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Mitigating the effects of cyberbullying crime: A multi-faceted solution across disciplines

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Abstract

The issue of cyberbullying is a social concern that has arisen due to the prevalent use of computer technology today. The objective of the present paper is to reveal a multi-faceted solution to cyberbullying across disciplines to mitigate the effects of this social problem. The purpose of this present study is to explore how researchers fight against cyberbullying across disciplines to create a systematic approach based on the primary health care approach based on the World Health Organization's standard operating procedure, which consists of five types of primary care. This study is designed as a systematic literature review using Publish or Perish to automatically search through multiple databases to present the results of the keyword-based search and NVivo 12 to help understand the context. The study also uses conventional content analysis to categorize the areas of discipline and analyze the types of solutions offered in the collected 427 research articles on cyberbullying. Results have revealed that the largest major area is psychology, followed by IT media, education, and linguistics. The solutions recommended in the psychology area "plays" with a rehabilitative type of solution for cyberbullying; IT media solutions are largely the preventive type; the education area dominantly promotes "cyberkindness" to combat cyberbullying, and the linguistics area gives solutions that are curative for those involved in cyberbullying acts. Therefore, this research offers "beyond pre-venting" and might be the first study to recommend that WHO primary care can be used as systematic (four) steps to fight against cyberbullying.

Keywords: Cyberbullying, Crime mitigation, Across discipline, Conventional content analysis, Solution, Systematic way, Primary care.

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1. Introduction

Technology in the education field helps students to discover and learn new things which will help them to accelerate in the field of their choice. With the advent of technology and the rise of social media, the lives of students around the globe

have become much easier. However, along with the positive aspects of exploring new things and fostering relationships, this wave of un-intercepted nowadays communication has also posed a major threat to the personal lives and security of the people. Cyberbullying among students is an example of Hamuddin, et al. [1].

The present digital era should make any educational institutions aware of Cyberbullying. It may not be a disease as it is an online social activity, but it is a worldwide phenomenon that can have long-term damaging effects on students' emotions and health. Therefore, "far from being limited to those individual learners being cyberbullied, the effects of this phenomenon extend to the learner collective, the school climate, and also the entire school system, management, and education, thus requiring an urgent response" [2].

Various scholars with different academic backgrounds studied this harmful use of information and communication technology (ICT), offering their definitions and even terms of the phenomenon. Some compared the environment of the bullying and so used the term "offline bullying" versus "online bullying." Some considered the evolution of the form of bullying and so used the term "traditional/conventional bullying" versus "cyberbullying." The latter term is the more frequently used, though the usage may vary as published works might use a dash between the two words, "cyber-bullying" or delete space between both, "cyberbullying." The lack of unanimous agreement on the terminology and definition of the phenomenon has been considered to limit scholars' ability to study it Englander, et al. [3] but this situation is also what allows researchers to this date to continue to probe the scope of this phenomenon. In 2020, Hamuddin, et al. [4] conducted a library study of reputable journals and proceeding articles on the phenomenon and collected many of the different terms used to describe bullying in cyberspace. From a total of 125 research papers, the study found as many as 94 papers using the term "cyberbullying", while the second most frequently used term "cyber-bullying" is used by only 11 papers, followed by "cyber bullying" found in 8 papers. The staggering majority of scholars prefer the use of "cyberbullying" to the other 32 terms the study discovered. Therefore, "cyberbullying" is the term that this paper uses.

Unlike bullying in the physical space where fists may make contact with bodies or fingers may slash and scratch skin, cyberbullying uses relationships and words [5-7] as weapons. Break-ups from friendly and romantic relationships, blatant and silent envy, and intolerance of another person are some of the most common emergence points of cyberbullying incidents [8]. Victims of cyberbullying incidents would often feel negative effects, which would sometimes push them to react to the cyberbullying by retaliating, and thus the cyberbullying continues. The "facelessness" of cyberbullying was even found to make cyber victims feel that they have equal power to retaliate against cyberbullies by cyberbullying them in return [9]. People from any nation could start cyberbullying and the toxicity of online interaction could persist for a long time. Moreover, toxicity affects not just the victim but also the bully. Anxiety and depression would invade cyber victims' minds, while the antisocial behavior of bullies would worsen into personality disorders [10, 11].

