REVIEW

Nursing Intervention for Preventing Cyberbullying and Reducing Its Negative Impact on Students: A Scoping Review

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Abstract: Cyberbullying Prevalence of cyberbullying has increased every year on students as the most internet users. The negative impact of cyberbullying are anxiety, depression, and risk of suicide. Nurses have role to reduce the negative impact of cyberbullying on students. The aim of the study to describe the method of nursing interventions to prevent and reduce the negative impact of cyberbullying on students. This study used Scoping Review method. Articles from CINAHL, PubMed, and ProQuest databases. The keywords used in English are cyberbullying OR cyber-victimizations, nursing intervention, and students. The inclusion criteria were full text, randomized control trial or quasi-experimental design, sample was students, and articles publication period last 10 years (2013–2022). Based on the initial research, 11 articles were found that were relevant with the research objectives from 678 studies. The range of samples is 35–2771 respondents from elementary school to college students. Most of the samples in this study are from developed countries, there are USA, Spain, and Italy. There are three methods of nursing interventions, namely online programs, school-based programs and Social Competence Programs. Nursing interventions are focused on increasing resilience to build students' awareness of cyberbullying, and increasing resilience and adaptive coping in reducing the negative effects of cyberbullying. Then, the school-based program method is the most effective method in preventing and reducing the negative effects of cyberbullying because it comprehensively involves teachers, students, nurses, and parents to collaborate in carrying out nursing interventions.

Keywords: cyberbullying, nursing intervention, students

Introduction

Cyberbullying is bullying behavior carried out online on social media, such as e-mail, chat rooms, short message service, websites, videos, images uploaded on websites or sent via cell phone.[1,2] Cyberbullying is also defined as behavior that harms others and oneself that occurs on social media either physically or verbally.[3] Cyberbullying occurs indirectly which usually involves social media which causes the perpetrator to be more flexible to cyberbullying the victim.[4] Cyberbullying is the implication of the perpetrator's lack of empathy for the victim.[5] Because it is done online, cyberbullying had negative impact on the victim in the form of psychological problems.[6,7]

The increasing user of the internet among students causes cyberbullying cases to increase every year. This has led to online cyberbullying in the form of online videos, images and words in digital form by threatening, mocking and insulting others.[8] Cyberbullying often occurs in students who are the most internet users with a rapid increase, especially on social networking sites, chat rooms, and instant messaging applications.[9,10], But there were still many students who are not wise in used social media, causing cyberbullying.[11,12]

The percentage of cyberbullying among students is quite high. Previous study showed that conducted a study on 384 students, from the data it can be seen that 11% of students have experienced cyberbullying, around 29% have been victims, and almost 50% have witnessed cyberbullying.[13] In the same year, other study conducted a study of 461 junior high school students in Canada and China found that 55.6% of boys and 54.5% of girls knew someone who had been

bullied online. In his research, also found that about 30% of the respondents had been victims of cyberbullying, and about 18% were involved in cyberbullying.[3] About 85% of respondents witnessed negative interactions through social media, and another 12% said that it happened frequently. Other study reported that 52% of respondents aged 12–19 years (n=408) stated that about 20% of cyberbullying against others mostly occurred through internet chat rooms.[14] Cyberbullying behavior has a negative impact on students.[15–17]

Cyberbullying had a negative impact on students on mental health aspects including depression, social anxiety, suicide, low self-esteem and behavioral problems that can strain relationships between family members.[1,7,18] In addition, cyberbullying could reduce student's achievement in school. Other studies have shown that bullying causes a deficit in emotional abilities, which has an impact on psychological dysfunction.[19] Cyberbullying has an impact on the well-being of victims,[20] result in depressive disorders, social anxiety, and the victim's low self-esteem.[7,21] Cyberbullying incidents that occur continuously will have a negative impact on students, the worst impact is death due to stress felt by students.

Efforts to prevent cyberbullying cases require joint attention, namely teachers, health workers, parents, the role of a counselor from health workers and the role of the community environment and from within the child himself.[13] Nurses as health workers have an important role in providing comprehensive nursing care in preventing and reducing the impact of cyberbullying. One of the efforts that can be done is to provide education by health workers and teachers regarding prevention measures and efforts, as well as efforts to overcome trauma from bullying.[22] The implementation of interventions in reducing the impact of cyberbullying is still carried out independently and does not even involve health workers.

