Effectiveness of audiovisual media to improve mental health knowledge for adolescents: A systematic review

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ARTICLE INFO

Article history:
Received 21 January 2023
Accepted 1 April 2023
Published 10 June 2023

Keyword:
Audiovisual media
Video
Telehealth
Knowledge
Mental health
Adolescence

ABSTRACT

The tagline "no health without mental health" is real evidence of mental health's vital role in mental health problems. Mental health problem conditions could be prevented with a low-cost tendency by improving mental health awareness specifically improving and decreasing the stigma. This effort is useful to ensure the mental health treatment process is effective for everyone, including adolescents. The research collected and analyzed the audio-visual intervention model and the effectiveness of the model to improve the mental health knowledge of adolescence. This research applied a systematic review with the approach of PICO criteria. The researchers also used PRISMA as the review guideline. The applied databases were ProQuest, ScienceDirect, Springer, Taylor & Francis, Sage, and Google Scholar. The researchers found 747 articles. Then, the researchers analyzed the articles with PICO and PRISMA. The researchers found 9 articles based on the inclusion and exclusion criteria. Then, the researchers analyzed the articles. The analysis results showed that all models or audiovisual media intervention forms could improve the mental health knowledge of adolescence. The models of the audiovisual interventions were: Tele Mental Health/ Teletherapy/ Digital Mental Health; Boca Norte (audiovisual narrative/ digital teen series); Bibliodrama/experience of death education; Video; the face-to-face teen; Online Discussion Team; and What’s Up With Everyone/ WUWE. Conclusion the intervention results found the effectiveness of improving mental health knowledge for adolescents.

Kata kunci:
Audiovisual
Video
Telehealth
Knowledge
Mental health
Remaja

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Email: samsul.arif.psc21@mail.unmy.ac.id
DOI: 10.30604/jika.v8i2.2012

Available online at: https://aisyah.journalpress.id/index.php/jika/

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INTRODUCTION

The tagline "no health without mental health" is real evidence of mental health's vital role in mental health problems. WHO explains that mental health does not only deal with disease but is the intrinsic part of individual and collective health and well-being. A report by “World Mental Health Report” explains the importance of the 2013-2030 comprehensive mental health action plan to realize the global objective. WHO also explains that mental health problem solutions could change behavior and attitude, apply a promotion approach; protect mental health and care. Then, if the problem is deemed necessary, the process may begin with the influential-environmental change of mental health and develop community-based mental health to cover mental health universally. WHO elaborates and emphasizes the intensiveness of collaborative action to integrate mental health in primary health care in terms of prevention, promotion, and health education for every risky group as soon as possible.

Mental health is an individual condition with well-being, self-potential awareness, life-pressure management skill, productive performance, and community contribution. Some symptoms of mental problems may include behavioral and mood changes, concentration difficulties, self-harming potentials, intense feelings, and health problems (Kemenkes, 2022). The increased role acknowledgment has been vital for mental health recently to realize global objectives, including the sustainable improvement of mental health (WHO, 2022).

Data show improved mental health around the world. WHO (2022) noted an increase of 13% in mental health conditions with drug abuse cases in recent decades. Datrami, Ritchie & Roser (2021) explained the findings from Institute for Health Metrics and Evaluation that 792 million people suffered from mental health. WHO also show mental health problem causes 1 out of 5 living adolescents to suffer from disabilities. The data also show a percentage of 20% of mental health problems occur in children and adolescents. One of the mental health problems, as the primary cause of disability, is depression with suicidal risk. Suicidal action committed by individuals aged between 15 and 29 years old is the fourth-ranked cause of mortality rate. Individuals with severe mental health problems might die before the time, at least two decades earlier, based on the possible preventive physical conditions (WHO, 2022).