Cyberbullying is dangerous to be left alone as "some Internet thing" as people's mental health and human lives are vulnerable to it. Cyberbullying has unfortunately been a norm of online interactive communication nearly since the first social media entered digital technology in 1997. Fortunately, over the years cyberbullying has been a prevalent topic for scholars to study and solve. Different disciplines have taken up the task of fighting against cyberbullying. Commonly, studies would identify the causes of cyberbullying and then recommend strategies on how to stop it. Some studies would explore their designed method of dealing with cyberbullying. Mostly, scholars offer their solutions to cyberbullying, and some studies would review the solutions that have been offered by previous studies.

The problem lies in the fact that these solutions are often "stand-alone" recommendations. One study has asked school teachers and parents to be cautious of cyberbullying effects on their children. Another study has recommended social media users respond positively to cyberbullying or support cyber victims. Different kinds of solutions are "on the table" because scholars with different disciplines are invested in studying cyberbullying. To truly stop cyberbullying which has been proven over and over that it can severely negatively affect human lives, it is crucial to design a solid, systematic way to fight the persistent and prevalent nature of cyberbullying. In this sense, cyberbullying can be considered an "endemic" issue, since it is prevalent and constant in a nation and population. Cyberbullying can also be considered an "epidemic" issue considering it attacks many people simultaneously and may spread to multiple communities. In fact, cyberbullying has already spread around the globe, so it can also be considered a "pandemic" problem.

Therefore, this study has referred to an established, standard operating procedure (SOP) for endemic, epidemic, and pandemic problems proposed by the World Health Organization (WHO) known as the "primary health care approach" in 1978 as "a philosophy of health care and approach to providing health services" that are universally applicable for nations around the world to adopt and modify in dealing with the endemic, epidemic, and pandemic health issues. Cyberbullying is unique in that it can be considered as all three types of issues. Similar to how WHO has produced very encouraging results in dealing with Ebola, cholera, and measles, there is a possibility that the primary health care approach can string together how different areas of discipline try to solve cyberbullying to become an effective approach to deal with cyberbullying.

2. Materials and Methods

Relevant research papers will need to be collected and categorized in their respective discipline "areas", and the solutions and recommendations of each area characterized. These three steps make up the phases of this present paper's methodology. The whole process is illustrated in Figure 1.

Figure 1.
Methodology of the Research.

The purpose of this present study is to explore how researchers fight against cyberbullying across disciplines to create a systematic approach based on the primary health care approach of the WHO. The approach is focused on "preventing illness and promoting health," and it consists of five types of care, namely promotive, preventive, curative, rehabilitative, and palliative. In line with the conventional content analysis theory of Hsieh and Shannon [12] which is used to analyze the type of solutions offered by the studies of cyberbullying, a standard operational procedure for cyberbullying may be realized.

This study is designed as a systematic literature review using two different types of research tools. The first tool is Publish or Perish, to automatically search through multiple databases to present the results of the keyword-based searches. The strength of this software is that it can provide the results of hundreds of citations, thus this study used Publish or Perish to collect as many studies on cyberbullying that were published from 1999 to 2021 using the keywords 'cyberbullying', 'cyber-bullying', and 'cyber bullying', and gradually included other terms that were found such as 'online bullying', 'cyber aggression', etc. The raw data collection amounted to 1,267 studies.

Table 1.
Inclusion and exclusion criteria of the systematic literature review.

Inclusion Criteria	Exclusion Criteria
Studies published from 1999 to 2021	Non-original studies, i.e., editorials, commentaries, lecture notes, spotlights, erratum, research notes, corrections, short communications, and rapid communications
Studies published in the English language (due to lack of translation capability)	Studies without available full-text
Studies that focus on cyberbullying (or use its other terminologies)	Studies reported not in the English language

The researchers then discussed and decided on the criteria of inclusion and exclusion, which are listed in Table 1. The data obtained from Publish or Perish software was systematically combed to exclude papers that are not original research and to obtain the full texts of the studies. The process of elimination is depicted in Figure 2.