Nurses as health workers have not been much involved to prevent and handle cyberbullying. The handling of cyberbullying was still mostly handled by schools, psychologists, and youth activists. While nursing cares to prevent and reduce the impact of cyberbullying on students as a nurse's role. Several studies have shown that efforts to reduce the impact of bullying are through empathy and mindfulness therapy.[23–25] Nurses still do not know much about the method of nursing cares that can be done to prevent and reduce the impact of cyberbullying on students.[26] Previous studies have also shown that mindfulness interventions are carried out by psychologists alone to reduce the impact of cyberbullying without involving nurses.[7,27,28]

Previous study have shown that school-based interventions can effectively reduce the incidence of bullying.[1] The previous systematic review discussed school-based interventions for children to reduce the incidence of cyberbullying.[29] This systematic review shows that school-based interventions can increase children's and parents' knowledge about cyberbullying so as to prevent cyberbullying. As for suggestions from previous study, it is necessary to review interventions to prevent and reduce the impact of cyberbullying on children. Systematic review and previous meta-analysis of interventions to reduce cyberbullying perpetration and victimization.[17] The results of this study indicate that school-based prevention programs are effective in reducing both cyberbullying and traditional bullying. As for suggestions for further research in this study, it is necessary to review the interventions carried out by health workers to reduce cyberbullying.

Nurses are health workers who have a role in providing comprehensive nursing care in preventing and reducing cyberbullying. The role of nurses in the field of community nursing for adolescents is to provide nursing care to adolescents at school and to provide nursing care related to adolescent health problems in the community. However, previous systematic review discussed interventions that were school-based and carried out by teachers.[30] So that the role of nurses in providing nursing care in the community sector to prevent and reduce the impact of cyberbullying has not been comprehensively discussed.[31] So that there is a problem gap where there is no review of nursing interventions in preventing and reducing the impact of cyberbullying.

The impact of cyberbullying behavior on students has a negative impact on mental health which will have a negative effect in the short or long term. The worst impact is causing the risk of suicide. Nursing cares is needed that carried out to prevent and reduce the impact of cyberbullying on students. This is the first scoping review who discuss about nursing intervention to prevent and reduce negative impact of cyberbullying. Therefore, the authors intend to conduct a scoping review to describe the method of nursing interventions to prevent and reduce the negative impact of cyberbullying on students.

Materials and Methods
Design
This study was designed used scoping review. Scoping review is a methodological technique to explore and discuss a topic that is currently developing.[32] This methodology had a wide conceptual range cause can discuss various research

results to achieve research objectives.[33] The framework used 6 core stages, namely identification of research questions, identification of relevant study results, study selection, data mapping, compilation of results, and reporting of study results.[34] This scoping review used the PRISMA Extension for Scoping Reviews (PRISMA-ScR) to identify various topics about nursing interventions to prevent and reduce the negative impact of cyberbullying on students.

Search Methods

Literature in this study from 3 databases, namely: CINAHL, PubMed, and ProQuest. The keywords used are: "cyberbullying OR cyber-victimization" AND "student OR students" AND "nursing intervention OR nursing care". The research questions are: what are the method of nursing intervention to prevent and reduce the negative impacts of cyberbullying on students?

