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Systematic review of empirical studies on cyberbullying in adults: What we know and what we should investigate

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Abstract

Cyberbullying is a worldwide phenomenon and most of our knowledge comes from studies with adolescent and younger populations. Adult populations have received scarce attention. The present study is a systematic review of empirical academic papers on cyberbullying in the adult population. An online databases search (CINHAL, PsycInfo, ERIC, Medline, Pubmed, and Web of Science) identified 3,986 references that, in successive steps, were reduced to 90 studies published between 2004-2016 that met the inclusion criteria. Each study was analyzed regarding topic, methods, ages, and other general characteristics. In addition, the measures used to assess cyberbullying, the impact of cyberbullying, and the different roles of those involved in the studies with adult population were explored. Results showed that there is a need for studies conducted in locations other than university settings and that the variety of measures, as well as the different criteria utilized to identify the cyberbullied, cyberbullies, and bystanders makes it difficult to compare findings. There is a need for longitudinal studies and for evidence-based practices to deal with these violent and aggressive behaviors.

Keywords: Cyberbullying; cyber harassment; cyber stalking, Systematic review; Measurement; Adults;

1. Introduction

Cyberbullying, the use of technology to deliberately and repeatedly threaten, insult, harass or tease another, is a worldwide phenomenon. Five core components define cyberbullying: (1) it is a relational or interpersonal aggression; (2) intentional; (3) it occurs in asymmetrical situations; (4) it is repeated over time and is not a single event; (5) and is carried out via ICTs so that authorship is not always obvious (authors, in press). As Smith et. al., (2013) state, cyberbullying is in part a consequence of living in increasingly aggressive societies and there is greater potential for harm through diverse means. The chances of interpersonal conflicts increase with the anonymity that characterizes Internet exchanges (Ang, 2016).

Yet, most of our knowledge on cyberbullying comes from adolescent and younger populations. Such studies have been conducted for more than a decade and, while there are some controversies, there seems to be six main topics from previous systematic and literature reviews with younger populations that merit further analysis focused on adult populations. First, systematic studies have revealed significant inconsistencies in reported prevalence, with perpetration rates ranging from 1% to 41%, victimization rates ranging from 3% to 72%, and overlapping perpetration and victimization rates ranging from 2.3% to 16.7% (Garaigordobil, 2011; Selkie, Fales, & Moreno, 2016). It would be interesting to know if these inconsistencies are also found with adult populations and the reasons behind it.

Second, females, sexual minorities, and other ethnic minorities are seemingly at higher risk (Aboujaoude, Savage, Starcevic, & Salame, 2015; Albdour & Krouse, 2014; Cassidy, Faucher, & Jackson, 2014; Guan, Kanagasundram, Ann, Hui, & Mun, 2016). Their perpetrators are more likely to be male (Aboujaoude et al., 2015), yet, gender differences remain inconsistent across studies (Slonje, Smith, & Frisé, 2013). Additional contributing factors are a non-supportive school environment (e.g., not feeling safe at school) and risky Internet behaviors (e.g., online communication with strangers) (Guan et al., 2016). The

analysis of the situation of adult minorities and those who engage in at risk behaviors when using the Internet, will help confirm the generalization of current findings.

Third, interpersonal relationships are important variables for prevention and intervention purposes, not only in terms of the parent–adolescent relationship (Ang, 2015; Suzuki, Asaga, Sourander, Hoven, & Mandell, 2012), but also in terms of teacher-student connectedness (Duong & Bradshaw, 2014), as well as in terms of peer support (Weber, Ziegele, & Schnauber, 2013). In this regard, identifying protective factors in adult population would be aligned with these purposes.

Fourth, in youth, several short- and long-term psychosocial, affective, and academic problems have been associated to cyberbullying (Tokunaga, 2010; Zych, Ortega-Ruiz, & Del Rey, 2015), with depression (Reed, Cooper, Nugent, & Russell, 2016) and suicidal ideation and attempts (Gini & Espelage, 2014; Jordan & Austin, 2012) being some of the most severe consequences. Yet, this violent behavior seems to have a differential impact that should also be investigated. Some studies suggest that the effects of cyberbullying are less intense as they do not require face to face interaction, (Hase, Goldberg, Smith, Stuck, & Campain, 2015; Kowalski & Limber, 2013). Other studies, however, indicate that, due to the difficulties of escaping such pervasive harassment, the impact on the victim is greater (Cross, Lester, & Barnes, 2015; Melioli, Sirou, Rodgers, & Chabrol, 2015). A further exploration of these issues in adult population will shed light to this phenomenon.

Fifth, the role of bullies and bystanders has received increasing attention in youth populations (Agatston, Kowalski, & Limber, 2007; Conway, Gomez-Garibello, & Talwar, 2014; Holfeld, 2014), and the role of empathy and support is emphasized (Barlinska, Szuster, & Winiewski, 2013; Campbell et al., 2017; Navarro, Yubero, & Larrañaga, 2015). Some studies suggest that bystanders experience negative psychological impact as well (Conway et al., 2014). Yet the studies are cross-sectional or focus on short-term impacts and there is a lack of studies on longer-term effects.

Six, there is a need for investigating the validity and reliability of most of the existing instruments and for resolving the conceptual and definition fluctuations related to cyberbullying (Berne et al., 2013; Zych et al., 2015). Because the studies use different

methods and measurements, a comparison of the results is difficult (Katzner, 2009). For example, a recent review identified 41 measures, most of them aimed at assessing adolescent, high school students, and the like (Vivolo-Kantor, Martell, Holland, & Westby, 2014). The study revealed an absence of a clear definition of bullying and content validity limitations of many of the instruments, which indicates a need for further studies. The analysis of psychometric properties of measures utilized with adult population deserves the same attention.

The existing systematic reviews on cyberbullying are focused mostly on school age or youth populations (e.g., Barlett & Coyne, 2014; Kowalski, Giumetti, Schroeder, & Lattanner, 2014; Zych, Ortega-Ruiz, & Del Rey, 2015). In adult populations, the phenomenon is only recently receiving research attention (Orel, Campbell, Wozencroft, Leong, & Kimpton, 2017; Wozencroft, Campbell, Orel, Kimpton, & Leong, 2015).

1.1. Objectives of the review

Considering these shortcomings, this study aims to review the existing literature on cyberbullying in adult populations and to identify the main topics studied, the journals involved, the methods employed, and other general characteristics. In addition, we aim to further analyze the existing studies to increase our current knowledge on the previously mentioned six topics: prevalence, contributing factors, short- and long-term impact of cyberbullying, the role of bystanders, as well as validity, reliability and conceptual issues.

2. Material and Methods

2.1. Literature search

A systematic literature search was conducted at the end of December 2016 to identify peer-reviewed journal articles focused on cyberbullying and adult population (see Figure 1). The EBSCO research interface was used for CINHALL PsycInfo, ERIC and Medline databases, as it allows users to conduct advanced searches using specific fields to create a more targeted search. Additionally, the Endnote software was used to search from PubMed and Web of Science databases. The procedure consisted in selecting all empirical studies from the CINHALL PsycInfo, ERIC, Pubmed, Web of Science and Medline databases in which the terms ‘cyberbullying’, ‘cyber bullying’, ‘cyber-bullying’, ‘cyber aggression’, ‘cyber

harassment', 'online harassment' or 'cyber stalking' were mentioned. The inclusion/exclusion criteria were: (1) type of publication: academic journals; (2) publication period: all; (3) Age: adults (18 +), so that articles dealing with younger populations were excluded, (3) language of publication: English; and (4) empirical studies on prevalence and related factors. Thus, reviews, editorial, theoretical articles, as well as experimental designs, and instrumental only studies were excluded. Quality was not used as an exclusion criterion in the selection, as exploratory reviews often do not make exclusions based on quality (Armstrong et al., 2011). Rather, we were interested in identifying the quality of included articles.

The search, before removing duplicate articles, resulted in 3,986 articles. These abstracts were exported to an Endnote database. Next, 686 duplicates were removed, which resulted in 3,300 studies (see Figure 1). Inclusion/exclusion criteria were applied, which resulted in 130 studies which were retrieved, and the full text reviewed. This process left 90 papers for the current analysis.

-----Figure 1 about here-----

3. Results

3.1. Study characteristics

The 90 papers selected were published in 47 different journals. Of these, 67 of the papers (74.44%) were published in journals indexed in the Journal Citation Reports (JCR), with 40 (44.4%) being in the first quartile or its respective category, 17 (18.9%) being in the second quartile, three (3.3%) being in the third quartile, and 5 (5.6%) being in the fourth quartile. The most frequent journal category, as indexed in the JCR, was 'multidisciplinary psychology' (n = 25 papers; 27.8%), followed by 'social psychology' (n = 10; 11.1%), 'applied psychology' (n = 7; 7.7%), and 'education & educational research' (n = 7; 7.8%). The category 'criminology and penology' appears five times (5.6%). Other categories such as 'communication' and 'developmental psychology' appeared three times each (3.3%). Most of the studies that met the inclusion criteria were from recent years, with 46 of the 90 revised studies being published between 2015 and 2016.

