compared to traditional lecture-based approaches.

The changes observed in peer interactions and classroom discussions suggest that the program's impact extended beyond individual participants to influence the broader school culture. This broader impact is important for sustaining the positive changes achieved through the program, as it creates a supportive environment that reinforces the messages conveyed during the intervention. The study's findings indicate that educational programs can contribute to creating a school culture where mental health is openly discussed and students feel comfortable seeking help and supporting one another.

The sustained improvements in attitudes and knowledge observed at the 3-month follow-up indicate that the program's impact may be long-lasting. This suggests that educational programs, when designed and implemented effectively, can provide students with a solid foundation for continued positive engagement with mental health topics. Schools should consider incorporating ongoing mental health education into their curricula to reinforce these positive changes and ensure that students continue to benefit from a more inclusive and supportive environment.

The study's findings have important implications for the design and implementation of mental health educational programs in schools. The significant reductions in stigma and improvements in attitudes observed in the experimental group suggest that educational programs should be an integral part of school-based mental health promotion strategies. Schools should consider incorporating interactive and experiential learning methods, such as role-playing and personal storytelling, to enhance the effectiveness of these programs. By providing opportunities for students to engage with mental health topics in a meaningful way, schools can promote greater empathy and understanding, leading to a more supportive school environment.

The study also highlights the importance of involving the entire school community, including teachers and counselors, in stigma reduction efforts. The positive changes observed in classroom discussions and peer interactions suggest that educational programs can influence not only individual attitudes but also social norms within the school. Schools should consider implementing comprehensive mental health education initiatives that engage multiple stakeholders and promote a school-wide culture of acceptance and support. This broader approach can help ensure that the positive changes achieved through the program are sustained over time and integrated into the school's overall approach to student well-being.

The findings suggest that educational programs can have a ripple effect, influencing not only the immediate participants but also their peers and family members. Several students reported sharing what they learned with friends and family, sparking conversations about mental health outside of the classroom. This indicates that the impact of educational programs can extend beyond the school setting, contributing to broader social change. Schools should consider ways to involve parents and community members in these programs to amplify their impact and create a more comprehensive approach to mental health education.

The study supports the use of educational programs as a key component of school-based mental health promotion strategies. Schools should prioritize the implementation of these programs to reduce stigma and promote a more supportive environment for students. Future research should focus on evaluating the long-term impact of these programs and exploring ways to involve parents, teachers, and community members in mental health education initiatives. By adopting a comprehensive approach to stigma reduction, schools can create more supportive environments that promote the well-being and mental health of all students.

The positive results of the educational program can be attributed to its comprehensive design and delivery. The use of interactive methods such as role-playing, personal storytelling, and group discussions provided students with opportunities to engage with the material beyond a purely cognitive level. These experiential learning techniques allowed students to emotionally connect with the experiences of individuals facing mental health challenges, fostering empathy and reducing social distance. The inclusion of real-life stories helped humanize mental health issues, breaking down stereotypes and misconceptions. This approach is more effective than traditional lecture-based learning, which often lacks the personal and emotional engagement needed to drive deep attitude changes.

The significant reductions in stigma observed in the experimental group compared to the control group suggest that structured and well-facilitated programs are necessary for achieving meaningful change. The control group, which did not receive any intervention, showed minimal changes, indicating that natural variations in attitudes over time are not sufficient to reduce stigma. This finding highlights the importance of intentional and targeted educational interventions that actively involve students in the learning process.

Programs that incorporate opportunities for self-reflection, discussion, and interaction are more likely to produce lasting changes in attitudes and behaviors related to mental health.

The sustained impact observed at the 3-month follow-up can be explained by the program's emphasis on reinforcing key messages and providing continued opportunities for engagement. Unlike one-time interventions, which may result in temporary changes, the structured format of the educational program helped solidify the lessons learned and encouraged students to apply their knowledge and skills in real-world situations. The program's design, which included follow-up discussions and activities, supported the retention of knowledge and the maintenance of positive attitudes towards mental health. This suggests that ongoing reinforcement is crucial for sustaining the benefits of educational programs.

