Identifying the prerequisites, facilitators, and barriers in improving adolescents' mental health literacy interventions: A systematic review

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Abstract:

The present study aimed at identifying the prerequisites, facilitators, and barriers to adolescent mental health literacy interventions. To that end, databases PsycINFO, Science Direct, Scopus, Emerald, PubMed, Web of Science, and Google Scholar were systematically searched, out of which 39 articles that had the inclusion criteria were analyzed by the content analysis. Databases searched from September 30, 2018, to October 10, 2018, with the keywords "health literacy," "mental health literacy," "mental disorders," adolescents, students, and more. Seven themes were identified as the prerequisites for interventions to improve adolescents' mental health literacy including education at the school level, parents' education, training of trainers and providers, cooperation and participation among providers, intervention assessment and monitoring, provision of educational content, consideration of the cultural and linguistic issues. Five themes were identified as facilitators: using interactive learning and teaching methods, supplying diverse and stimulating educational content, employing trainers with different backgrounds, having direct contact with people with mental illness, and utilizing technological advancements in education. Finally, short-time intervention, the collaboration between school administrators and researchers, lack of valid information sources were identified as barriers.

Keywords:

Adolescents, facilitators, mental health literacy, prerequisites

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Introduction

Mental health is one of the main aspects of public health, which is defined as "a state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and make a contribution to his or her community."[1] According to the World Health Organization, 10%–20% of people experience mental disorders during childhood and adolescence.[2] Mental disorders in adolescents may lead to academic failure, unemployment, drug use, high-risk behaviors, crime, poor sexual health, self-injury, and inappropriate self-care. All these may increase the risk of disability and early mortality among adolescents.[3]

The long-term health and well-being of a society are closely related to the level of health-related education and literacy which people obtain throughout their lives.[4] Mental health literacy is characterized as comprising several components: "(a) the ability to recognize specific disorders or different types of psychological distress, (b) knowledge and beliefs about risk factors and causes, (c) knowledge and beliefs about self-help interventions, (d) knowledge and beliefs about professional help available, (e) attitudes which facilitate recognition and appropriate help-seeking, and (f) knowledge of how to seek mental health information."[5]

Half of the people living with mental illnesses exhibit the first symptoms before the age of 18 years.[6] Studies indicate that many adolescents have low and moderate mental health literacy and cannot identify the psychological problems and professional help-seeking behaviors when required.[7,8] The research suggests that interventions to improve adolescents' mental health literacy may help reduce stigma, increase professional help-seeking behaviors, and facilitate the early detection and treatment of mental disorders.[9,10]

While past reviews[7,11,12] identified the types of effective interventions for improving adolescent mental health literacy, they did not discuss the prerequisites, facilitators, and barriers in conducting those interventions. Thus, the present review aimed to identify the prerequisites, facilitators, and barriers in conducting adolescents' mental health literacy interventions.

Methodology

Databases and search method

The available electronic databases: PsycINFO, Science Direct, Scopus, Emerald, PubMed, Web of Science, and Google Scholar Search Engine were searched from September 30, 2018, to October 10, 2018. The keywords for search included health literacy, mental health literacy, mental disorders, adolescents, students, and more. The search strategy for the PubMed database is presented in Figure 1. After screening the titles and abstracts of the included articles, the reference lists of final articles were also manually searched.

Study selection and analysis strategy

Figure 2 indicates the process of selecting the articles included on the basis of PRISMA statement in this review. After removing the duplicates, the titles and abstracts of the articles were screened by two independent reviewers (X, X) using the following inclusion criteria: studies that provided and described effective interventions conducted for improving the

adolescents' mental health literacy; studies that were published in the English language between 2000 and 2018. The data were analyzed using the conventional content analysis method provided by Graneheim and Lundman.[13] Each of the 39 included articles was coded using a designated form. The themes related were extracted by two independent researchers [A SH, A S].