Studies on cyberbullying in adult population frequently address (n = 20) topics related to the use of technology (computer games, communication systems, social networking sites, video games, etc.). The focus is mostly on college students (n = 71) and, to a lesser extent, on other groups of interest, mainly professionals (n = 19) such as business and industrial personnel, administrators, white collar workers, politicians, and college teachers. As for the domains of interest, a significant number focused on victimization, victims and crime (n = 20). Concerning consequences or correlates of cyberbullying, a significant number of studies focus on psychological processes, skills or personality factors (n = 28), psychopathology issues and disorders (n = 23), as well as on the analysis of behaviors, such as aggressiveness or coping skills (n = 28).

The analysis of the classification codes for the articles indexed in PsycInfo database (n = 59) reveals a primarily clinical approach (69.49%) with behavior disorders & antisocial behavior (55.93%) being the most utilized code. Social psychology topics are included in more than a fourth of the articles (28.81%), with the most commonly used code being communication systems. Finally, for studies from a developmental point of view (25.42%) the most utilized code was classroom dynamics & student adjustment & attitudes (20.34%).

Regarding the origin of the studies, more than half (61.11%) were from the USA, followed distantly by Turkey with seven studies (Ak, Özdemir, & Kuzucu, 2015; Akdemir, Vural, & Çolakoğlu, 2015; Aricak, 2009; Cankaya, Dos, & Tan, 2011; Celik, Atak, & Erguzen, 2012; Dilmaç, 2009; Ozgur, 2015), Australia with five (Every-Palmer, Barry-Walsh, & Pathé, 2015; Privitera & Campbell, 2009; Snyman & Loh, 2015; Wensley & Campbell, 2012; Wozencroft, Campbell, Orel, Kimpton, & Leong, 2015), and the United Kingdom with four (Alhaboby, al-Khateeb, Barnes, & Short, 2016; Cowie & Myers, 2014; Farley, Coyne, Sprigg, Axtell, & Subramanian, 2015; Millman, Whitty, Winder, & Griffiths, 2012). Other countries such as Israel, Portugal and Spain, have two studies each. One study was carried out in each of the following countries: Brazil, Canada, Cyprus, Czech Republic, Germany, India, Italy, Macau, New Zealand, Russia, Sweden, and Taiwan. The analysis of studied age groups suggests that most of the articles focus on young adults (18-29 years; 65.56%), followed by those in their thirties (30-39 years; 25.56%) and middle age (40-62 years; 18.89%). Only a few studies (3.33%) include individuals older than 65 years.

3.2. Measures utilized to assess cyberbullying

Most of the studies ($n = 42$) utilized ad hoc measures on cyberbullying, and lack previous research on their psychometric properties. Two studies utilized qualitative approaches and related assessment tools (open-ended questions, interviews, discussion groups, etc.) (see Johnston et al., 2014; Rivituso, 2014). Of studies utilizing previously constructed assessment tools, one of the most utilized measures is the Positive Attitudes toward Cyberbullying Questionnaire which is used in five studies, all by the same group of researchers (Barlett, 2015; Barlett & Gentile, 2012; Barlett et al., 2014; Barlett, Gentile, & Chew, 2016; Barlett, Helmstetter, & Gentile, 2016; Barlett, Gentile et al., 2016).

Similarly, the Cyberbullying Experiences Survey was used in a number of studies. It includes perpetration and victimization subscales and assesses four factors: malice, public humiliation, unwanted contact, and deception. The measure has adequate internal consistency and convergent validity properties (Doane, Kelley, Chiang, & Padilla, 2013) and has been used in six of the selected studies (Akdemir et al., 2015; Barlett, Helmstetter, & Gentile, 2016; Bauman & Baldasare, 2015; Doane, Boothe, Pearson, & Kelley, 2016; Doane, Pearson, & Kelley, 2014; Snyman & Loh, 2015).

The third most used measure is the Cyberbullying Inventory for College Students - CICS (Francisco, Simao, Ferreira, & Martins, 2015). It assesses the type and degree of involvement in cyberbullying. The inventory requires participants to remember the last cyberbullying incident they experienced or witnessed. Participants respond on a scale from 1 (never) to 3 (many times). The measure has been used in two studies where it has shown adequate psychometric properties (Ferreira, Simão, Ferreira, Souza, & Francisco, 2016; Francisco, Simão, Ferreira, & das Dores Martins, 2015).

Next, the Cyberbullying Scale, originally developed by Walker, Sockman, and Koehn (2011), was used in two studies (Barlett, Gentile et al., 2016; Peluchette et al., 2015). The measure requires the respondents to indicate whether they received or experienced any of the 13 situations in an electronic form of communication: (1) exaggerated messages of affection, (2) excessively explicit messages (3) excessively demanding messages, (4) pornographic/ obscene images or message, etc. In addition, respondents are asked to

estimate how often they experienced those communications, their sources, and the technology used.

Other authors published several studies in which they utilized the same measures. Some examples are the studies by Schenk et al., (2012, 2013) with the 47-item Internet Experiences Questionnaire (IEQ), and the Seigfried-Spellar et al., (2014, 2015) studies with the Computer Crime Index–Revised (Rogers, Seigfried, & Tidke 2006). The IEQ assesses perpetrators of cyberbullying, methods of cyberbullying, motivations, victim impact perceptions, reasons for discontinuing, traditional bully victims, and cyberbully victim experiences. The CCI-R assesses the frequency and prevalence of self-reported deviant computer behavior. The measure allows classifying participants as hackers, identity thieves, cyberbullies, and/or virus writers (Seigfried-Spellar, O'Quinn, & Treadway, 2015).

Another measure utilized is the Partner Cyber Abuse Questionnaire (Hamby, 2013), which is a short measure composed of nine items and has adequate psychometric properties (Wolford-Clevenger et al., 2016). A modified 12-Item Partner Cyber-Abuse Questionnaire (Wolford-Clevenger et al., 2016) version was used by Sargent, Krauss, Jouriles, & McDonald, (2016). It shows multi-dimensional construct with good validity and reliability values. Two additional measures encountered are the Justification of Cyber Dating Abuse Scale (Borrajo, Gámez-Guadix, & Calvete, 2015), and the Online Dating Abuse Questionnaire (Borrajo, Gámez-Guadix, & Calvete, 2015).

The Olweus Bullying Questionnaire approaches bullying from a broader perspective (Solberg & Olweus, 2003). It is a 39-item measure that assesses the frequency of bully perpetration and victimization. Originally developed for a younger population, it was adapted for older populations (Tennant, Demaray, Coyle, & Malecki, 2015; Whittaker & Kowalski, 2015) and utilized in two studies (Tennat et al., 2015; Whittaker & Kowalski, 2015). The Whittaker & Kowalski study (2015) uses adapted items to assess participants' experiences with cyberbullying.

3.3. Reported prevalence of the different roles involved in cyberbullying

Several studies confirm that cyberbullying behaviors are experienced in college populations (Gibb & Devereux, 2016). Victims of cyberbullying also experienced face-to-face bullying

(Privitera & Campbell, 2009), although there are contradictory data. Some studies find that face-to face bullying is less prevalent (Forssell, 2016), whereas other studies suggest the opposite (Gardner et al., 2016). Attitudes and motivations predict engagement in traditional bullying and cyberbullying (Boulton, et al.,2012; Johnston et al., 2014).

There is a general agreement on the reduction of these behaviors in higher education. Yet, some studies suggest that, whereas traditional bullying declines with age, cyberbullying rates are quite similar in university vs. high school levels (Wensley & Campbell, 2012). With adult populations, these behaviors are sometimes associated to intimate partner violence and, according to some studies, the rates are much higher than other types of cyberbullying (Lindsay, Booth, Messing, & Thaller, 2016; Martinez-Pecino & Durán, 2016). Outside educational settings, the rates of cyberbullying are much lower, and the organizational climate plays an important role (Forssell, 2016; Hong, Chien-Hou, Hwang, Hu, & Chen, 2014). It is difficult to estimate the long-term impact of this phenomenon due the scarcity of longitudinal and long-term studies (Feinstein et al., 2014; Selkie et al., 2015; Wright, 2015; Wright & Li, 2012).

Table 1 summarizes the rates of cyberbullying roles in the included studies; only 49 studies offered that information. If we exclude from this analysis the studies where only victims were considered (e.g., Alhabo, et al., 2016; France et al., 2013; Na et al, 2015; Rivituso, 2014), the percentage of victims ranges from 2.38% in Schenk et al. (2013) to 90.86% in Peluchette et al., (2015). Perpetrator percentages in the general population range from 0.56% (Ševčíková et al, 2009) to 54.3% in Borrajo et al., (2015). Lastly, percentages on bystanders are scarce, with prevalence ranges from 36.2% in Selkie et al., (2016) to 68,8% in Alhabash et al., (2013).