Inclusion and Exclusion Criteria

This scoping review used the PRISMA Extension for Scoping Review (PRISM-ScR) to identify various topics who discuss about nursing cares to reduce the negative impacts of cyberbullying on students (Figure 1). The way to measure the criteria in this study is using PICO, namely:
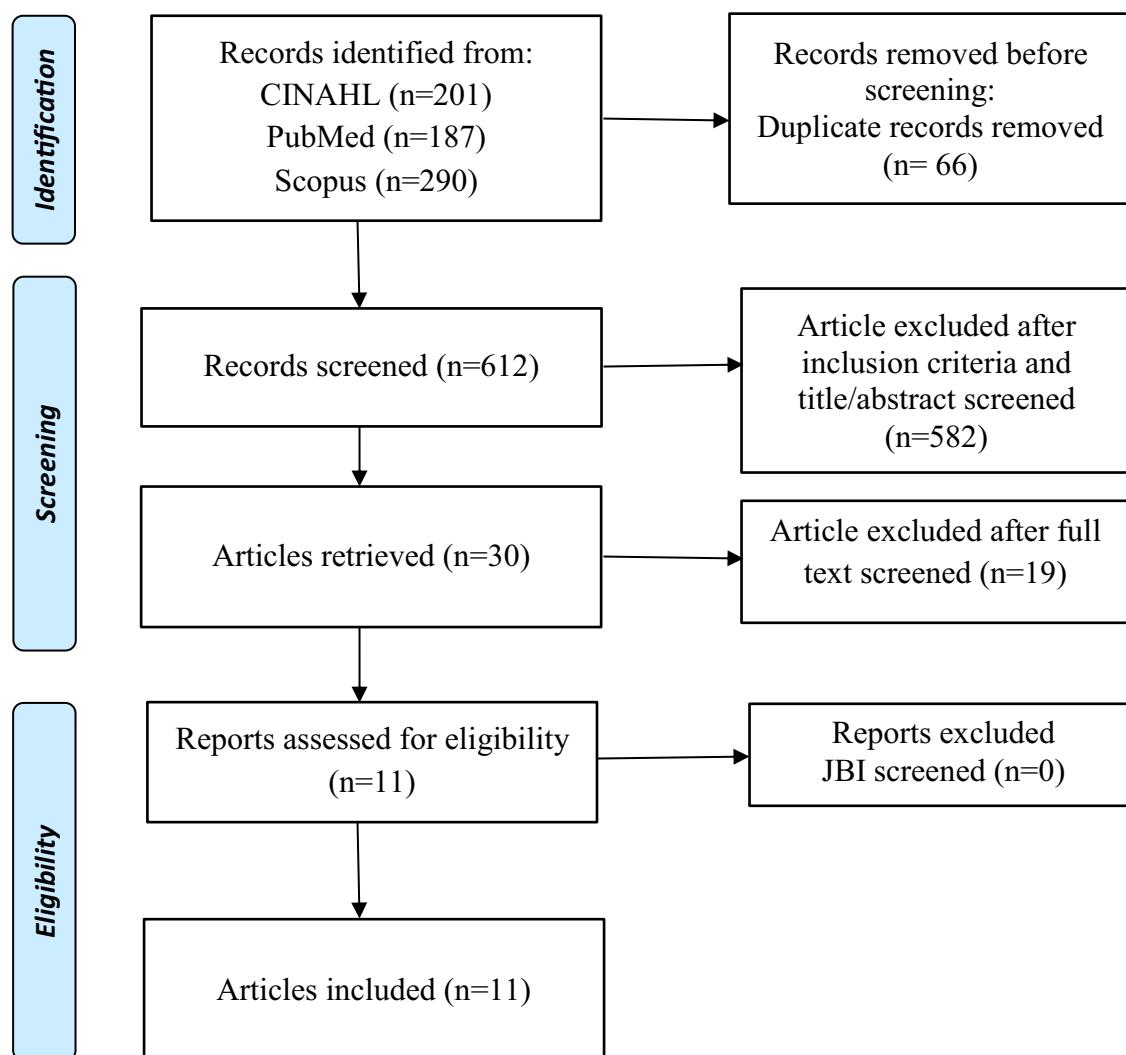
Patient: students

Figure 1 PRISMA flow diagram.[32]
Notes: Adapted from Tricco AC, Lillie E, Zarin W, et al. PRISMA extension for scoping reviews (PRISMA-ScR): checklist and explanation. Ann Intern Med. 2018;169 (7):467–473. doi:10.7326/M18-0850.[32]

Interventions: nursing interventions

Comparison: no comparison

Outcome: incidence of cyberbullying, negative impact of cyberbullying.

Articles were selected based on inclusion and exclusion criteria. The inclusion criteria of this study were that the patient is students, randomized control trial and quasi experimental design, there was nursing care, the article was original research, used English, full text, and time setting of the last 10 years (2013–2022). The exclusion criteria in this study were that the research was not conducted on students and not nursing cares.