Results

As shown in the Table 1, 24 (61.51%) studies were trial with the control group. The included studies were mostly conducted in Australia (17.94%), the United States (17.94%), 41.02% of the interventions were curriculum based, and 38.42% of the interventions were performed in <3 h.

Table 1: Included articles study characteristics

Study characteristics	Items	*n* (%)
Study designs	Trial with control group	24 (61.51)
	Trial without control group	10 (25.65)
	Others	5 (12.82)
Countries	United States	7 (17.94)
	Australia	7 (17.94)
	Canada	5 (12.82)
	United Kingdom	4 (10.25)
	China	2 (5.12)
	Not mentioned	7 (17.94)
	others	7 (17.94)
Type of the interventions	Curriculum based	16 (41.02)
	Contact based	3 (7.69)
	Internet based	5 (12.82)
	Drama based	7 (17.95)
	Others	8 (20.51)
Interventions' time	<3 h	17 (43.58)
	36 h	5 (12.82)
	6-10 h	5 (12.82)
	More than 10 h	7 (17.95)
	Not mentioned	5 (12.82)

1. "Health Literacy" [Mesh] OR "Health Literacy" [Title/Abstract]

2. "Child" [Mesh] OR "Adult Children" [Mesh] OR "Adolescent" [Mesh] OR "Students" [Mesh] OR Child*[Title/Abstract] OR "Adolescent" [Title/Abstract] OR "Students" [Title/Abstract] OR Teen*[Title/Abstract] OR "Youth" [Title/Abstract] OR "Young" [Title/Abstract]

3. "Mental Disorders"[Mesh] OR "Mental Disorders"[Title/Abstract] OR "Mental Health"[Mesh] OR "Mental Health"[Title/Abstract] OR "Mental Illness"[Title/Abstract] OR "Psychiatric Disorder"[Title/Abstract] OR "Depression"[Mesh] OR "Depression"[Title/Abstract] OR "Anxiety"[Mesh] OR Anxiety[Title/Abstract] OR "Attention deficit hyperactivity disorder" [Title/Abstract] OR "Attention Deficit Disorder with Hyperactivity" [Mesh] OR "Oppositional Defiant Disorder" [Title/Abstract] OR "Attention Deficit and Disruptive Behavior Disorders" [Mesh]

4. 1 AND 2 AND 3

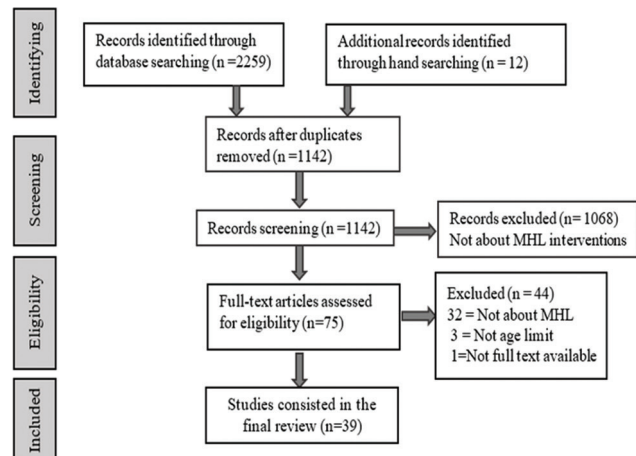**Figure 1:** Search strategy for PubMed

Figure 2: PRISMA Flow Chart of Study

The prerequisites for improving the adolescents' mental health literacy interventions

As shown in Table 2, from the content analysis of 39 articles included in this study, seven themes were identified as the prerequisites for improving the adolescents' mental health literacy interventions.