Table 1. Percentages of cyberbully victims, perpetrators, and bystanders in the included studies

Study	Sample	Measure	Victims (%)	Perpetrators (%)	Bystanders
Alhabash et al., 2013	(N = 365) college students	Anti-cyberbullying attitudes (Likert).	17.8%	9.6%	68.8%
Alhabody, et al. (2016).	(N = 19) people with disabilities victims of	A self-administered online survey	100%		

Arıcak, O. T. (2009).	cyberharassment (N = 695) college students	An ad hoc survey (Likert and Yes/No)	36.7%	2%	
Bauman et al., 2013	(N = 588) college students	An ad hoc survey (Likert)	10.5%*		
Behm-Morawitz et al, 2016)	(N = 216) An international sample of Second Life users	A self-administered online survey (Yes/No)	77.5%		
Borrajo et al., 2015).	(N = 656) adults	Online Dating Abuse (Borrajo et al., 2015). (20 items, Likert) //Justification of Cyber Dating Abuse (5 items, Likert)		54,3%*	
Cassidy, et al, 2014)	(N = 121) faculty members	A 111-item self-administered online survey (yes/no, multiple choice, open-ended questions)	17%		
Dilmaç, 2009).	(N = 666) college students	A self-administered online survey (Yes/No and multiple choice)	3%	35.7%	
Doane et al., 2016	(N = 577) college students	The 21-item victimization scale of the Cyberbullying Experiences Survey (CES)	84.9%		
Elipe et al., 2015	(N = 636) college students	Spanish version of the European Cyberbullying Intervention Project Questionnaire (ECIPQ)	54%		
Every-Palmer et al, 2015	(N = 102) New Zealand Members of Parliament	A 42-item self-administered online survey (multiple choice)	53.8%*		
Farley et al, 2015	(N = 158) trainee doctors	Cyber Negative Acts Questionnaire (CNAQ)	46.2%		
Feinstein et al., 2014	(N = 565) college students	online and text Internet Harassment Experiences (worried or threatened messaging) (Yes/No)	31.2%		
Finn, 2004	(N = 339) college students	A survey on types of online harassment (frequency)	6.26 %*		
Forssell, 2016	(N = 3371) workers from a public poll and market research company,	A 20-item cyberbullying behavior questionnaire (CBQ)	9.7% **		
France et al., 2013	(N = 200) cyberaggressors	Online survey (yes/no; Likert)		100%	
Francisco et al., 2015	(N = 349) college students	Cyberbullying Inventory for College Students	42.8%*	29.8%*	53.1%*
Gardner et al., 2016	(N = 826) workers from New Zealand	Ad hoc survey on cyberbullying//Workplace bullying	2.8%**		
Hoff et al., 2009	(N = 351) college students	Ad hoc survey (open-ended, Likert, Yes/No)	56.1%		
Gibb et al., 2016	(N = 338) college students	Cyberbullying Questionnaire-Bully (CBQ-B). Cyberbullying Questionnaire-Victim (CBQ-V).	68.9%	33.7%	
Johnston et	(N = 132) college	Qualitative survey	2.72%		

al., 2014	students				
Kamali, 2015	(N = 511) college students	Cyberbullying Experiences (being victimized); and Attempts to Cyberbully (Victimizing).	14,93%*	14,60%*	
Kokkinos et al. 2014	(N = 430) college students	Cyber-bullying/ Victimization Experiences Questionnaire (CBVEQ), (24-item, Likert)	11%	14%	
Kokkinos et al, 2016	(N = 258) college students	Greek translation of the Prevalence of Facebook Bullying scale, (16 items; Likert)		37.2%;	
Kraft et al., 2010	(N = 471) college students	An ad hoc online survey	10%		
Lindsay et al., 2016	(N = 342) college students	A survey on types of online harassment (frequency)	7.21%*		
Na et al, 2015	(N = 121) cyberbullied college students	Modified version of the Patchin and Hinduja's (2010) Cyberbullying Victimization Scale (CVS)	100%		
Martinez-Pecino et al, 2016	(N = 219) college students	Adapted version of the Scale of Victimization to refer to dating relationships (eight items; Likert)	42.3%*	43.7%*	
Molluzzo et al., 2012	(N = 121) college students	A 60-items ad hoc survey on cyberbullying (knowledge, perceptions)	7%		
Paullet et al., 2014	(N = 168) college students	An ad hoc survey	21%		66%
Peluchette et al., 2015	(N = 569) college students	A 13-item survey on Cyberbullying experience (frequency, sources)	90.86%*		
Privitera et al, 2009	(N = 103) male employees belonging to an Australian Union	A modified version of the 22-item The Negative Acts Questionnaire-Revised (NAQ-R) (bullying and cyberbullying behaviors)	10.7%**		
Rivituso, 2014	(N = 4) victimized college students	A qualitative study with Semi-structured interviews	100%		
Romito et al., 2016	(N = 412) college students	A 6- items from the European survey on violence against women or harassment	23.8%*		
Sargent et al, 2016	(N = 341) college students.	The 12-item Partner Cyber-Abuse Questionnaire (PCAQ)	49%		
Schenk et al., 2012	(N = 799) college students	A 47-item Internet Experiences Questionnaire (IEQ) (open-ended, Yes/No; multiple-choice)	8.6%		
Schenk et al., 2013	(N = 799) college students	A 47-item Internet Experiences Questionnaire (IEQ)	2.38%	7.5%	
Seigfried et al, 2014	(N = 296) college students	Computer Crime Index– Revised	23%		
Seigfried et al, 2015	(N = 296) college students	Computer Crime Index – Revised (CCI-R)	23%		
Selkie et al,	(N = 72) college	Ad hoc survey on	15.9%*	2.2%*	

2015 Selkie et al., 2016	students (N = 294) female college students	cyberbullying (Yes/No) Ad hoc survey (yes/no)	24.5%	10.8%	36.2%
Ševčíková et al., 2009	(N = 993) sample representative of the Czech population	A survey via face-to-face interviews	9.88%	0.56%	
Slovak et al, 2015	(N = 282) college students	Ad hoc survey	21.5%	20%	
Thompson et al, 2013	(N = 571) male college students	Technology-Based Coercive Behaviors		21.9%	
Tosun, 2016	(N = 199) college students	A 10-item ad hoc questionnaire (Yes/No)	9,8%*	13,6%*	
Wensley et al, 2012	(N = 528) college students	35 items from a previous bullying questionnaire	11.6%	3.8%	
Whittaker et al., 2015	(N = 169) college students	An adapted version of the Olweus Bullying Questionnaire to assess cyberbullying.	18.2%	12%	55%
Wolford- Clevenger et al, 2016	(N = 502) college students	A 9-item Partner Cyber Abuse Questionnaire (PCAQ) (Likert)	40%		
Wozencroft et al., 2015	(N = 282) college students	A 126-item questionnaire (Likert)	14.5%	7.9%	

*average percentages; ** utilizing Leymann's cut-off criterion which requires cyberbullying happening at least weekly during the last six months

3.4. Cyberbullying and its short- and long-term impact in adult victims

As with younger populations, cyberbullying behaviors impact on the psychological health of those who experience it (Mitchell et al., 2016; Romito, Cedolin, Bastiani, & Saurel-Cubizolles, 2016). More specifically, cyber victimization was found significantly related to depression (Mitchell et al., 2016) above and beyond that of traditional victimization on college students' well-being, with no differences by gender (Tennant et al., 2015).

However, not all victims are equally affected (Hu, Bernardo, Lam, & Cheang, 2016; Mitchell et al., 2016), and the differences seem to be due to certain situational characteristics such as social support (Tennant et al., 2015). Individual differences in emotional intelligence, agreeableness (Elipe, Mora-Merchán, Ortega-Ruiz, & Casas, 2015; Kokkinos, Baltzidis, & Xynogala, 2016; Millman, Whitty, Winder, & Griffiths, 2012), empathy (Doane et al., 2014), coping skills (Ak, Özdemir, & Kuzucu, 2015; Feinstein et al., 2014; Hu et al., 2016; Na et al., 2015; Schenk, Fremouw, & Keelan, 2013; Souza, Simão, & Caetano, 2014) and optimism (Snyman & Loh, 2015), help explain the differential impact of the experiences. Also, rumination seems to be a mechanism through

which cyber-victimization influences mental health problems, at least for women (Feinstein et al., 2014).

Long term effects of cyberbullying in the adult working population relate to health issues and job dissatisfaction (Farley, Coyne, Sprigg, Axtell, & Subramanian, 2015), hence, the relevance of promoting positive climate in working environments (France, Danesh, & Jirard, 2013; Gardner et al., 2016).

3.5. Contributing and at-risk factors of cyberbullying

Some specific variables have been identified as risk factors for cyberbullying. One is being involved in risky electronic communications (Cankaya, Dos, & Tan, 2011; Doane, Boothe, Pearson, & Kelley, 2016). Another factor derives from the increasing use of online learning environments, with more opportunity for misuse (Clark, Werth, & Ahten, 2012). Gender is also a relevant factor, with males reporting more cyber bullying behavior than females (Akdemir, Vural, & Çolakoğlu, 2015; Aricak, 2009; Dilmaç, 2009; Martinez-Pecino & Durán, 2016; Tosun, 2016), and a greater tendency towards being both victims and aggressors (Dilmaç, 2009; Forssell, 2016; Francisco et al., 2015). However, women experience more distress (Bauman & Newman, 2013), higher vulnerability to specific types of cyberbullying, such as intimate partner violence (Lindsay, Booth, Messing, & Thaller, 2016), and even higher vulnerability to victimization with other risk factors such as a minority racial status (Cassidy, Faucher, & Jackson, 2014).