Carlén (2022) mentions that adolescents with risky mental health against social ex-communication, discrimination, and stigma influence their readiness to seek assistance. They may also find educational difficulty, risk-decision-making behavior difficulty, poor physical health, and human rights violations. Mental health conditions may significantly influence all human living aspects, starting from school performance, job performance, family and friend relationships, and community participation skills. Two conditions of the most common mental health problems are depression and anxiety. These problems influence the global economic situation for US$1 trillion annually.

Based on the data, preventive effort against mental health problems is important by improving mental health awareness, specifically improving the understanding and correcting the negative stigma. Thus, the mental health treatment process at every community level will be effective. This effort includes the technology implementation to cover broader targets and to save the required budget.

Massive technological support and mastery of adolescents are useful to provide education (Scherer, Siddiqi, & Tondeur, 2019; livari, Sharma, & Ventá-Olkkonen, 2020). During the COVID-19 pandemic, most lesson promotion involved distance learning with various platforms, such as audio and visual platforms (livari, Sharma, & Ventá-Olkkonen, 2020; Baker, Konigsberg, Brown, & Adkins, 2023).

Previous studies found the implementation of audiovisual could improve mental health behaviors (Javier, 2018; Toscos et al, 2019; Chao-Fernández, Gisbert-Caudeli, & Vázquez-Sánchez, 2020; Testoni, Biancalani, Ronconi, & Varani, 2021). For example, the implementation of audiovisual media, such as videos (Javier, 2018); live streaming (Toscos et al, 2019); computer-game-based therapy (Chao-Fernández, Gisbert-Caudeli, & Vázquez-Sánchez, 2020); Bibliodrama (Testoni, Biancalani, Ronconi, & Varani, 2021); and Wuwe/digital video intervention/online mental health campaign (Curran et al, 2023).

This research focused on audiovisual media identification to improve adolescents’ mental health knowledge. This research summarized the effectiveness of audiovisual media to improve adolescents’ mental health knowledge.

METHODS

This systematic review applied the approach of PICOS criteria, starting from participants, intervention, comparison, outcomes, and study design. In this research, the researchers used the PRISMA guideline, the Preferred Reporting Items for Systematic Review and Meta-Analyses, to review the articles.

Table 1 The Applied PICO Criteria

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problems/Populations</td>
<td>The mental health of adolescents</td>
</tr>
<tr>
<td>Interventions</td>
<td>Audiovisual, video, face-to-face, or tele mental health media</td>
</tr>
<tr>
<td>Comparison</td>
<td>No-comparing factors</td>
</tr>
<tr>
<td>Outcomes</td>
<td>The effectiveness of audiovisual media to improve the mental health knowledge of adolescents</td>
</tr>
</tbody>
</table>

The original data sources were from UpToDate, ScienceDirect, SpringerLink, Taylor & Francis, Sage
Publication, and Google Scholar with the search span between 2019 and 2023. The focused literature searching process was on the effectiveness of health education and the practices of administering breastfeeding. The applied keywords were audiovisual media, video, face-to-face, mental health knowledge, and adolescence. The search process objective was to identify the articles reporting on the effectiveness of audiovisual media to improve the mental health knowledge of adolescents. The applied inclusion criteria were: 1) opened-access articles, 2) qualitative, quantitative, and mix-method type articles, 3) participants aged between 10 and 19 years old; and 4) English-written articles. The exclusion criteria were: 1) non-open access articles, 2) non-systematic review, scoping review, and reviewed articles; 3) participants aged younger than 10 years old or older than 19 years old, and 4) applying non-secondary data.

RESULTS AND DISCUSSION

The researchers found 747 articles from the databases. After screening the titles, the researchers found 389 irrelevant articles, 77 duplicated articles, and 172 irrelevant articles based on the inclusion and exclusion criteria. Therefore, the researchers found 9 articles to analyze comprehensively based on Diagram 1 of the PRISMA literature search.