The final data collection is 427 studies on cyberbullying that are published from 1999 to 2021 (spans twenty-two years). To analyze the large volume of papers, this study used the second research tool known as NVivo. The researcher used the word search features of the NVivo 12 qualitative data analysis (QDA) computer software package to easily search the names of cyberbullying acts contained within the full texts. Moreover, this software gives the researchers the ability to automatically search for specific words and phrases through hundreds of papers, whether they are exact or synonyms.

To analyze the data collection of papers, the researchers used Hsieh and Shannon [12] conventional content analysis method. Hsieh and Shannon [12] pioneered the conventional approach for the content analysis method to be an open method for understanding thousands of data because this approach allows researchers to create categories directly and inductively from the raw data. Using NVivo 12, the study coded the identified terms into nodes that contain all the references to a particular type. These references were further analyzed to categorize them into their respective discipline "areas", and the solutions and recommendations of each area were characterized. These steps make up the phases of this present paper's methodology to study A multi-faceted solution across disciplines that considers all of the disjointed descriptions from previous researchers to establish a consistent database on how individuals fight against cyberbullying across disciplines to mitigate the effects of cyberbullying.

3. Results and Discussion

This study searched through three databases with Publish or Perish using the keywords 'cyberbullying', 'cyber-bullying', 'cyber bullying', 'cyber victim', and 'cyberaggression'. Conventional content analysis categorized each paper into the area of discipline they belong in. The current database could be divided into a total of nine areas, with the numbers of papers displayed in Table 2 and the percentages displayed in Figure 3.

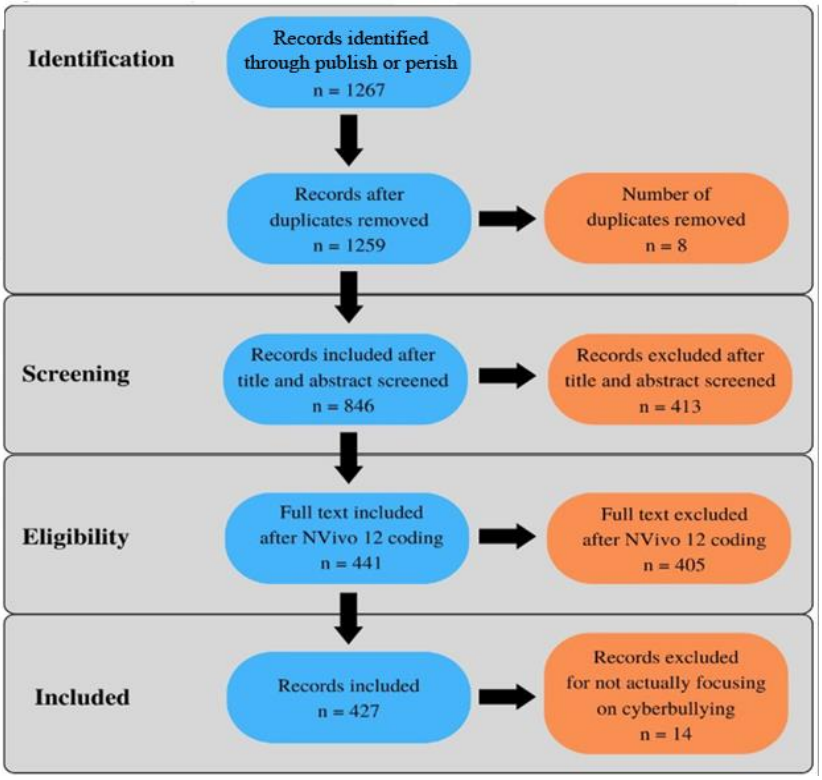

Figure 2.
Study selection process.