In other studies, men show a higher tendency towards technology-based coercive behavior (Akdemir, Vural, & Çolakoğlu, 2015; Aricak, 2009; Tang & Fox, 2016; Thompson & Morrison, 2013), whereas women are at higher risk of experiencing cyber-harassment in virtual worlds (Behm-Morawitz & Schipper, 2016). Having poorer social skills, poorer communication, and poorer imagination are associated to higher chances of being engaged in computer deviant behaviors (Seigfried et al., 2015). Certain professional groups, such as politicians, are also at greater risk for cyberbullying (Every-Palmer, Barry-Walsh, & Pathé, 2015). Likewise, being a minority in terms of sexual orientation has been identified as risk factor for cyberbullying (Finn, 2004; Wensley & Campbell, 2012) as has having a disability (Alhaboby, al-Khateeb, Barnes, & Short, 2016; Seigfried-Spellar et al., 2015).

Concerning contextual variables and their relation to cyberbullying, some studies focus on social networks and security issues, (Ševčíková & Šmahel, 2009), whereas other studies emphasize the relevance of childhood negative experiences (Ménard & Pincus, 2012).

3.6. Cyber bullies and cyberbullying bystanders

In a cyberbullying situation not only the victims are affected. Several studies found that cyber bullies exhibit more psychological symptoms including depression, having more unemotional, impulsive and psychopathic traits, being a high sensation seekers, and engaging more in violent and drug crimes (Aricak, 2009; Every-Palmer, Barry-Walsh, & Pathé, 2015; Johnston et al., 2014; Kokkinos et al., 2014; Schenk et al., 2013; Selkie et al., 2015). They also scored high on Internet use, showed a lack of social skills (Kokkinos et al., 2014), and problematic alcohol use (Selkie et al., 2015). Perpetrators also showed low empathy toward cyberbullying victims (Doane et al., 2014; France et al., 2013),

Concerning bystanders, more people witness behaviors than participate (Selkie, Kota, & Moreno, 2016) and, from this, some researchers state that the inaction of bystanders can augment the deleterious effects of bullying on a victim (Brody & Vangelisti, 2016). When a bystander challenges the bully or supports the victim, they model dissenting behavior (Anderson, Bresnahan, & Musatics, 2014). Yet, for them to intervene it is necessary that they feel a sense of connectedness to the cyberbullied and a belief that they are safe, so that they do not become victims themselves (Obermaier, Fawzi, & Koch, 2016; Rafferty & Vander Ven, 2014). Bystanders who are inactive are more likely to become a victim or an aggressor themselves (Ferreira et al., 2016). Normative beliefs about aggression help explain the lack of involvement of passive bystanders (Pullet & Pinchot, 2014; Wright & Li, 2013). Sometimes they blame the victim (Morrow & Downey, 2013) and are reluctant to intervene. Sometimes the victim is marginalized by peer indifference and hostility, and the bully fails to understand the consequences of their actions (Cowie & Myers, 2014).

4. Discussion

This systematic review reveals that a significant number of studies on cyberbullying in adult populations are published in high quality journals focused on psychology issues from a multidisciplinary and social approach. Most of the studies on cyberbullying in adults

focus on college students. The focus is on the use of technology and associated risky behaviors, as well as on psychological processes involved, rather than on the impact on mental health, which is more typical in studies with younger population (Bottino, Bottino, Regina, Correia, & Ribeiro, 2015). There is an overrepresentation of studies from the USA and, as cultural variables have significant impact (Barlett et al., 2014), there is a need for more diverse studies. There is also a need for studies conducted in locations other than university settings, which may help reduce the scarcity of studies with middle age and older populations.

Concerning measures to assess cyberbullying in adult populations, there is a significant diversity of measures which makes it difficult to compare findings among studies. However, most measures utilized include information on their reliability and validity properties, as well a definition on the phenomenon under study. Given that most of the analyzed articles utilize similar population (i.e. college students), the substantial differences in prevalence could be mainly related to the criteria for being considered cyberbullied. A conservative approach requires at least one negative act on a weekly basis over a 6-month period to label the negative behavior as bullying or cyberbullying (Forsell, 2016; Leymann, 1996). This allows differentiating bullying from short-term personal conflicts (Agervold, 2007). Yet, in most of the included studies, a less conservative approach is utilized, requiring only, in some instances, that one state that cyberbullying has been experienced to be considered a cyberbully victim. The prevalence rates in the studies where a conservative approach was utilized range from 2.8% (Gardner et al., 2016) to 10.7% (Privitera et al, 2009) for the working population, which seems more reasonable. Further studies should include more information on this and a conservative definition of cyberbullying is advisable.

The impact of cyberbullying in adult populations may be as severe as with younger populations. The differential impact of such experiences depends on the interaction of personal and environmental factors, with emotional intelligence and social support being some of the most influential variables. Findings on long-term effects of cyberbullying are not clear, given the scarcity of longitudinal studies. There is also a lack of well-controlled and experimental intervention studies to reduce cyberbullying in adult populations. As the

literature shows, it is possible to improve cyberbullying behaviors with relatively simple interventions (Doane, et al, 2016). Another pending task relates to the need for evidence-based interventions in adult settings.

As is the case with younger populations, perpetrators possess some associated traits (e.g., impulsivity) and behaviors (e.g., lack of social skills). Being a bystander of cyberbullying is facilitated by the way the bullying is carried out. In contrast to face-to-face bullying, the distance imposed by technology seems to facilitate the bystander role. There is also a lack of studies on the longer-term effects of cyberbullying on bystanders. Given that the reactions and behaviors of bystanders may impact the outcome of the bullying event, further studies on the impact of these episodes on observers of bullying are necessary. Also, more studies with minorities and their involvement in cyberbullying behaviors is advisable. Since most studies included cyberbullying as the dependent variable, there is a need to further explore medium and long-term effects of cyberbullying and cybervictimization in the different domains of life.

There are several challenges that future studies on cyberbullying in adult populations should meet. Given that today's children will be tomorrow's adults, and the very high rates of cyberbullying in the adolescent population, it is to be expected that, in the near future, rates of such behaviors will rise dramatically in the adult population. Hence, the importance of having adequate assessment tools and evidence-based practices to deal with these violent and aggressive behaviors, as well as supportive work environments to prevent these behaviors from occurring in adult life. Experimental studies have demonstrated that it is possible to improve cyberbullying knowledge, and cyberbullying perpetration behavior in college students (Doane, Kelley, & Pearson 2016). So, the challenge is to demonstrate its efficacy with broader range of diverse populations.

Some final words on limitations of the current study. First, the study has been developed from a search in data bases of empirical peer-review papers. Consequently, we have removed a significant number of studies from the analysis that did not meet the inclusion criteria. Further studies will help gather additional evidence from excluded sources. Second, this is a broad spectrum systematic review and further studies should focus on specific topics (e.g., adult bystanders, psychological effects, etc.). Likewise, meta-analytic

studies on associated variables and interventions will help shed light on these preliminary findings.

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References

Note: References marked with an asterisk indicate studies included in the systematic review.

- Aboujaoude, E., Savage, M. W., Starcevic, V., & Salame, W. O. (2015). Cyberbullying: Review of an old problem gone viral. *Journal of Adolescent Health, 57*(1), 10-18. doi: 10.1016/j.jadohealth.2015.04.011
- Agatston, P. W., Kowalski, R., & Limber, S. (2007). Students' perspectives on cyber bullying. *Journal of Adolescent Health, 41*(6,Suppl), S59-S60. doi: 10.1016/j.jadohealth.2007.09.003
- Agervold, M. (2007). Bullying at work: a discussion of definitions and prevalence, based on an empirical study. *Scandinavian Journal of Psychology, 48*(2), 161e172.
- *Ak, Ş., Özdemir, Y., & Kuzucu, Y. (2015). Cybervictimization and cyberbullying: The mediating role of anger, don't anger me! *Computers in Human Behavior, 49*, 437-443. doi: 10.1016/j.chb.2015.03.030
- *Akdemir, Ö., Vural, Ö. F., & Çolakoğlu, Ö. M. (2015). Prospective teachers' likelihood of performing unethical behaviors in the real and virtual environments. *TOJET: The Turkish Online Journal of Educational Technology, 14*(2), 130-137.
- Albdour, M., & Krouse, H. J. (2014). Bullying and victimization among African American adolescents: A literature review. *Journal of Child and Adolescent Psychiatric Nursing, 27*(2), 68-82. doi: 10.1111/jcap.12066
- *Alhabash, S., McAlister, A. R., Hagerstrom, A., Quilliam, E. T., Rifon, N. J., & Richards, J. I. (2013). Between likes and shares: Effects of emotional appeal and virality on the persuasiveness of anticyberbullying messages on Facebook. *Cyberpsychology, Behavior, and Social Networking, 16*(3), 175-182. doi: 10.1089/cyber.2012.0265
- *Alhaboby, Z. A., al-Khateeb, H. M., Barnes, J., & Short, E. (2016). 'The language is disgusting and they refer to my disability': The cyberharassment of disabled people. *Disability & Society, 31*(8), 1138-1143. doi: 10.1080/09687599.2016.1235313
- *Anderson, J., Bresnahan, M., & Musatics, C. (2014). Combating weight-based cyberbullying on Facebook with the dissenter effect. *Cyberpsychology, Behavior, and Social Networking, 17*(5), 281-286. doi: 10.1089/cyber.2013.0370
- Ang, R. P. (2015). Adolescent cyberbullying: A review of characteristics, prevention and intervention strategies. *Aggression and Violent Behavior, 25*(Part A), 35-42. doi: 10.1016/j.avb.2015.07.011