Education at the school level

In 41.02% of the studies reported that they conducted the mental health literacy educational programs in the school environment. Most of these interventions were provided in the form of health education classes or workshops.[10,14-20]

Parents' education

Parents are considered as a source of support for adolescents. In a number of studies, educating parents was mentioned as a prerequisite to improving the adolescents' mental health literacy.[29,30]

Training of trainers and providers

In 43.58% of the interventions, training of trainers was performed before implementing the educational program. Different methods were utilized to train trainers including self-study,[15,19,32] one-day or half-day workshop,[17,18,20,23,33,34] and a course of at least 5.5 days.[30]

Cooperation and participation among providers

Two types of cooperation and participation in the design and implementation were observed. The first was co-operation among the designers of the educational interventions.[3,14,18,19,24,27,31-33,36-38] The second type of collaboration was between the different trainers.[21,24,27,31-33, 38-40]

Intervention assessment and monitoring

The assessment in these study was conducted at two levels: assessing the trainers[23,35] and assessing the implementation of the intervention.[16,33,42]

Provision of educational content

In 15% of the studies reviewed, educational content was provided for the trainers, which consisted mainly of self-study guides[17,19,29,34] student assignment.[15] A website to provide content and educational tools.[20,42]

Consideration of the cultural and linguistic issues

In three studies, cultural-linguistic issues were addressed before the interventions. In some studies, the content tailored to the local language.[10,39]

The facilitators in improving the adolescents' mental health literacy interventions

Five themes, as shown in Table 3, were identified as facilitators for implementing the interventions to improve adolescent mental health literacy.

Table 2: The prerequisites for improving the adolescents' mental health literacy interventions

Row	Themes	Sources
1	Education at the school level	[10, 14-28]
2	Parents' education	[29, 30]
3	Training of trainers and providers	[7, 15, 17-21, 23, 29-35]
4	Cooperation and participation among providers	[3, 7, 14, 15, 18, 21, 24, 26, 27, 31-33, 36-40]
5	Intervention assessment and monitoring	[16, 23, 33, 35, 41]
6	Provision of educational content	[15, 17, 19, 20, 29, 34, 42]
7	Consideration of the cultural and linguistic issues	[39, 40]

Table 3: The facilitators of adolescents' mental health literacy interventions

Row	Themes	Resources
1	Interactive learning and teaching methods	[9, 10, 15, 17, 19, 23-29, 31, 39, 43-45]
2	Supplying diverse and stimulating educational content	[3, 15, 17-24, 29-31, 33, 36, 38, 40, 41]
3	Employing trainers with different backgrounds	[9, 10, 14, 15, 17-21, 23-28, 31, 33-38, 41]
4	Having direct contact with people with mental illness	[28, 40-42, 44, 45]
5	Utilizing technological advancements in education	[9, 18, 23, 42, 46-48]

Using interactive learning and teaching methods

In 58.9% of the interventions described in the reviewed articles, interactive learning and teaching methods were used. Such methods were provided to adolescents individually[15,17,26,27,30,31,39,44,45] or in groups.[9, 15, 17,19-24, 28-31,43,45] The examples of attractive teaching methods were dance and yoga gestures,[27] storytelling,[41] role-plays,[23,38,45] and games.[25,28,38,42,48]

Supplying diverse and stimulating educational content

Different educational contents were used in educational interventions. Such educational contents can be divided into paper-based,[17,18,20,23,29,33,36] and multimedia-based,[3,15,17-24,29-31,33,36,38,40,41] and drama-based.[25-27]

Employing trainers with different backgrounds

Two or more trainers were used in more than 33% of the interventions. Such trainers were teachers, coaches, and school staff,[9,10,14,15,17-20,23,26,32-34,36,38] health and mental health professionals,[24,27,28,31,37,39]; students,[16,22,32,36] professional theatre actors,[25-27] and other volunteer trainers.[38,40,41]

Having direct contact with people with mental illness

In 12.82% studies, contribution of people who had experienced mental was mentioned. These interventions were brief question-and-answer sessions,[40] in mental hospitals[28] and sharing adolescents' experience of mental disorders,[41,44] and a platform was created for direct contact with people with mental illness.[42]

Utilizing technological advancements in education

In 17.94% studies, Internet and social networks were used in interventions. The examples of using these new innovations were: Designing a website or online community,[9,18,42,46,48] conducting the Internet search for retrieving the related information,[23,47] and using cognitive behavioral therapy-based online games.[42,48]

The barriers in improving adolescents' mental health literacy interventions

Several studies introduced certain barriers such as the short intervention time,[3,10,37,40,43,49] the challenges of collaboration between the intervention providers with the school administrators,[17,37] and the lack of available and valid information sources[46] were mentioned as the barriers in reviewed interventions.