Table 2.
Number of papers in every area of cyberbullying literature

Areas	Selected Papers	%
Psychology	142	33
IT Media	92	22
Education	67	16
Linguistics	42	10
Sociology	22	5
Religion	22	5
Ideology	17	4
Law	17	4
Economy	6	1
Total	427	100%

The database for this present study consists of research papers that studied the problem of cyberbullying with a 'specific lens'. The most popular perspective used in the study of cyberbullying is psychology, with as many 142 papers (33%) found from a total of 427 papers. The second most popular is IT media with 92 papers (22%), followed by 67 papers (16%) looking at cyberbullying from an educational perspective and 42 papers (10%) on cyberbullying studied from a linguistics perspective. The other five categories, namely sociology (22 papers = 5%), religion (22 papers = 5%), ideology (17 papers = 4%), law (17 papers = 4%), and economy 6 papers = 1%), contributed less than two digits of publication. Therefore, this study groups the latter five areas as "minor areas" and focus on the first four areas as the "major areas" which contain solutions that have been developed over the years by many scholars, unlike the recommendations that may be too sparsely followed or considered in the papers from minor areas.

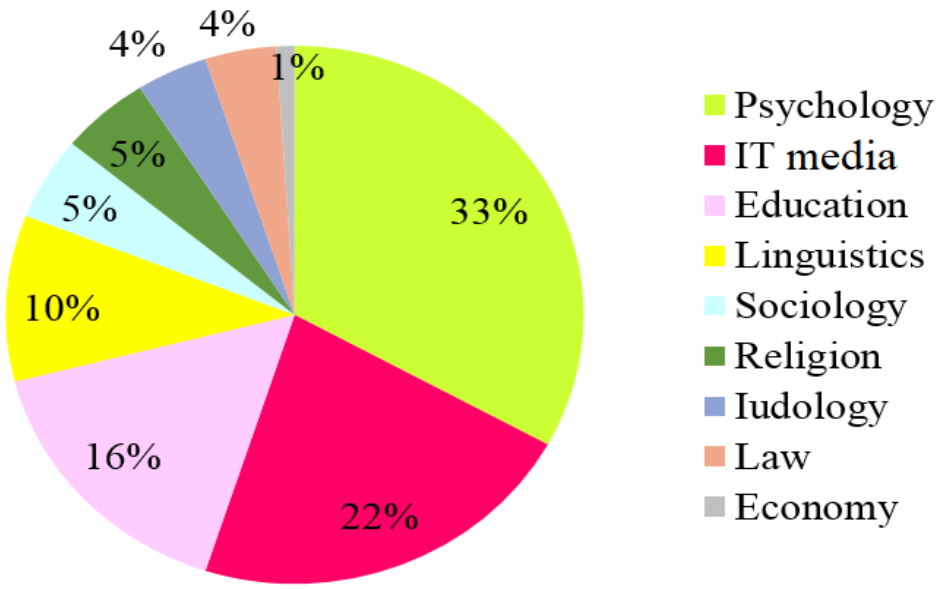

Figure 3.
Percentages of areas of disciplines studying cyberbullying.

Using the theory of conventional content analysis developed by Hsieh and Shannon [12], this study categorized 153 research papers on cyberbullying into four major areas (i.e., psychology, IT media, education, and linguistics), and categorized the solutions recommended according to the primary health care approach which is the WHO's standard operating procedure to address the health needs and preferences of individuals, families, and communities for the promotion of health and prevention of illness. Committed to social justice, primary health care ensures the whole of society receives comprehensive care, which encompasses promotive, preventive, curative, rehabilitative, and palliative types of care. In this section, this present study discusses the solutions found in each major area to determine what type of primary health care solution they may "play" with.

3.1. Solutions from Psychology Discipline

With the infamy of cyberbullying attributed to teen suicides, psychologists were some of the most concerned scholars to try to solve cyberbullying incidents. It is the most popular perspective used to study cyberbullying, contributing to the largest major area in cyberbullying literature. Subsequently, this area recommends various solutions when it comes to cyberbullying. At least three of them are the most notable.