Data Extraction

All authors read and analyzed the articles have been collected from three databases. Then the author made a resume from the results of analysis articles. The resume were extracted used a table manually including authors, year, country, study design, population and sample, procedures, interventions, and results of the study. Extraction tables used to make it easier for authors and readers to understand the result of this study.

Quality Appraisal

Quality appraisal used The Joanna Briggs Institute (JBI) to assess and analyze the methodological quality of articles. The JBI method used an assessment by using a statement score including yes, no, unclear, and not applicable. The yes score is given a value of 1, while the other scores are given a value of 0. The results of the assessment of each article are added up to determine the quality of the journal to be used. The author sets the article with good article standards if above 75% based on criteria and topic relevance.

Data Analysis

As for data collection and data analysis using prism flowcharts which were carried out by all authors in the process of selecting and collecting studies: (1) identifying duplications of studies; (2) filtering the titles and abstracts of the studies obtained; and (3) ensure studies have full text. The articles collected were then read in full and analyzed by all authors. Data analysis used descriptive approach. Prior to analysis, the authors double-checked the selected articles based on inclusion and exclusion criteria. After being analyzed, the nursing treatments obtained from the review were classified based on similar interventions and then described in the results of this study.

Results

The number of articles obtained from the database is 678 articles. After duplicating the collected articles, 612 articles were obtained. Furthermore, after elimination based on the inclusion criteria, there were 581 articles left. Then after checking the title and abstract, 11 articles were found. Articles were analyzed using the JBI Critical Appraisal Tool assessment method with good article standards above 75% based on criteria and topic relevance (Table 1).

The results of the analysis of the article are presented in tabular form as follows (Table 2):

Based on the results of this study, 2 articles came from Spain, 2 articles came from the USA, 2 articles came from Italy, 1 article came from Germany, 1 article came from Austria, 1 article came from Australia, 1 article came from Greece, 1 article came from the Netherlands. This study shows that the articles come from developed countries. And the range of samples is 35–2771 respondents from elementary school to college students.

There are 11 articles that discussed nursing care delivery to prevent and reduce impact of cyberbullying to students. We classified the method be three method of nursing cares, there are school-based program, online program, and social competence program. The following are nursing cares to reduce the negative impact of cyberbullying on students:

Online Program

Nursing cares carried out online to reduce the negative impact of cyberbullying consist of the Cyber-program 2.0, the No-trap program, and Con-Red cyberbullying intervention program, and the online anti-bullying program. The Cyber-program 2.0 intervention consists of 19 sessions conducted for one hour in each session.[35] The activities carried out are identifying and conceptualizing cyberbullying, promoting the impact of cyberbullying, developing coping strategies to prevent and

Table 1 JBI Critical Appraisal Tool

Author, Pubslished Year	JBI Critical Appraisal Tool	Study Design
[35]	88,9% (8/9)	Quasi experimental
[44]	92,3% (12/13)	RCT
[37]	77,8% (7/9)	Quasi experimental
[16]	100% (9/9)	Quasi experimental
[42]	92,3% (12/13)	RCT
[45]	84,6% (11/13)	RCT
[41]	84,6% (11/13)	RCT
[43]	92,3% (12/13)	RCT
[39]	76,9% (10/13)	RCT
[25]	76,9% (10/13)	RCT
[40]	92,3% (12/13)	RCT

Table 2 Extraction Data

No	Author & Year	Outcome	Country	Design	Sample	Intervention	Result
1.	[35]	Effects cyberprogram on bullying, cyberbullying, and empathy	Spain	Quasi experimental	176 students	Cyberprogram 2.0	The intervention can reduce and prevent bullying, cyberbullying, and increase empathy.
2.	[44]	Effects classroom-based cyberbullying on preventive students	Germany	RCT	722 students	Classroom-based cyberbullying	Effective in reducing cyberbullying and promoting empathy.
3.	[37]	Effects third Edition of the program in accordance	Italy	Quasi experimental	628 students	Notrap Program! With Information and Communication Technologies (icts)	Effective in reducing the incidence of cyberbullying in students.
4.	[16]	Evaluates Whole-School Change Intervention on cyberbullying and supportive environment	USA	Quasi experimental	2771 students	Whole-School Change Intervention	Effective in reducing the incidence of cyberbullying and establishing a supportive environment.
5.	[42]	Improving awareness on cyberbullying and increasing proactive coping.	Italy	RCT	898 students	RPC Teacher-Based Program	Increase in coping strategies in reducing the incidence of bullying in schools.
6.	[45]	Strategies on foster parent and foster youth engagement in treatment to reduce impact of cyberbullying	USA	RCT	47 students	Trauma-focused Cognitive Behavioral Therapy (TF-CBT)	Decrease in the incidence of cyberbullying and an increase in student coping.