Table 2. The summarized findings of the audiovisual media effectiveness to improve mental health in adolescents

<table>
<thead>
<tr>
<th>NO</th>
<th>Authors/year</th>
<th>Title</th>
<th>Design/ method</th>
<th>Research site, sample and Audiovisual Media</th>
<th>Findings/results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Toscos et al (2019)</td>
<td>Teens Using Screens for Help: Impact of suicidal ideation, anxiety, and depression levels on youth preferences for telemental health resources</td>
<td>Quantitative: regression logistic model and general linear model</td>
<td>Khayelitsha, South Africa; 2789 learners; Tele Mental Health (TMH)</td>
<td>Generally, 30.58% (853/2789) and 22.91% (639/289) learners reported their anxiety and depression with moderate until severe categories within two weeks; 16.24% (414/2550) considered committing suicide within the last year. These results were consistent with the national results of South Africa. On the other hand, 16.03% (447/2789) learners had applied at least one out of four resources of tele health, TMH. They were self-subsistence, anonymous chatting, online counselor, and critical text line. The results showed the reported adolescents with depression symptoms, high stress, and suicidal tendency without family and parental talks about stress, problem, and unshared information. The suicidal actions were related to four source types of TMH. The depression symptoms were related to anonymous chatting and critical text lines. Individuals with high stress preferred consulting with...</td>
</tr>
</tbody>
</table>
online counselors to other TMH. They reported having anxiety symptoms with the tendency of not tell anyone and tend to use personal assistance sources.

2 Testoni, Biancalani, Ronconi, & Varoni, (2021) 
Let’s Start With the End: Bibliodrama in an Italian Death Education Course on Managing Fear of Death, Fantasy-Proneness, and Alexithymia With a Mixed-Method Analysis  
The applied method was mixed-method; quantitative method with a quasi-experimental design, two groups of intervention and control groups. The qualitative method applied an open-interview design.

Nine Senior High School learners of Northern, Southern, and Middle Italy; 113 learners from the intervention group and 114 learners from the control group; Bibilodrama experience of death education

The results showed that the course had positive effects because the mortality education intervention significantly decreased alexithymia and negative attitudes toward mortality. The intervention could also manage the fear and avoidance of mortality and managed their traumatic images of mortality.

Development and experimental validation of a dataset of 360--videos for facilitating school-based bullying prevention programs  
Quantitative: quasi-experiment between the 360° VR and screen  
Barcelona, Spain; 89 learners: 35 learners received the 360° VR while 54 control group learners wore regular video; The 360° video

The results supported the VR effectiveness to produce realistic emotional responses toward the intimidating actions although the results showed differences between the reported actions and the psycho-physiological actions of the video implementations with a regular screen. Indirectly, this research did not measure the knowledge but the constructed attitudes of the adolescents’ knowledge about their responses against intimations to other individuals.

An evaluation of the teen and Youth Mental Health First Aid training with a CALD focus: an uncontrolled pilot study with adolescents and adults in Australia  
Quantitative: pre and post-experiment with three-month follow-up research  
372 learners came from 10 classes of two schools and received training 308 learners received pre-training questionnaires. 220 learners received post-training responses. Then, 256 learners completed the questionnaire after a three-month follow-up; CALD (culturally linguistically diverse/ face-to-face training)

The research found significantly improved knowledge of the learners about mental health problems and first aid for mental health problems. The evidence was the pre-record until the post-training records with a p-value lower than 0.01. The results lasted until the follow-up period, p-value lower than 0.01. Current belief would facilitate humanity from mental health problems and improve the mental health problems significantly after the training, p-value lower than 0.001. These results lasted until the follow-up period, p-value lower than 0.05.

5 Hart et al (2022) 
teen Mental Health First Aid: 12-month outcomes from a cluster crossover randomized controlled trial evaluation of a universal program to help adolescents better support peers with a mental health problem  
Quantitative: the follow-up study experiment  
Victoria, Australia; From 1.942 learners who met the requirement, 1,624 learners could complete the baseline while the other 894 learners could manage the follow-up survey; face-to-face (teen Mental Health First Aid)

Mental health training was statistically significant to improve the intervention group learners’ knowledge. However, the results showed no differences between the intervention and control groups in terms of intentions and attitudes to provide first assistance for peers with mental health problems.