Moreover, another research claims [13] manage to conceptualize ways to deal with the problem of cyberbullying in three steps. Firstly, with the strong association between cyberbullying and traditional bullying, bullying-preventive strategies such as training social skills and making the school climate safe may be a way to reduce the chances of cyberbullying occurring, even more so with parental mediation and safe internet use. Secondly, the study proposed three ways to combat cyberbullying, which are technical solutions (e.g., deleting messages and blocking contacts of the cyberbullies), confronting the bully (e.g., retaliating), and ignoring the bully (e.g., regulating emotion to calm down). Lastly, the study recommended appropriate emotional support and emotional coping strategies as a way to buffer the negative impact of cyberbullying. This conceptualization was designed based on the study's review of the empirical database on successful responses to cyberbullying, in which 'success' is used in terms of the strategies being able to reduce risks, combat cyberbullying, and buffering the negative impacts [13]. However, the proposed concept generalized cyberbullying and lacks data on how victims respond to different types of cyberbullying, such as flaming, harassment, slandering, and name-calling [1]. Perren's concept is also singularly focused on helping cyber victims and not cyberbullies.

Cyberbullies themselves were often implicated in a lack of empathy, so [14] suggested training empathy skills to decrease cyberbullying when their study determined that less empathy is a particular characteristic of cyberbullies. However, the study was not interpreting the causal relationship and treated empathy with a global measure that might not work for specific types of cyberbullying acts. Nevertheless, it did reveal that empathy may have a significant role in making cyberbullies less inclined to torment others online.

So far, strategies to deal with cyberbullying suggested by previous studies include seeking social support and ignoring as well as blocking cyberbullies' contacts in common. Davis, et al. [15] studied the actual strategies that cyber victims use and found a third type of solution that has reportedly worked as a way to cope, which is finding a creative/expressive outlet for the cyber victims' feelings and frustration.

Creative/expressive outlets for cyber victims are usually in the form of their hobbies, be they old or new ones. Some find an outlet for their frustration by joining Social Networking System (Henceforth: SNS) groups that are focused on cyberbullying. Alim and Khalid [16] determined that from 10 open Facebook groups on the topic of cyberbullying, anger was a prevalent emotion, but positive sentiments were also reflected which are encouraging the cyber victims to share

information on cyberbullying. However, the overall content of the SNS groups had more objective text than subjective text. Only 3% of the content contained advice about cyberbullying, and the content was mainly of opinions rather than sharing personal experiences. This finding implies that while SNS groups on cyberbullying might be successful in increasing awareness of the issue, they do not necessarily be a suitable platform to help victims cope with cyberbullying.

3.2. Solutions from IT-Media Discipline

With the infamy of cyberbullying associated with the rise of social media, SNS corporations were held responsible to make their SNS become safe environments. So far, the method to ensure that is for machine learning to find the "needles" of aggressive speech among the "haystack" of online comments and chats. Layman's concern lies in the appropriateness of computer programs surveying and collecting data on people's online activities. On the other hand, lack of data is the concern of scholars with an Information Technology (Henceforth: IT) background, along with content credibility and perceptual changes that may impact sharing. Despite SNS nowadays being synonymous with privacy concerns and cyberbullying being a cyber-trust issue [17], machine learning algorithms are still the best option to improve cyberbullying detection methods because artificial intelligence (AI) can identify nuances of language in large quantities within a much smaller timeframe compared to humans.