- Ang, R. P. (2016). Cyberbullying: Its prevention and intervention strategies. In S. Deb (Ed.), *Child safety, welfare and well-being: Issues and challenges*. (pp. 25-38). New York, NY, US: Springer Science + Business Media.
- *Aricak, O. T. (2009). Psychiatric symptomatology as a predictor of cyberbullying among university students. *Egitim Arastirmalari-Eurasian Journal of Educational Research*, 8(34), 167-184.
- Armstrong, R., Hall, B. J., Doyle, J., & Waters, E. (2011). Cochrane update. 'Scoping the scope' of a Cochrane review. *Journal of Public Health*, 33, 147-150.
- *Barlett, C. P. (2015). Anonymously hurting others online: The effect of anonymity on cyberbullying frequency. *Psychology of Popular Media Culture*, 4(2), 70-79. doi: 10.1037/a0034335
- *Barlett, C., Chamberlin, K., & Witkower, Z. (2016). Predicting cyberbullying perpetration in emerging adults: A theoretical test of the Barlett Gentile Cyberbullying Model. *Aggressive Behavior*, 43(2), 147-154. doi: 10.1002/ab.21670
- Barlett, C., & Coyne, S. M. (2014). A meta-analysis of sex differences in cyber-bullying behavior: The moderating role of age. *Aggressive Behavior*, 40(5), 474-488. doi: 10.1002/ab.21555
- *Barlett, C. P., & Gentile, D. A. (2012). Attacking others online: The formation of cyberbullying in late adolescence. *Psychology of Popular Media Culture*, 1(2), 123-135. doi: 10.1037/a0028113
- *Barlett, C. P., Gentile, D. A., Anderson, C. A., Suzuki, K., Sakamoto, A., Yamaoka, A. (2014). Cross-cultural differences in cyberbullying behavior: A short-term longitudinal study. *Journal of Cross-Cultural Psychology*, 45(2), 300-313. doi: 10.1177/0022022113504622
- *Barlett, C. P., Gentile, D. A., & Chew, C. (2016). Predicting cyberbullying from anonymity. *Psychology of Popular Media Culture*, 5(2), 171-180. doi: 10.1037/ppm0000055
- *Barlett, C. P., Helmstetter, K., & Gentile, D. A. (2016). The development of a new cyberbullying attitude measure. *Computers in Human Behavior*, 64, 906-913. doi: 10.1016/j.chb.2016.08.013
- Barlinska, J., Szuster, A., & Winiewski, M. (2013). Cyberbullying among adolescent bystanders: Role of the communication medium, form of violence, and empathy. *Journal of Community & Applied Social Psychology*, 23(1), 37-51. doi: 10.1002/casp.2137
- *Bauman, S., & Baldasare, A. (2015). Cyber aggression among college students: Demographic differences, predictors of distress, and the role of the university. *Journal of College Student Development*, 56(4), 317-330. doi: 10.1353/csd.2015.0039
- *Bauman, S., & Newman, M. L. (2013). Testing assumptions about cyberbullying: perceived distress associated with acts of conventional and cyber bullying. *Psychology of Violence*, 3(1), 27-38. doi: 10.1037/a0029867
- *Behm-Morawitz, E., & Schipper, S. (2016). Sexing the avatar: Gender, sexualization, and cyber-harassment in a virtual world. *Journal of Media Psychology: Theories, Methods, and Applications*, 28(4), 161-174. doi: 10.1027/1864-1105/a000152
- Berne, S., Frisén, A., Schultze-Krumbholz, A., Scheithauer, H., Naruskov, K., Luik, P. (2013). Cyberbullying assessment instruments: A systematic review. *Aggression and Violent Behavior*, 18(2), 320-334. doi: 10.1016/j.avb.2012.11.022

- *Borrajó, E., Gámez-Guadix, M., & Calvete, E. (2015). Justification beliefs of violence, myths about love and cyber dating abuse. *Psicothema*, 27(4), 327-333.
- Borrajó, E., Gámez-Guadix, M., Pereda, N., & Calvete, E. (2015). The development and validation of the cyber dating abuse questionnaire among young couples. *Computers in Human Behavior*, 48, 358-365. doi: 10.1016/j.chb.2015.01.063
- Bottino, S. M., Bottino, C. M., Regina, C. G., Correia, A. V., & Ribeiro, W. S. (2015). Cyberbullying and adolescent mental health: systematic review. *Cadernos de Saude Publica*, 31(3), 463-475. doi: S0102-311X2015000300463 [pii]
- *Boulton, M., Lloyd, J., Down, J., & Marx, H. (2012). Predicting undergraduates' self-reported engagement in traditional and cyberbullying from attitudes. *Cyberpsychology, Behavior, and Social Networking*, 15(3), 141-147. doi: 10.1089/cyber.2011.0369
- *Brody, N., & Vangelisti, A. L. (2016). Bystander intervention in cyberbullying. *Communication Monographs*, 83(1), 94-119. doi: 10.1080/03637751.2015.1044256
- Campbell, M. A., Whiteford, C., Duncanson, K., Spears, B., Butler, D., & Slee, P. T. (2017). Cyberbullying bystanders: Gender, grade, and actions among primary and secondary school students in Australia. *International Journal of Technoethics*, 8(1), 44-55. doi: 10.4018/Ijt.2017010104
- *Cankaya, I. H., Dos, I., & Tan, C. (2011). Effect of cyber bullying on the distrust levels of pre-service teachers: Internet addiction as mediating variable. *New Educational Review*, 25(3), 53-65.
- *Cassidy, W., Faucher, C., & Jackson, M. (2014). The dark side of the Ivory Tower: Cyberbullying of university faculty and teaching personnel. *Alberta Journal of Educational Research*, 60(2), 279-299.
- *Celik, S., Atak, H., & Erguzen, A. (2012). The effect of personality on cyberbullying among university students in Turkey. *Egitim Arastirmalari-Eurasian Journal of Educational Research*, 12(49), 129-150.
- *Clark, C. M., Ahten, S., & Werth, L. (2012). Cyber-bullying and incivility in an online learning environment, part 2: promoting student success in the virtual classroom. *Nurse Education*, 37(5), 192-197. doi: 10.1097/NNE.0b013e318262eb2b
- *Clark, C. M., Werth, L., & Ahten, S. (2012). Cyber-bullying and incivility in the online learning environment, Part 1: Addressing faculty and student perceptions. *Nurse Education*, 37(4), 150-156. doi: 10.1097/NNE.0b013e31825a87e5
- Conway, L., Gomez-Garibello, C., & Talwar, V. (2014). Moving from traditional bullying to cyberbullying: The role of moral emotions and reasoning. *Alberta Journal of Educational Research*, 60(1), 216-220.
- *Cowie, H., & Myers, C.-A. (2014). Bullying amongst university students in the UK. *The International Journal of Emotional Education*, 6(1), 66-75.
- Cross, D., Lester, L., & Barnes, A. (2015). A longitudinal study of the social and emotional predictors and consequences of cyber and traditional bullying victimisation. *International Journal of Public Health*, 60(2), 207-217. doi: 10.1007/s00038-015-0655-1
- *Crosslin, K., & Golman, M. (2014). 'Maybe you don't want to face it'—College students' perspectives on cyberbullying. *Computers in Human Behavior*, 41, 14-20. doi: 10.1016/j.chb.2014.09.007
- *D'Cruz, P., & Noronha, E. (2014). The interface between technology and customer cyberbullying: Evidence from India. *Information & Organization*, 24(3), 176-193.