(*Continued*)

Table 2 (Continued).

No	Author & Year	Outcome	Country	Design	Sample	Intervention	Result
7.	[41]	Prevents cyberbullying and cyber-victimization	Austria	RCT	2042 students	Visc Social Competence Program	Effective in preventing and reducing the incidence of cyberbullying and cyber-victimization
8.	[43]	Fostering positive behavior in students to reduce impact of cyberbullying	Australia	RCT	35 students	Cyber Friendly Schools Program	Effective in reducing the incidence of cyberbullying
9.	[39]	Results from an evaluation of the conred cyberbullying	Spain	RCT	875 students	Conred cyberbullying intervention program	Decrease in the incidence of cyberbullying
10.	[25]	Moral disengagement, empathy and social cognitive predictors of cyberbullying	Greece	RCT	355 students	School-based preventive intervention	Intervention can prevent and reduce the incidence of cyberbullying and increase empathy.
11.	[40]	Increase children's intention to intervene in cyberbullying incidents	Netherlands	RCT	298 students	Online anti-cyberbullying intervention	Reduce the incidence of cyberbullying and violence in schools.

reducing cyberbullying behavior, and developing empathy. A decrease in the number of bullying and cyberbullying behaviors suffered and/or carried out (level of victimization, acts, aggressive victimization); and (b) increased capacity for empathy.[36] The Cyber-program 2.0 effective to prevent and reduce the negative impact of cyberbullying.

No-trap Intervention! Was conducted online and offline. Interventions are carried out by psychologists to educate and equalize perceptions regarding the program to be run. Furthermore, peer mentoring is carried out online and offline.[37,38] While offline meetings are held to encourage a more cooperative approach in conducting activities with peer mentoring. The results of the intervention showed that there was a decrease in the incidence of cyberbullying in the experimental group.

The Con-Red Program is carried out through three elements, namely developing a learning curriculum in reducing bullying, collecting information and using the internet, and training and developing strategies in preventing cyberbullying.[39] The program was carried out for 3 months in eight training sessions discussing the topic of the internet and social networks, the advantages of using the internet, the risks and negative impacts of the internet, and advice related to internet use. At the end of the session, a reflection session was held to determine the effectiveness of the program. The Con-Red program has proven to be effective in preventing bullying and increasing student empathy.

The next intervention is an online e-learning module that aims to make teenagers read information about cyberbullying, complete assignments, answer questions, and watch educational videos about bullying.[40] The intervention was carried out for 1 month and was evaluated in terms of cyberbullying behavior at school. This intervention proved to be effective in reducing bullying behavior in adolescents at school.

School-Based Program

The whole school change intervention training was conducted for two years to learn how to use restorative practices and participate in interactive exercises that focus on increasing empathy and reducing bullying.[16] Each participant is divided into groups of 8–12 members, guided by the International Institute of Restorative Practices facilitator, discussing the implementation program plan, and solving problems according to what is happening in schools related to cyberbullying.[41]

The RPC teacher-based program intervention was carried out for 12 weeks consisting of interventions per group and per individual.[42] Counselor-guided interventions for psychoeducation and coping strategies. Each participant was invited to discuss improving support interventions, implementing strategies in their own lives, behavior reducement, creating drama related to cyberbullying, and improving social and cognitive coping strategies after the intervention. The RPC intervention proved to be effective in reducing and preventing the incidence of bullying in schools.

The cyber friendly school program intervention is an activity carried out to review policies implemented in schools, increase student awareness of students' rights and responsibilities in the use of social media, and provide cyberbullying prevention training to students and parents.[43] The program is carried out for 6 months and is evaluated in stages related to the progress of activities. Cyberbullying intervention can reduce cyber-victimization.