6 Marinucci, Grove & "its something that we all know: qualitative: Braun and Australia; 27 adolescents;

This research found eight primary themes, such as
Rozendorn (2022) | Australian youth perspectives of mental health literacy and action in schools | Clarokes, thematic analysis, snowball | Online Discussion | Group 1: educational limitation and mental health understanding at schools, 2. the efforts to assist seeking, 3. Negative mental health attitude, 4. the preferred content from mental health education, 5. the understanding of mental health, 6. school as a place to provide support, 7. suggestion for mental health education, and 8. the procedure of responsive schools in terms of adolescents' necessities. All youngsters in the research showed their concerns related to the lack of mental health education at schools. The adolescents' statements indicated the online group discussion could improve their mental health knowledge.

7 Curran et al (2023) | What’s up with everyone?: The effectiveness of a digital media mental health literacy campaign for young people | Quantitative: experimental research | UK; 19 males | 51 females; The campaign "What’s Up with Everyone?” (WUWE) digital video intervention

8 Queroue et al (2021) | an interactive video increasing french students mental health literacy: a mixed-method randomized controlled pilot study | A mixed-method research | Francis; 101 (50 intervention group participants and 51 control group participants); Interactive Video


DISCUSSION

Nine articles met the inclusion and exclusion criteria about the effectiveness of audiovisual media to improve the mental health knowledge of adolescents. The researchers found articles with audiovisual model implementation. They were telemental health (Toscos et al, 2019); Boca Norte (audiovisual narrative/ digital teen series) (Valenzuela-monreal, Delmar & Araque-Padilla, 2023); Bibliodrama/experience of death education (Testoni, Biscalani, Ronconi, & Varani, 2021); video 360° (Barreda-angles et al, 2019); the face-to-face teen (Hart et al, 2019; Sheter, 202); Youth Mental Health First Aid/ YMHFA (Sheter, 202); CALD (Guaardo et al, 2019); online group discussion (Marinucci, Grove & Rozendorn, 2022); What’s Up with Everyone/ WUWE (Curran et al, 2023); interactive video(Queroue et al, 2021); and digital mental health (Mindu et al, 2023). The results were effective in improving the mental health knowledge of adolescents. From the articles, the applied audiovisual media were:

**Tele Mental Health/Digital Mental Health**

The implementation of information technology for adolescents' knowledge improvements about mental health was tele mental health (Toscos et al, 2019); and digital mental health (Mindu et al, 2023). The names were different due to the existence of the media. For example, the usage steps of web-based or cellular-based applications to support audiosvisals. Toscos et al (2019) initially examined the mental health of adolescents to provide a series of mental health knowledge with the audiovisual presentation. Mindu
et al (2023) initially prepared a mobile-based application. However, due to the limitation and agreement with the respondents, the researchers changed the applied media to Facebook Live and WhatsApp video call groups.

Figure 2. Tele Mental Health (Tosos et al, 2019:4)

Boca Norte (Audiovisual Narrative/ Digital Teen Series)

Boca Norte is a remark for narrative audiovisual or digital teen series by Valenzuela-monreal, Delmar & Araque-Padilla (2023). This audiovisual media intervention provided SDG’s 2030 agenda with the content of adolescents’ mental health. The media had three applicable platforms, such as Instagram, Playz, and Spotify.

Bibliodrama/Experience of Death Education

Bibliodrama Testoni et al (2021) explained that the death experience education could lower alexithymia cases. Taylor, Bagby & Parker (2016) explained that alexithymia was more than being speechless to express feelings but also difficulties to manage emotions. Testoni et al. (2021) found positive effects of Bibliodrama implementation because the mortality education intervention significantly decreased alexithymia and negative attitudes toward mortality. The intervention could also manage the fear and avoidance of mortality and managed their traumatic images of mortality. The intervention also lowered the fear of death and improved the required basic skills to manage death-related feelings. Thus, adolescents could manage their emotions in the future, such as losing their beloved ones. Bibliodrama is an audiovisual media from audio and visual media combination.