While the psychology area explored cyberbullying with regards to types, motives, and effects it has on people in general or students, in particular [18], the technology area explored the relationship between the popularity of information sharing and the demand for privacy and tried to determine the extent of bullying and victimization [19]. Moreover, Mann [20] advocated the risk of identity theft from the growing habit of sharing personal information with the public, such as one's thoughts, opinions, work, and even health status among others. Not only does modern citizens' penchant for sharing risk identity theft, but it has also been observed to increase the chances of receiving verbal threats online, physical threats offline, and social exclusion both online and offline. With the multiple forms of bullying (e.g., physical, verbal, social, and cyber), Beran, et al. [21] addressed the need for a multidimensional measure to study these incidents. Since cyberbullying is not limited to text and fully takes advantage of the visual power of photos, Zhong, et al. [22] used classic natural language processing techniques to focus on image features and captions on SNS and found that both serve as powerful predictors of future cyberbullying. Recently, cyberbullying has been studied within a multi-modal context rather than the generic classification model that has been used so far, thus Zhong, et al. [22]; Cheng, et al. [23] successfully developed a personalized cyberbullying detection framework, PI-Bully. Aside from developing automatic detection methods based on machine learning and AI to prevent future cyberbullying, information media has recently been proposed by Kota and Moreno [24] as an untapped resource for bullying prevention messages.

3.3. Solutions from Education Discipline

Education is perhaps the discipline with the longest history of bullying. However, it caught up somewhat late with cyberbullying because they face difficulties in detecting or finding out about cyberbullying incidents due to several reasons, but two are most notable. One, children are highly reluctant to report any bullying instances as the fear of being isolated or vindicated by their peers as sell-outs is a strong deterrent against the desire to find help among responsible adults [25]. Two, cyberbullying occurred in cyberspace, mostly undetectable to teachers since it could happen outside of school hours into late night in children's bedrooms and even during school hours whenever students use their phones in between or during classes [26]. Boxed between children's reluctance to bring the issue to light and teachers' inability to detect whenever cyberbullying is happening, educators tackled the problem by increasing awareness of all parties involved (e.g., students, parents, and teachers).

Moreover, Smith, et al. [27] surveyed the students on how they deal with being cyberbullied. The study found that while many recommended telling someone and ignoring/blocking messages, in reality, they do not follow their recommendations. Another study confirmed that children are aware of strategies to deal with being cyberbullied, they are less aware of what to do when they witness others being cyberbullied [26]. More studies even found that students perceived neither teachers nor parents would be prepared to assist them in dealing with cyberbullying [28] and frequently opposed involvement by their educational institution [24]. Surveying teachers and parents revealed more or less similar disheartening results. Not only are they mostly unaware as cyber victims and bystanders are reluctant to report, some were even uninterested in learning the effects of cyberbullying on students [29].

Cooperation to deal with cyberbullying is a big problem found in studies in this area, so increasing the sense of responsibility of all parties seems to be the overall goal [30]. School anti-bullying policies and lesson materials are obvious steps [27]. In addition, schools are advocated to develop policies for acceptable Internet and phone use. Education that is increasingly integrated with technology is advised to show that they have zero tolerance for bullying in any form to make students aware that cyberbullying incidents if discovered, would not be brushed aside. Teachers must also make sure students are aware that these incidents will be dealt with in privacy without airing any dirty laundry to the public, but not tell students to trust adults to take care of any incidents. Instead, students are advised to only tell trusted adults.

Students are the most aware of cyberbullying incidents, though they seem to be less aware of how they can truly stop cyberbullying problems, and they are certainly the most affected party. The solution offered to students by a majority of the studies in this area is to not reply to anyone bullying or harassing them online, because responding has a high chance of making the cyberbully persistent and also making themselves become cyberbullies. If they receive cyberbullying messages,

instead of deleting them, they should keep them as proof when they present the incident to another party, and not read any further messages from cyberbullies.