Discussion

The current systematic review identified the prerequisites, facilitators, and barriers with regard to implementing adolescents' mental health literacy interventions. The findings of the present study can contribute to designing and implementing appropriate interventions to improve adolescent mental health literacy.

In Mcluckie *et al*.'s study, the results indicated that mental health education plays an important role in promoting students' knowledge and attitudes toward mental health issues, especially when this education is integrated into the curriculum and taught by teachers.[19] In addition, improving adolescents' mental health literacy should be normalized as part of the daily activities of regular school teachers who should, in turn, promote their knowledge about adolescent mental health as part of their professional duties.[50,51] Due to a lack of knowledge about mental health, parents may blame their adolescents for their mental health problems, preventing them from professional help-seeking.[52] Parents need to be able to identify and take appropriate and timely actions to address adolescents mental health problems.[53]

Cooperation between professionals can contribute to enhancing the availability of intervention and support for students and families and increasing the knowledge and awareness among school professionals.[54] When educational teams have professionals with advanced skills, they can identify the needs and design appropriate interventions and monitor the students' academic progress.[55] Implementing comprehensive interventions and plans require regulating the appropriate mental health policy and supervising its proper enforcement.[56]

Mental health literacy offers a Western scientific concept that may conflict with traditional beliefs or with the dominant culture in low- and middle-income countries.[57] In the interactive learning, teachers are actively involved with students, which not only enabling teachers to construct teaching processes but also helps both teachers and students their knowledge and skills.[58] Participants are well satisfied with and more encouraged to become emotionally involved in the learning process.[59] Through multimedia, several senses are used simultaneously in the learning process, which can provide optimal learning for people with different learning preferences.[60] Interactive drama can stimulate the students and provoke their thoughts about the characters and events presented.[61]

Direct contact with these people might create an opportunity for adolescents to alleviate the stigma associated with mental disorders,[40] thus making it easier for them to cope successfully with their future mental health problems. Utilizing these new technologies ensures that everyone can have easy and quick access to health literacy educations.[62] Some methods such as branding and promotion were also used in a web-based intervention to introduce and attract more audience.[42]

In the reviewed articles, most of the limitations mentioned in the reviewed interventions was the short duration of the interventions, which can affect the sustainability of long-term improvements.[3,10,43] Challenges to collaboration with schools require careful planning and effective guidelines in this regard.[37]

Limitations

Most of the included studies in the review have failed to address the direct impact of the recognized facilitators, prerequisites, and barriers on the adolescents' mental health literacy. The reviewed studies reported the overall impact of the intervention; however, they did not report the direct impact of the observed factors on conducting the interventions. The reviewed articles used various study designs that made it difficult to evaluate their quality.

Suggestions for future research

Since most of the interventions were conducted to improve the adolescents' mental health literacy in developed countries, the need for conducting such short-term or long-term programs and evaluating their results in less developed and undeveloped countries is felt. Future studies can also consider investigating the effects of social, cultural, political, and economical factors on the interventions conducted to improve the adolescents' mental health literacy.

Conclusion

Comprehensive plans to improve the adolescents' mental health literacy necessitate close attention to

the essential prerequisites, facilitators, and barriers in the efficient implementation of the relevant programs and interventions. First, adopting effective laws and policies and coordinating the relevant public and private organizations are indispensable for the proper implementation of these programs or interventions. Second, the key stakeholders such as policy-makers, parents, teachers, and adolescents themselves need to recognize the importance of mental health literacy. Finally, given the strong influence of internet-based technologies on adolescents, plans to provide appropriate educational content and programs through these technologies could contribute to improving the adolescents' mental health literacy.

Conflicts of interest
There are no conflicts of interest.

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