Another intervention is an online-based preventive program which is carried out for 7 weeks with the main focus being health education.[25] Every week posters are posted and health promotions are carried out. The posters provide information regarding cyberbullying behavior and appropriate solutions or actions. Posters were also distributed over the internet including information about the negative effects of cyberbullying, proper use of the internet and social media, and positive behaviors in preventing cyberbullying. Furthermore, an interactive discussion was held regarding the de-normalization of cyberbullying by strengthening negative attitudes and norms towards cyberbullying and the need for reporting cyberbullying cases. This intervention is proven to reduce the incidence of bullying and there is a module in reducing bullying in adolescents.

Social Competence Program

Interventions to prevent and reduce the impact of cyberbullying are Social Competence Programs. Based on the results of the study, there are 3 method, namely Classroom-based cyberbullying, trauma focused cognitive behavioral therapy, and VI-SC social programs. The SEM intervention was carried out by discussing between groups about cyberbullying.[44] This intervention develops group activity therapy to increase empathy and promote anti-bullying. The intervention results show that SEM is effective in reducing cyberbullying and promoting affective empathy.

The trauma focused cognitive behavioral therapy intervention consists of four stages for 1–2 hours, namely digital literacy training for brainstorming, awareness raising and education about cyberbullying, empathy training, and efforts to overcome problems.[45] This strategy has proven to be effective in reducing the incidence and preventing bullying in adolescents.

The Vi-SC social interventions are provided to teachers and students in schools.[41] Teachers will be trained to recognize cases of cyberbullying, handle cases of acute bullying, and implement cyberbullying prevention measures in the classroom. Students are invited to discuss each incident and strategies to reduce cyberbullying behavior. The Vi-SC program was effective in preventing cyberbullying and cyber-victimization and the effect was sustained after 6 months.

Discussion

This study is the first scoping review that discuss about nursing interventions to prevent and reduce the negative impact of cyberbullying on students. This scoping review showed that nursing interventions have the potential to prevent and reduce the negative impact of cyberbullying on students. Nursing care can increase student empathy, involving schools and families in nursing care delivery, and group therapy. Cyberbullying on social media is becoming more common among students. The causes of cyberbullying are differences in race, ethnicity, and hatred between teenagers. Health workers including nurses have a role to prevent and reduce the impact of cyberbullying. Nurses can provide comprehensive nursing care delivery in order to reach comprehensively students, schools, and families.

Respondents from the articles reviewed were mostly adolescents. Adolescents experience development on the emotional and social aspects. They will start to find his identity, and sometimes teenagers will rebel if there is something different between teenagers or something that prohibits him from doing something.[46] Adolescence is a period of transition from children to adults that occurs at the age of 10–19 years. Previous study showed that 50% of teenagers in Indonesia experience cyberbullying.[47] In addition, 70% of the 10,000 teenagers in the United States have experienced cyberbullying on social media.[48] This is in line with the number of internet users who are teenagers.[49] Data showed that 50% of teenagers experience hate comments through the social media they use.[50]

This study shows that all articles come from developed countries. Although incidents of cyberbullying can occur in developed countries and developing countries. Rapid technological developments in developed countries have also led to cyberbullying through social media. This is in line with previous studies which show that 50% of 10,000 teenagers in the USA experience cyberbullying.[51] Other study also state that internet users in developed countries are different from other studies which state that cyberbullying occurs in developed and developing countries.[52] The survey results show that 40% of students in Indonesia experience cyberbullying.[53] So efforts to reduce the impact of cyberbullying are needed on students in developed and developing countries.

Nursing cares for students who are exposed to cyberbullying need to pay attention to the development of students. The interventions need to be adjusted to the age of teenagers so that there are no stages of development that are hampered.[54] In addition, students are in the stage of finding their identity so, in the intervention process, it is necessary to provide space so that students can still freely express what they feel.[55] This is supported by previous research which states that interventions to reduce cyberbullying against students need to pay attention to youth's freedom of expression.[56]

Nursing cares to prevent and reduce the impact of cyberbullying on students can be carried out in a span of 7 weeks – 6 months. This is consistent with previous research which showed that nursing cares involving families and schools carried out for 2 months were effective in reducing the incidence of bullying in students at school.[57] Another study also showed that the effective time of conducting health education in reducing the incidence of cyberbullying in schools was 4 weeks.[58]