It is also part of schools' job to ensure parents are aware of cyberbullying incidents. While it's unlikely for parents to know of cyberbullying incidents involving their kids, they can look out for signs that indicate their children might be cyber victims, such as having trouble sleeping, feeling depressed, having mood swings, becoming anti-social, and falling behind in homework. Parents are encouraged to at least be more tech-savvy, so they can teach their children how to protect their personal information and stay safe in SNS. For a long while, parents are often assumed to still be unaware of their children possibly being cyber victims or cyberbullies, so Cassidy, et al. [31] examined parents' knowledge of SNS, level of concern, experience, and strategies to deal with cyberbullying. Their findings confirmed the long-standing assumption as the majority of parents are not aware of the extent of cyberbullying among their kids and are not even overly concerned about cyberbullying as a problem, on top of not being very familiar with newer forms of SNS. However, when prompted about their strategy, only a minority preferred stricter control over technology, while most thought of collaborating with teachers to be models of appropriate behavior for children. Therefore, the study recommended collaborative work between educators, parents, and policy-makers to promote the opposite spectrum of cyberbullying, which is "cyber-kindness," which encompasses positive, supportive, and caring online exchanges. Using this idea of increasing students' willingness to help cyberbullied victims, Leung, et al. [32] developed an innovative 6-session constructivist-based anti-cyberbullying e-course which, upon recent evaluation, has been successful in promoting prosocial behavior.

3.4. Solutions from Linguistics Area

This area is the smallest area of discipline that studies cyberbullying, with 15 papers out of the total 153. Studies on cyberbullying with a linguistic perspective typically tried to determine the characteristics of comments on SNS based on selected words. The majority of the studies found so far mostly focused on understanding the types of information posted on SNS [33] the spillover effects of offensive commenting [34] and the existence and consistency of social roles on SNS [35]. Overall, their recommended solutions are to advocate for further studies to understand more about the words used in cyberbullying activities in social media to develop Kao better detection methods of cyberbullying incidents so they can be stopped and the cyber victims can receive support. A few studies do focus on determining how language might solve the problem of cyberbullying.

Moreover, Hosseinmardi, et al. [36] examined the content of approximately 30.000 profiles of an SNS, then the images and comments [37] to design cyberbullying-detection classifiers. They found that when there are comments using words from certain linguistic categories such as death, appearance, religion, and sex, cyberbullying has a high probability to occur. This finding implied that to stop cyberbullying from continuing in an online forum or comment section, users commenting without employing said linguistic categories may reduce other users' desire to cyberbully. However, discussion on such topics is unlikely and shouldn't stop simply for the sake of avoiding the chance of being cyberbullied, and there is still no stopping users from commenting on the parent thread that should still have words on the four provoking linguistic categories.

Furthermore, Englander, et al. [3] in their attempt to define cyberbullying, provided a long list of strategies on what people (e.g., SNS users, teachers, parents) can use to stop cases of cyberbullying. From asking a person to describe their experiences on SNS (e.g., parents can ask their children to demonstrate some digital activity to subtly let children decide to hint or reveal any problem about their digital activity rather than bluntly asking them. Parents can also ask their children if their school or university educates them on the topic of cyberbullying or the use of social media to touch on the issue. A person can ask their friend if they're having problems in online interaction or their opinion of a cyberbullying incident, they're aware of, let them know that they have support, and ask if their parents are aware of or if they do something about cyberbullying incidents. Teachers can also ask parents if they're aware of their children being cyberbullied, ask how they deal with it, and then encourage them to act with supportive actions (e.g., listening, being supportive, providing different or outside perspective) rather than taking decisive actions (e.g., banning social media, taking away smartphone privileges). If cyberbullying persists despite giving personal support, the next step in helping cyberbullied victims is to notify websites that offer help to deal with cyberbullying.

3.5. Four Systematic Ways to Fight Against Cyberbullying

The solutions in the psychology area are numerous but show a commonality in their aim. Emotional coping strategies to deal with cyberbullying and expressive outlets for the frustration of being targeted by cyber victims and empathy training for cyberbullies are the solutions found in this area. Since these solutions are strategies that help a victim or bully to improve their psyche, this study sees the psychology area in cyberbullying literature playing with the rehabilitative type of solution.

IT Media dominantly consists of machine learning and AI development to detect cyberbullying on SNS, leveraging text and image classification to automatically detect to prevent future cyberbullying. While machine learning and AI are promising to flag and police online activities, third parties still could not spot contextual meaning when text-based and typographic emoticon "linguistic wordplay" is used by cyberbullies to bully another person without flagging linguistic categories or image feature classifiers [1]. Nevertheless, improving cyberbullying incidents automatically when a user uploads or posts on SNS is an essential step to prevent cyberbullying. From the five types of primary health care categories, IT media certainly plays on the preventive type of solution.