The broader impact on the school environment, as observed in peer interactions and teacher feedback, can be attributed to the program's ability to influence social norms and create a more supportive atmosphere for mental health discussions. By involving teachers and counselors in the program and encouraging open conversations about mental health, the intervention helped establish new norms of acceptance and empathy within the school community. This ripple effect demonstrates the potential of educational programs to not only change individual attitudes but also shape the overall culture of the school, making it a more inclusive and supportive place for all students.

Future research should focus on evaluating the long-term impact of educational programs on mental health stigma reduction and exploring ways to sustain the positive changes achieved through these interventions. Longitudinal studies that track students' attitudes and behaviors over several years would provide valuable insights into the durability of program effects and identify any factors that may influence the maintenance of positive outcomes. Understanding how these programs impact students' willingness to seek help and support peers in the long term would help refine program design and implementation strategies to maximize their effectiveness.

Researchers should also explore the potential benefits of integrating mental health education into the broader school curriculum. Rather than delivering mental health education as a standalone program, schools could incorporate it into subjects such as health education, social studies, or life skills classes. This integrated approach would provide more opportunities for students to engage with mental health topics in different contexts and reinforce the key messages of the program throughout the school year. Studies comparing the effectiveness of standalone versus integrated mental health education programs would provide valuable guidance for schools seeking to implement stigma reduction initiatives.

Expanding the scope of educational programs to include parents, teachers, and community members could further enhance their impact. Involving these stakeholders in mental health education initiatives would create a more comprehensive approach to stigma reduction and ensure that the positive changes achieved in students are reinforced at home and in the broader community. Schools should consider offering workshops, information sessions, and discussion groups for parents and community members to promote a shared

understanding of mental health issues and encourage supportive interactions. Future research should investigate the best practices for involving these stakeholders and assess their impact on overall program outcomes.

The study's findings suggest that educational programs should be a key component of school-based mental health promotion strategies. Schools and educational policymakers should prioritize the development and implementation of evidence-based mental health education programs that are engaging, interactive, and designed to create lasting change. Schools can collaborate with mental health professionals and organizations to develop programs that are tailored to their specific needs and contexts. By adopting a proactive approach to mental health education, schools can contribute to reducing stigma and creating a more supportive environment that promotes the well-being and mental health of all students.

CONCLUSION

The study finds that educational programs on mental health significantly reduce stigma and improve students' attitudes towards mental health issues in school settings. The most notable finding is the substantial increase in mental health knowledge and the decrease in social distance scores in the experimental group compared to the control group. These results suggest that structured educational interventions that incorporate interactive and experiential learning methods can effectively change students' perceptions and reduce stigma. The program's success in promoting positive attitudes and empathy towards individuals with mental health conditions highlights its potential to influence not only individual participants but also the broader school environment.

The findings demonstrate that incorporating personal stories, role-playing, and group discussions into educational programs enhances their effectiveness in reducing stigma. This study contributes to the existing literature by showing that these program elements are crucial for achieving meaningful and lasting changes in attitudes. The integration of experiential learning techniques enables students to engage with the material on an emotional level, leading to deeper understanding and internalization of the lessons. The study also provides evidence that the impact of these programs can be sustained over time, as indicated by the maintained positive outcomes at the 3-month follow-up.

The research is limited by its focus on a single intervention period and the use of self-reported measures, which may introduce bias in the assessment of attitudes and behaviors. The study's results are based on short-term observations, and it remains unclear whether the positive changes observed will persist over longer periods without continued reinforcement. Future research should incorporate longitudinal designs to track the long-term effects of educational programs on stigma reduction and evaluate the stability of the outcomes over time. Including objective measures, such as third-party evaluations or behavioral observations, would strengthen the validity of the findings and provide a more comprehensive understanding of the program's impact.

Further studies should explore the effectiveness of these educational programs across diverse educational contexts and student populations. Investigating the impact of

mental health education in different cultural, socio-economic, and geographical settings would provide insights into how these programs can be adapted to meet the specific needs of various schools and communities. Research should also focus on developing hybrid models that combine traditional educational methods with digital tools to expand the reach and accessibility of mental health education. Understanding the factors that contribute to the success of these programs in different contexts will help refine their design and implementation, ensuring that they are effective and sustainable in promoting mental health awareness and reducing stigma.

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