- *Dilmaç, B. (2009). Psychological needs as a predictor of cyber bullying: A preliminary report on college students. *Kuram ve Uygulamada Eğitim Bilimleri*, 9(3), 1307-1325.
- *Doane, A. N., Boothe, L. G., Pearson, M. R., & Kelley, M. L. (2016). Risky electronic communication behaviors and cyberbullying victimization: An application of Protection Motivation Theory. *Computers in Human Behavior*, 60, 508-513. doi: 10.1016/j.chb.2016.02.010
- Doane, A. N., Kelley, M. L., Chiang, E. S., & Padilla, M. A. (2013). Development of the Cyberbullying Experiences Survey. *Emerging Adulthood*, 1(3), 207-218. doi: 10.1177/2167696813479584
- Doane, A. N., Kelley, M. L., & Pearson, M. R. (2016). Reducing cyberbullying: A theory of reasoned action-based video prevention program for college students. *Aggressive Behavior*, 42(2), 136-146. doi:10.1002/ab.21610
- *Doane, A. N., Pearson, M. R., & Kelley, M. L. (2014). Predictors of cyberbullying perpetration among college students: An application of the Theory of Reasoned Action. *Computers in Human Behavior*, 36, 154-162. doi: 10.1016/j.chb.2014.03.051
- Duong, J., & Bradshaw, C. (2014). Associations between Bullying and Engaging in Aggressive and Suicidal Behaviors among Sexual Minority Youth: The Moderating Role of Connectedness. *Journal of School Health*, 84(10), 636-645.
- *Eden, S., Heiman, T., & Olenik-Shemesh, D. (2013). Teachers' perceptions, beliefs and concerns about cyberbullying. *British Journal of Educational Technology*, 44(6), 1036-1052. doi: 10.1111/j.1467-8535.2012.01363.x
- *Elipe, P., Mora-Merchán, J. A., Ortega-Ruiz, R., & Casas, J. A. (2015). Perceived emotional intelligence as a moderator variable between cybervictimization and its emotional impact. *Frontiers in Psychology*, 6, 1-11. doi: 10.3389/fpsyg.2015.00486
- *Every-Palmer, S., Barry-Walsh, J., & Pathé, M. (2015). Harassment, stalking, threats and attacks targeting New Zealand politicians: A mental health issue. *The Australian And New Zealand Journal of Psychiatry*, 49(7), 634-641. doi: 10.1177/0004867415583700
- *Farley, S., Coyne, I., Sprigg, C., Axtell, C., & Subramanian, G. (2015). Exploring the impact of workplace cyberbullying on trainee doctors. *Medical Education*, 49(4), 436-443. doi: 10.1111/medu.12666
- *Feinstein, B. A., Bhatia, V., & Davila, J. (2014). Rumination mediates the association between cyber-victimization and depressive symptoms. *Journal of Interpersonal Violence*, 29(9), 1732-1746. doi: 10.1177/0886260513511534
- *Ferreira, P. C., Simão, A. M. V., Ferreira, A., Souza, S., & Francisco, S. (2016). Student bystander behavior and cultural issues in cyberbullying: When actions speak louder than words. *Computers in Human Behavior*, 60, 301-311. doi: 10.1016/j.chb.2016.02.059
- *Finn, J. (2004). A Survey of online harassment at a university campus. *Journal of Interpersonal Violence*, 19(4), 468-483. doi: 10.1177/0886260503262083
- *Forssell, R. (2016). Exploring cyberbullying and face-to-face bullying in working life – prevalence, targets and expressions. *Computers in Human Behavior*, 58, 454-460. doi: 10.1016/j.chb.2016.01.003

- *France, K., Danesh, A., & Jirard, S. (2013). Informing aggression-prevention efforts by comparing perpetrators of brief vs. extended cyber aggression. *Computers in Human Behavior*, 29(6), 2143-2149. doi: 10.1016/j.chb.2013.05.011
- *Francisco, S. M., Simão, A. M. V., Ferreira, P. C., & das Dores Martins, M. J. (2015). Cyberbullying: The hidden side of college students. *Computers in Human Behavior*, 43, 167-182. doi: 10.1016/j.chb.2014.10.045
- Garaigordobil, M. (2011). Prevalencia y consecuencias del cyberbullying: una revisión = Prevalence and consequences of cyberbullying: A review. *International Journal of Psychology & Psychological Therapy*, 11(2), 233-254.
- *Gardner, D., O'Driscoll, M., Cooper-Thomas, H. D., Roche, M., Bentley, T., Catley, B. (2016). Predictors of workplace bullying and cyber-bullying in New Zealand. *International Journal of Environmental Research and Public Health*, 13(5), 448, 14 pp. doi: 10.3390/Ijerp13050448
- *Gibb, Z. G., & Devereux, P. G. (2016). Missing link: Exploring repetition and intentionality of distress in cyberbullying behaviors within a college population. *Translational Issues in Psychological Science*, 2(3), 313-322. doi: 10.1037/tps0000083
- Gini, G., & Espelage, D. L. (2014). Peer victimization, cyberbullying, and suicide risk in children and adolescents. *JAMA: Journal of the American Medical Association*, 312(5), 545-546. doi: 10.1001/jama.2014.3212
- Guan, N. C., Kanagasundram, S., Ann, Y. H., Hui, T. L., & Mun, T. K. (2016). Cyber bullying—A new social menace. *ASEAN Journal of Psychiatry*, 17(1), 104-115. Retrieved from: <https://www.aseanjournalofpsychiatry.org/index.php/aseanjournalofpsychiatry/article/download/362/239>
- Hamby, S. (2013). *The Partner Cyber Abuse Questionnaire: Preliminary psychometrics of technology-based intimate partner violence*. Paper presented at the Annual Convention of the Southeastern Psychological Association, Atlanta, GA.
- Hase, C. N., Goldberg, S. B., Smith, D., Stuck, A., & Campain, J. (2015). Impacts of traditional bullying and cyberbullying on the mental health of middle school and high school students. *Psychology in the Schools*, 52(6), 607-617. doi: 10.1002/pits.21841
- *Hoff, D. L., & Mitchell, S. N. (2009). Cyberbullying: Causes, effects, and remedies. *Journal of Educational Administration*, 47(5), 652-665. doi: 10.1108/09578230910981107
- Holfeld, B. (2014). Perceptions and attributions of bystanders to cyber bullying. *Computers in Human Behavior*, 38, 1-7. doi: 10.1016/j.chb.2014.05.012
- *Hong, J.C., Chien-Hou, L., Hwang, M.Y., Hu, R.P., & Chen, Y.L. (2014). Positive affect predicting worker psychological response to cyber-bullying in the high-tech industry in Northern Taiwan. *Computers in Human Behavior*, 30, 307-314. doi: 10.1016/j.chb.2013.09.011
- *Hu, Q., Bernardo, A. B. I., Lam, S. W., & Cheang, P. K. (2016). Individualism-collectivism orientations and coping styles of cyberbullying victims in Chinese culture. *Current Psychology: A Journal for Diverse Perspectives on Diverse Psychological Issues*. doi: 10.1007/s12144-016-9490-7
- *Johnston, P., Tankersley, M., Joenson, T., Hupp, M., Buckley, J., & Redmond-McGowan, M. (2014). Motivations behind "bullies then offenders" versus "pure bullies":

- Further suggestions for anti-bully education and practice. *Education*, 134(3), 316-325.
- Jordan, K., & Austin, J. (2012). A review of the literature on bullying in U.S. schools and how a parent–educator partnership can be an effective way to handle bullying. *Journal of Aggression, Maltreatment & Trauma*, 21(4), 440-458. doi: 10.1080/10926771.2012.675420
- *Kamali, A. (2015). Assessing cyberbullying in higher education. *Information Systems Education Journal*, 13(6), 43-53.
- Katzer, C. (2009). Cyberbullying in Germany: What has been done and what is going on. *Zeitschrift für Psychologie/Journal of Psychology*, 217(4), 222-223. doi: 10.1027/0044-3409.217.4.222
- *Kokkinos, C. M., Antoniadou, N., & Markos, A. (2014). Cyber-bullying: An investigation of the psychological profile of university student participants. *Journal of Applied Developmental Psychology*, 35(3), 204-214. doi: 10.1016/j.appdev.2014.04.001
- *Kokkinos, C. M., Baltzidis, E., & Xynogala, D. (2016). Prevalence and personality correlates of Facebook bullying among university undergraduates. *Computers in Human Behavior*, 55(Part B), 840-850. doi: 10.1016/j.chb.2015.10.017
- Kowalski, R. M., & Limber, S. P. (2013). Psychological, physical, and academic correlates of cyberbullying and traditional bullying. *Journal of Adolescent Health*, 53(1, Suppl), S13-S20. doi: 10.1016/j.jadohealth.2012.09.018
- Kowalski, R. M., Giumetti, G. W., Schroeder, A. N., & Lattanner, M. R. (2014). Bullying in the digital age: A critical review and meta-analysis of cyberbullying research among youth. *Psychological Bulletin*, 140(4), 1073-1137. doi: 10.1037/a0035618
- *Kraft, E. M., & Wang, J. (2010). An exploratory study of the cyberbullying and cyberstalking experiences and factors related to victimization of students at a public liberal arts college. *International Journal of Technoethics*, 1(4), 74-91. doi: 10.4018/jte.2010100106
- Kubiszewski, V., Fontaine, R., Potard, C., & Auzoult, L. (2015). Does cyberbullying overlap with school bullying when taking modality of involvement into account? *Computers in Human Behavior*, 43, 49-57. doi: 10.1016/j.chb.2014.10.049
- *Lampridis, E. (2015). Stereotypical beliefs about cyber bullying: An exploratory study in terms of myths. *Universal Journal of Educational Research*, 3(2), 135-147. doi: 10.13189/ujer.2015.030210
- Leymann, H. (1996). The content and development of mobbing at work. *European Journal of Work and Organizational Psychology*, 5, 165-185.
- *Lindsay, M., Booth, J. M., Messing, J. T., & Thaller, J. (2016). Experiences of online harassment among emerging adults: Emotional reactions and the mediating role of fear. *Journal of Interpersonal Violence* 31(19) 3174-3195. doi: 10.1177/0886260515584344
- *Martinez-Pecino, R., & Durán, M. (2016). I love you but I cyberbully you: The role of hostile sexism. *Journal of Interpersonal Violence*, 1-14. doi: 10.1177/0886260516645817
- *Melander, L. A. (2010). College students' perceptions of intimate partner cyber harassment. *Cyberpsychology, Behavior, and Social Networking*, 13(3), 263-268. doi: 10.1089/cyber.2009.0221
- Melioli, T., Sirou, J., Rodgers, R. F., & Chabrol, H. (2015). Étude du profil des personnes victimes d'intimidation réelle et d'intimidation sur Internet. = Exploratory study of