The education area's biggest obstacle is the prevalent lack of willingness to cooperate with others when it comes to dealing with cyberbullying. The majority of students are disinclined to report or confess, most teachers are unable to intervene

in cyberbullying incidents that happened "under the noses", and most parents are unaware, unconcerned, and not familiar with newer forms of SNS. For these reasons, solutions and recommendations found in this area tend to share the purpose of increasing awareness of cyberbullying. The best solution offered is the promotion of what Cassidy, et al. [10] termed "cyber-kindness." Rather than simply trying to stop cyberbullying, the education area plays with a promotive type of solution, and what it promotes is the fostering of a kinder online world with proactive efforts using positive communication.

In the area of linguistics, as the least popular perspective used to study cyberbullying so far, the few data present a limit to fully understanding the progress of linguistics-based attempts to fight against cyberbullying. However, the data collected in this present study was enough to understand what kind of role linguistics has been playing in the effort against cyberbullying. So far, linguistics areas are detecting cyberbullying cases by flagging words from certain linguistic categories and offering numerous strategies to obtain information on cyberbullying cases that are happening so people involved in cyberbullying acts will receive aid. The studies in this area assume cyberbullying to have already been happening, and their solutions are ways to heal the people involved. With this kind of characteristic, it's clear that the linguistic area plays with a curative type of solution.

This present study found no study "played" with the palliative type of solution. So far, the studies found touching on the notion of palliative strategies only suggested seeking and giving support as a possible solution [13, 38, 39]. No paper was found to be studying or suggesting long-term care for cyber victims or cyberbullies as a strategy to fight against cyberbullying. Therefore, this present paper believes that the standard operational procedure for cyberbullying consists of four types of solutions rather than the five types encompassed by the primary health care approach.

4. Conclusions

Bill Besley, who coined the word "cyberbullying" to describe the negative online interaction on social networking sites that causes anxiety, depression, and suicides in young people, has been joined by many scholars from different academic backgrounds in the effort to fight against cyberbullying. This paper used conventional content analysis [12] to examine the characteristics of the solutions recommended by 153 previous studies according to the primary health care approach of the World Health Organization. This standard operating procedure (SOP) of WHO might be able to mitigate cyberbullying which is akin to an endemic, epidemic, and even pandemic problem for countries around the globe. The primary health care approach consists of five types of care that are systematically carried out to fight against prevalent and constant national to international problems; starting from promotive, preventive, curative, and rehabilitative, to palliative types of solutions.

Previous studies that approached cyberbullying through the educational sector offered solutions that are promoting cyberbullying awareness. The goal of the education area of cyberbullying literature doesn't merely stop at increasing people's knowledge of online interactive communication's risks, but specifically aims to promote "cyber-kindness" to foster a kinder and safer online world. Studies in the IT media area heavily involved machine learning and artificial intelligence to automatically detect cyberbullying posts to prevent such incidents online. The programs almost always depend on detecting linguistic categories that indicate aggressive use of language, although studies in the linguistics area offer curative solutions, such as strategies to get to know of any occurring problems online and to heal the people involved. The largest area that studied cyberbullying is the psychology area, which has offered numerous strategies that play with the rehabilitative type of solutions, such as emotional coping strategies for cyber victims and empathy training for cyber bullies. No studies were discovered to have researched or recommended palliative solutions, so strategies involving taking care of people involved in cyberbullying incidents in long term might not be as effective in fighting against cyberbullying, although further study might prove otherwise. For now, after analyzing 153 studies on cyberbullying, this present paper might be the first study to reveal how people have been fighting against cyberbullying across disciplines could be systemized according to WHO's primary health care approach to create a systematic SOP for cyberbullying, which consisted of four steps, namely promotive (education area), preventive (IT media area), curative (linguistics area), and rehabilitative (psychology area).

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