The role of nurses as educators to increase students' and parents' knowledge about cyberbullying. Knowledge related to cyberbullying actions carried out by students. Previous studies have shown that students with high knowledge about cyberbullying are associated with a lower incidence of cyberbullying among students at school.[44] In addition, nurses also have a role as advocates in handling cyberbullying incidents in students. Students who experience cyberbullying need assistance in dealing with the negative effects of cyberbullying. Nurses as counselors and therapists can also provide comprehensive nursing care by providing relaxation therapy, discussing solutions to solve problems, and forming peer-groups in reducing the negative effects of cyberbullying. Relaxation therapy guided by a nurse can reduce anxiety symptoms experienced by cyberbullying victims.[59] Nurses who guide peer-support with the topic of solving problems due to cyberbullying can relieve symptoms of anxiety and depression in victims of cyberbullying.

Online-based nursing cares can be carried out for 3 months by giving directions to students to be wise in using the internet and social media. This is in line with previous research, namely students must be directed to use social media wisely in order to prevent cyberbullying.[54] The school-based program intervention is carried out by nurses to provide a comprehensive intervention involving the school. This is quite effective in reducing the incidence and reducing the impact of cyberbullying. However, other studies have shown that school-based interventions only reduce the incidence of cyberbullying in a small way because parents are less involved in the intervention process.[58] Then the activity is carried out with meditation as an effort to make peace with the situation.[49,60,61] Another type of nursing care that can be done is a Social Competence Program where this activity is carried out to increase empathy for others, so that students can be more aware of the conditions of others. Online meetings are held to provide support and raise awareness.[48,62] In line with the results of this study, previous research shows that increasing empathy can prevent and reduce the impact of cyberbullying on students at school.[57]

Nursing cares should be carried out on students, students' families, and the school. Family and school become an important part in reducing the impact of bullying because students interact a lot with these two environments. In addition, families can also be a support system for students to rise from the trauma of cyberbullying.[52] Teachers as educators in schools can provide education and prevention of cyberbullying while teaching. So that all parties collaborate in preventing and reducing the impact of cyberbullying.[63] School-based program has proven to be effective in reducing the incidence of bullying in schools.[52,58,64,65]

This scoping review indicated that the intervention is carried out by improving the social life of students with cyberbullying. These social activities will be able to increase the self-esteem of victims of cyberbullying.[47] This is in line with previous research which states that the impact of cyberbullying can be prevented by increasing the self-esteem of the students themselves so that their self-confidence is higher and calmer in the face of bullying.[66] This is because bullies are usually very happy if their victims are provoked by emotion/angry.

Nursing interventions carried out online have the potential to reduce the incidence of cyberbullying in students. Flexible and efficient time has a positive impact on the implementation of nursing interventions. Students get interventions with online discussions and viewing videos containing material about cyberbullying. Previous study have shown that online nursing interventions can increase students' and parents' knowledge about cyberbullying.[67] Parents also get information about parenting so they can supervise their child's internet use.[68] Online nursing interventions can significantly increase students' and parents' awareness of cyberbullying. However, other study showed that online nursing interventions are not significant in reducing the negative impact of cyberbullying.[9] This is due to online interventions experiencing signal interference and a lack of focus in implementing nursing interventions.

Nurses, teachers, and parents collaborate to prevent and reduce the negative impact of cyberbullying on students. Teachers and parents are individuals who do a lot of activities with students. Interventions involving nurses, teachers, and parents are school-based programs. The results of the scoping review regarding school-based programs have proven to be effective in reducing the negative impact of bullying on students.[69] Nurses and teachers become counselors in this program to discuss solutions to cyberbullying problems experienced by students. Nurses can also facilitate activities and peer-support to become facilitators in school-based program activities. Parents in school-based programs have an important role at home to provide supervision and therapy assistance carried out by students at home. Previous studies have also shown that school-based programs involving health workers, teachers and parents are effective in increasing awareness among students and teachers,[25] increasing the role of parents in child supervision and therapy assistance,[70] reducing the negative impact of cyberbullying,[28] reducing the negative impact of cyberbullying on students, such as low self-esteem, social isolation, anxiety, and depression,[71] and can create a supportive environment at school in preventing cyberbullying.[72]