- profiles from bullying and cyberbullying victims. *Neuropsychiatrie de l'Enfance et de l'Adolescence*, 63(1), 30-35. doi: 10.1016/j.neurenf.2014.07.007
- *Ménard, K. S., & Pincus, A. L. (2012). Predicting overt and cyber stalking perpetration by male and female college students. *Journal of Interpersonal Violence*, 27(11), 2183-2207. doi: 10.1177/0886260511432144
- *Millman, C., Whitty, M., Winder, B., & Griffiths, M. D. (2012). Perceived criminality of cyber-harassing behaviors among undergraduate students in the United Kingdom. *International Journal of Cyber Behavior, Psychology and Learning*, 2(4), 49-59. doi: 10.4018/ijcbpl.2012100104
- *Mitchell, S. M., Seegan, P. L., Roush, J. F., Brown, S. L., Sustaíta, M. A., & Cukrowicz, K. C. (2016). Retrospective cyberbullying and suicide ideation: The mediating roles of depressive symptoms, perceived burdensomeness, and thwarted belongingness. *Journal of Interpersonal Violence*, 1-19. doi: 10.1177/0886260516628291
- *Molluzzo, J. C., & Lawler, J. P. (2012). A study of the perceptions of college students on cyberbullying. *Information Systems Education Journal*, 10(4), 84-109.
- *Morrow, A., & Downey, C. A. (2013). Perceptions of adolescent bullying: Attributions of blame and responsibility in cases of cyber-bullying. *Scandinavian Journal of Psychology*, 54(6), 536-540. doi: 10.1111/sjop.12074
- *Na, H., Dancy, B. L., & Park, C. (2015). College student engaging in cyberbullying victimization: Cognitive appraisals, coping strategies, and psychological adjustments. *Archives of Psychiatric Nursing*, 29(3), 155-161. doi: 10.1016/j.apnu.2015.01.008
- Navarro, R., Yubero, S., & Larrañaga, E. (2015). Psychosocial risk factors for involvement in bullying behaviors: empirical comparison between cyberbullying and social bullying victims and bullies. *School Mental Health*, 7(4), 235-248. doi: 10.1007/s12310-015-9157-9
- *Obermaier, M., Fawzi, N., & Koch, T. (2016). Bystanding or standing by? How the number of bystanders affects the intention to intervene in cyberbullying. *New Media & Society*, 18(8), 1491-1507. doi: 10.1177/1461444814563519
- Orel, A., Campbell, M., Wozencroft, K., Leong, E., & Kimpton, M. (2017). Exploring university students' coping strategy intentions for cyberbullying. *Journal of Interpersonal Violence*, 32(3), 446-462. doi: 10.1177/0886260515586363
- *Ozgur, H. (2015). Exploring the distance education students' cyberbullying, cybervictimization and cyberbullying sensibility levels. *Turkish Online Journal of Distance Education*, 16(4), 3-17.
- *Pullet, K., & Pinchot, J. (2014). Behind the screen where today's bully plays: Perceptions of college students on cyberbullying. *Journal of Information Systems Education*, 25(1), 63-69.
- *Peluchette, J. V., Karl, K., Wood, C., & Williams, J. (2015). Cyberbullying victimization: Do victims' personality and risky social network behaviors contribute to the problem? *Computers in Human Behavior*, 52, 424-435. doi: 10.1016/j.chb.2015.06.028
- *Privitera, C., & Campbell, M. A. (2009). Cyberbullying: The new face of workplace bullying? *CyberPsychology & Behavior*, 12(4), 395-400. doi: 10.1089/cpb.2009.0025

- *Rafferty, R., & Vander Ven, T. (2014). 'I hate everything about you': A qualitative examination of cyberbullying and on-line aggression in a college sample. *Deviant Behavior, 35*(5), 364-377. doi: 10.1080/01639625.2013.849171
- Reed, K. P., Cooper, R. L., Nugent, W. R., & Russell, K. (2016). Cyberbullying: A literature review of its relationship to adolescent depression and current intervention strategies. *Journal of Human Behavior in the Social Environment, 26*(1), 37-45. doi: 10.1080/10911359.2015.1059165
- *Rivituso, J. (2014). Cyberbullying victimization among college students: An interpretive phenomenological analysis. *Journal of Information Systems Education, 25*(1), 71-75.
- Rogers, M., Seigfried, K., & Tidke, K. (2006). Self-reported computer criminal behavior: A psychological analysis. *Digital Investigation, 3*, 116–120. doi: 10.1016/j.diin.2006.06.002
- *Romito, P., Cedolin, C., Bastiani, F., & Saurel-Cubizolles, M. J. (2016). Disordered eating behaviors and sexual harassment in Italian male and female university students. *Journal of Interpersonal Violence, 1*-15. doi: 10.1177/0886260516664315
- *Sargent, K. S., Krauss, A., Jouriles, E. N., & McDonald, R. (2016). Cyber victimization, psychological intimate partner violence, and problematic mental health outcomes among first-year college students. *Cyberpsychology, Behavior, and Social Networking, 19*(9), 545-550. doi: 10.1089/cyber.2016.0115
- *Schenk, A. M., & Fremouw, W. J. (2012). Prevalence, psychological impact, and coping of cyberbully victims among college students. *Journal of School Violence, 11*(1), 21-37. doi: 10.1080/15388220.2011.630310
- *Schenk, A. M., Fremouw, W. J., & Keelan, C. M. (2013). Characteristics of college cyberbullies. *Computers in Human Behavior, 29*(6), 2320-2327. doi: 10.1016/j.chb.2013.05.013
- *Seigfried-Spellar, K. C., & Treadway, K. N. (2014). Differentiating hackers, identity thieves, cyberbullies, and virus writers by college major and individual differences. *Deviant Behavior, 35*(10), 782-803. doi: 10.1080/01639625.2014.884333
- *Seigfried-Spellar, K. C., O'Quinn, C. L., & Treadway, K. N. (2015). Assessing the relationship between autistic traits and cyberdeviancy in a sample of college students. *Behaviour & Information Technology, 34*(5), 533-542. doi: 10.1080/0144929x.2014.978377
- Selkie, E. M., Fales, J. L., & Moreno, M. A. (2016). Cyberbullying prevalence among US middle and high school-aged adolescents: A systematic review and quality assessment. *Journal of Adolescent Health, 58*(2), 125-133. doi: 10.1016/j.jadohealth.2015.09.026
- *Selkie, E. M., Kota, R., & Moreno, M. (2016). Cyberbullying behaviors among female college students: Witnessing, perpetration, and victimization. *College Student Journal, 50*(2), 278-287.
- *Selkie, E. M., Kota, R., Chan, Y. F., & Moreno, M. (2015). Cyberbullying, depression, and problem alcohol use in female college students: A multisite study. *Cyberpsychology, Behavior, and Social Networking, 18*(2), 79-86. doi: 10.1089/cyber.2014.0371
- *Ševčíková, A., & Šmahel, D. (2009). Online harassment and cyberbullying in the Czech Republic: Comparison across age groups. *Zeitschrift für Psychologie/Journal of Psychology, 217*(4), 227-229. doi: 10.1027/0044-3409.217.4.227