Video

Audiovisual media was an effective video to improve the mental knowledge of the studied adolescents by Barreda-angles et al (2019) dan Queroue et al, (2022). Barreda et al attached a 360º video on a virtual reality device while Queroue et al used interactive video.

The 360º video, on virtual reality by Barreda et al. (2019), was based on the bullying victims’ experiences. The intervention results supported the effectiveness of realistic emotional responses toward intimidation action as the cause of adolescents’ mental health problems. Barreda et al also proved the improved related mental health knowledge in adolescents, especially mental health, was caused by bullying. On the other hand, the interactive video by Queroue et al tended to be preferred if the video was based on a web thing. This condition was observable because web-based video provided better access, in terms of time, place, and cost. Thus, adolescents could access the video.

CALD (culturally linguistically diverse face-to-face training)

CALD or face-to-face training is an audiovisual intervention based on a complex population. The intervention is also a community-based intervention to provide knowledge and first mental health assistance skill. Guarjardo et al (2019) provided intervention for Senior High School learners. The research found significantly improved knowledge of the learners about mental health problems and first aid for mental health problems. The learners could maintain their mental health during the pre-session, the training session, and the follow-up session. Their beliefs in assisting humanity with mental health improved significantly after the training. The participants could also maintain the results after the training.

This finding showed that the training could improve mental health literacy matters. Furthermore, Guarjado et al found that CALD TMHFA and YMHFA could be excellent recommendations to improve the skills and learners’ mental health from various fields with various proportions of ethnicities.

The face-to-face teen (Hart et al, 2019)

The face-to-face Teen by Hart et al. (2019) was the first assistance training for adolescents’ mental health. The research dealt with universal mental health literacy, the effort of decreasing negative stigma, an effort of seeking assistance, and suicidal case prevention program for adolescents. Mental health training was statistically significant to improve the intervention group learners’ knowledge. However, the results showed no differences.
between the intervention and control groups in terms of intentions and attitudes to provide first assistance for peers with mental health problems.

**Online Discussion Group**

Marinucci, Grove & Rozendorn (2022) applied online discussion groups. They found eight primary themes, such as 1) educational limitation and mental health understanding at schools, 2) efforts of seeking assistance from mental health problems, 3) negative attitudes among adolescents, 4) preferred content about mental health education, 5) mental health understanding, 6) school as a place to provide support, 7) suggestion for mental health education, and 8) procedures of responsive schools toward the adolescents’ mental health necessities. Marinucci, Grove & Rozendorn (2022) also found the participants concerned about the lack of mental health education at their schools. The adolescents’ statements indicated the online group discussion could improve their mental health knowledge.

**What’s Up With Everyone (WUWE)**

This audiovisual media, What’s Up With Everyone or WUWE, by Curran et al. (2023) was a digital campaign on adolescents’ mental health problems. WUWE is a digital video intervention via social media with the target adolescents aged between 17 and 21 years old. Curran et al (2023) applied an instrument, consisting of willingness, reluctance, stigma, cognition, attitude, and belief. Generally, WUWE improved mental health knowledge, belief, stigma, seeking assistance improvement, and self-confidence to help other individuals aged between 17 and 21 years old. This finding showed that digital video campaigns could improve the attitudes, willingness, and beliefs of the participants on mental health.

**CONCLUSION**

The researchers concluded audiovisual media influenced adolescents’ mental health knowledge. The realizations of the mental health media were tele mental health/digital mental health, Boca norte, bibliodrama, video, face-to-face teen, online group discussion, and WUWE found in some countries, such as Australia, France, Southern Africa, the United Kingdom, Italy, and Spain.

**Limitations**

This systematic review of research limitations dealt with a time-range search, five recent years, from 2019 to 2023; and the implementation of only open-access articles.

**Conflict of Interest Statement**

The author declares that there is no conflict with other parties related to this research.

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