Increasing skills in students is important to prevent and reduce the negative effects of cyberbullying. The skills needed by students are resilience, problem solving, and adaptive coping. Training is provided by nurses so that students can overcome the negative effects of cyberbullying and can help friends who experience cyberbullying. Previous study has shown that resilience can improve students' ability to recover from the traumatic effects of cyberbullying.[73] This skill training focuses on individuals so it takes a long time. Training conducted during 4 sessions was not significant in students' adaptive coping. Other study also show that skills training can improve students' ability to solve problems independently, but students remain focused on emotions in dealing with stressors.[74] So that the implementation of skill improvement interventions requires a long time and intense supervision from nurses to evaluate the reduction in the impact of cyberbullying experienced by students.[75]

Most of nursing cares in this study were carried out in developed countries. Each intervention that will be carried out requires a cultural approach in each place.[51] This is in line with previous research which states that intervention against cyberbullying victims requires a cultural and developmental approach from the place.[76] Because the environment affects the intervention process given to students in preventing and reducing cyberbullying behavior.[77] So that nursing cares to reduce the impact of cyberbullying must consider the characteristics of students and the culture in their environment.

Nursing cares to reduce the negative impact of cyberbullying require the collaboration of various parties. This is because cyberbullying does not only involve teenagers, but also involves parents and the school.[78] So it is necessary to involve various related parties to understand and realize this problem as a serious problem.[79] Nursing cares that do not involve parents and schools cause bullying behavior to decrease only momentarily.[80] Previous studies have shown that the unique characteristics of cyberbullying that have the potential to reach a broad target or bystander and its anonymous nature make the solution more complex than traditional bullying.[63,81] The use of social media also requires parental supervision so that students are wise in using it at home. So that every nursing care must be done collaboratively to get maximum results.

This study shows that the school-based program method is an intervention that can effectively prevent and reduce the negative impact of cyberbullying on students. This method is carried out in collaboration between teachers, nurses, students, and parents to prevent and reduce the negative effects of cyberbullying. Each element plays an important role and focuses on solving problems resulting from cyberbullying. So that this method reduces distraction in the process of providing interventions and increases supervision and assistance to students.

Limitations

The limitation of this research is that the articles reviewed are limited to the last 10 years, it aims to get the latest method of cyberbullying. This causes the method of cyberbullying on students not to be discussed comprehensively. This scoping

review also focuses on intervention in preventing and reducing cyberbullying to students, so that the discussion becomes less comprehensive because it does not discuss other factors in preventing and reducing cyberbullying to students.

Conclusion

Based on the study results, 11 articles show that nursing interventions can prevent and reduce the impact of cyberbullying on students. There are three methods of nursing care delivery that can be done to prevent and reduce the impact of cyberbullying on students, namely school-based programs, online programs and Social Competence Programs. Nursing interventions are provided in a comprehensive manner to prevent and reduce the impact of cyberbullying by paying attention to all aspects that support the success of the intervention such as the physical and psychological aspects of students, family and teacher involvement, as well as the culture and spirituality embraced by students and families.

Each intervention proved effective in preventing and reducing the impact of cyberbullying on students. However, this study highlights that the school-based program method is the most effective intervention compared to the other two interventions. Environmental involvement in the intervention process is an important part of increasing awareness and reducing the negative impacts of cyberbullying. Collaboration is the key to optimizing the goals of nursing interventions. Although each method of nursing intervention can be elaborated in order to obtain effective interventions to prevent and reduce the impact of cyberbullying on students.

The implication of this study is that there is a basis for nurses in providing nursing care to reduce the negative impact of cyberbullying based on the method of nursing care found in this study Nurses can also be pioneers in carrying out school-based programs to collaborate with teachers, parents and students in carrying out interventions to prevent and reduce the negative impact of cyberbullying on students in schools. In addition, this study also has implications for being the basis for health facilities in making policies related to interventions based on the results of the study. The recommendation for further research is the need for systematic-review and meta-analysis with more sources from various databases to determine the effectiveness of school-based programs in reducing the negative impact of cyberbullying on students.

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Disclosure

The authors report no conflicts of interest in this work.

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