- Slonje, R., Smith, P. K., & Frisé, A. (2013). The nature of cyberbullying, and strategies for prevention. *Computers in Human Behavior*, 29(1), 26-32. doi: 10.1016/j.chb.2012.05.024
- *Slovak, K., Crabbs, H., & Stryffeler, B. (2015). Perceptions and experiences of cyberbullying at a faith-based university. *Social Work & Christianity*, 42(2), 149-164.
- Smith, P. K., & Steffgen, G. (2013). The COST Action on cyberbullying: Developing an international network. *Annual Review of CyberTherapy and Telemedicine*, 11, 173-177.
- *Snyman, R., & Loh, J. (2015). Cyberbullying at work: The mediating role of optimism between cyberbullying and job outcomes. *Computers in Human Behavior*, 53, 161-168. doi: 10.1016/j.chb.2015.06.050
- Solberg, M., & Olweus, D. (2003). Prevalence estimation of school bullying with the Olweus Bully/Victim Questionnaire. *Aggressive Behavior*, 29, 239-268. doi: 10.1002/ab.10047
- Suzuki, K., Asaga, R., Sourander, A., Hoven, C. W., & Mandell, D. (2012). Cyberbullying and adolescent mental health. *International Journal of Adolescent Medicine and Health*, 24(1), 27-35. doi: 10.1515/ijamh.2012.005
- *Tang, W. Y., & Fox, J. (2016). Men's harassment behavior in online video games: Personality traits and game factors. *Aggressive Behavior*. doi: 10.1002/ab.21646
- *Tennant, J. E., Demaray, M. K., Coyle, S., & Malecki, C. K. (2015). The dangers of the web: Cybervictimization, depression, and social support in college students. *Computers in Human Behavior*, 50, 348-357. doi: 10.1016/j.chb.2015.04.014
- *Thompson, M. P., & Morrison, D. J. (2013). Prospective predictors of technology-based sexual coercion by college males. *Psychology of Violence*, 3(3), 233-246. doi: 10.1037/a0030904
- Tokunaga, R. S. (2010). Following you home from school: A critical review and synthesis of research on cyberbullying victimization. *Computers in Human Behavior*, 26(3), 277-287. doi: 10.1016/j.chb.2009.11.014
- *Tosun, N. (2016). Cyberbully and victim experiences of pre-service teachers. *European Journal of Contemporary Education*, 15(1), 136-146. doi: 10.13187/ejced.2016.15.136
- Vivolo-Kantor, A. M., Martell, B. N., Holland, K. M., & Westby, R. (2014). A systematic review and content analysis of bullying and cyber-bullying measurement strategies. *Aggression and Violent Behavior*, 19(4), 423-434. doi: 10.1016/j.avb.2014.06.008
- Walker, C., Sockman, B., & Koehn, S. (2011). An exploratory study of cyberbullying with undergraduate university students. *TechTrends*, 55(2), 31-38.
- Wang, J., Nansel, T. R., & Iannotti, R. J. (2011). Cyber and traditional bullying: Differential association with depression. *Journal of Adolescent Health*, 48(4), 415-417. doi: 10.1016/j.jadohealth.2010.07.012
- Weber, M., Ziegele, M., & Schnauber, A. (2013). Blaming the victim: the effects of extraversion and information disclosure on guilt attributions in cyberbullying. *Cyberpsychology, Behavior, and Social Networking*, 16(4), 254e259. doi: 10.1089/cyber.2012.0328
- *Wensley, K., & Campbell, M. (2012). Heterosexual and nonheterosexual young university students' involvement in traditional and cyber forms of bullying. *Cyberpsychology, Behavior, and Social Networking*, 15(12), 649-654. doi: 10.1089/cyber.2012.0132

- *Whittaker, E., & Kowalski, R. M. (2015). Cyberbullying via social media. *Journal of School Violence, 14*(1), 11-29. doi: 10.1080/15388220.2014.949377
- *Wolford-Clevenger, C., Zapor, H., Brasfield, H., Febres, J., Elmquist, J., Brem, M. (2016). An examination of the Partner Cyber Abuse Questionnaire in a college student sample. *Psychology of Violence, 6*(1), 156-162. doi: 10.1037/a0039442
- *Wozencroft, K., Campbell, M., Orel, A., Kimpton, M., & Leong, E. (2015). University students' intentions to report cyberbullying. *Australian Journal of Educational and Developmental Psychology, 15*, 1-12.
- *Wright, M. F. (2013). The relationship between young adults' beliefs about anonymity and subsequent cyber aggression. *Cyberpsychology, Behavior, and Social Networking, 16*(12), 858-862. doi: 10.1089/cyber.2013.0009
- *Wright, M. F. (2015). Emerging adults' coping strategies: Longitudinal linkages to their involvement in cyber aggression and cyber victimization. *International Journal of Cyber Behavior, Psychology and Learning, 5*(2), 1-14. doi: 10.4018/ijcbpl.2015040101
- *Wright, M. F., & Li, Y. (2012). Kicking the digital dog: A longitudinal investigation of young adults' victimization and cyber-displaced aggression. *Cyberpsychology, Behavior, and Social Networking, 15*(9), 448-454. doi: 10.1089/cyber.2012.0061
- *Wright, M. F., & Li, Y. (2013). Normative beliefs about aggression and cyber aggression among young adults: a longitudinal investigation. *Aggressive Behavior, 39*(3), 161-170. doi: 10.1002/ab.21470
- *Zerach, G. (2016). Pathological narcissism, cyberbullying victimization and offending among homosexual and heterosexual participants in online dating websites. *Computers in Human Behavior, 57*, 292-299. doi: 10.1016/j.chb.2015.12.038
- Zych, I., Ortega-Ruiz, R., & Del Rey, R. (2015). Systematic review of theoretical studies on bullying and cyberbullying: Facts, knowledge, prevention, and intervention. *Aggression and Violent Behavior, 23*, 1-21. doi: 10.1016/j.avb.2015.10.001

Fig. 1. Flow chart of the search process. The CINHALL PsycInfo, ERIC, Pubmed, Web of Science, and Medline electronic databases were searched. Exclusion criteria were by hand verified as correct at each step.

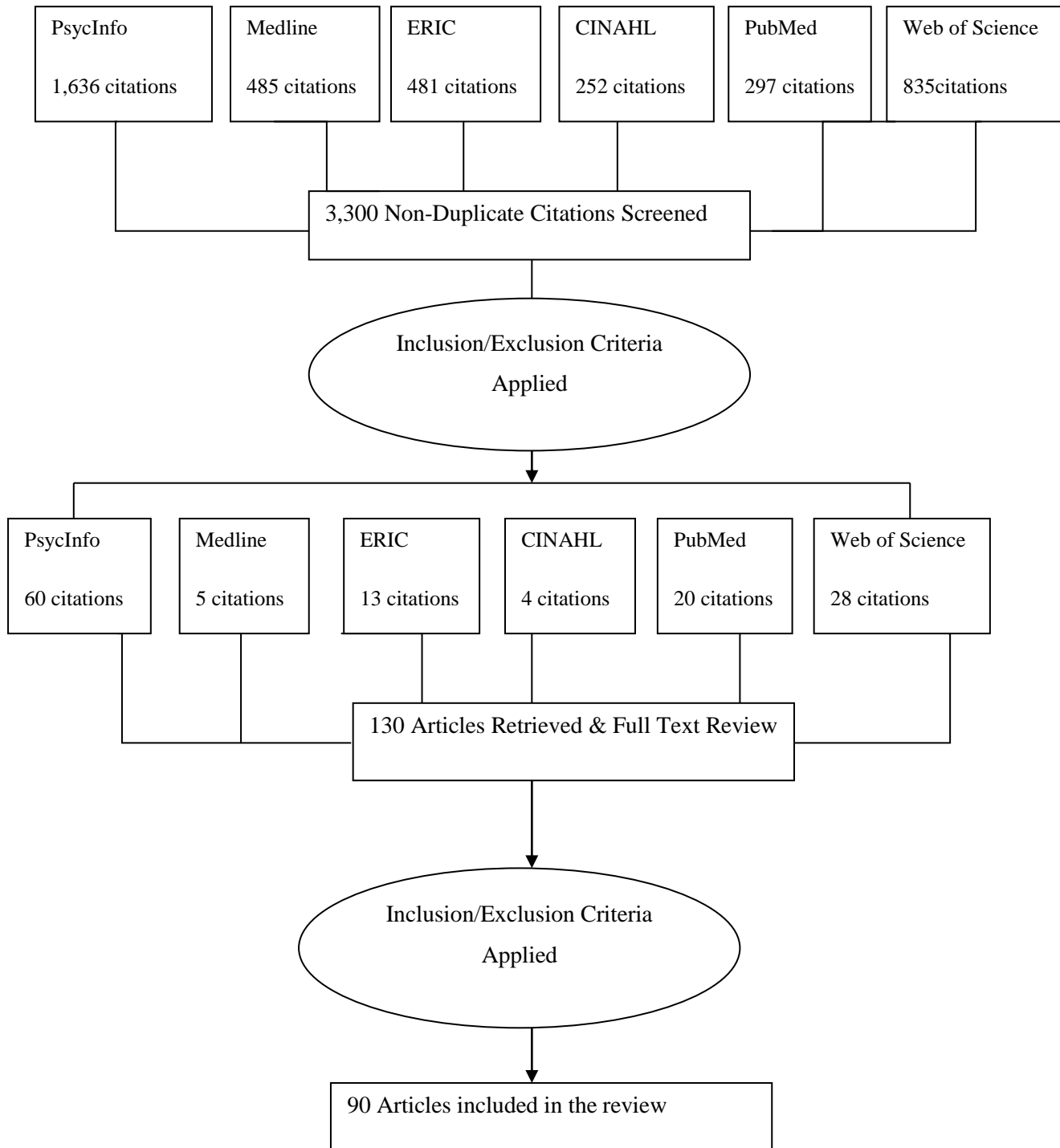


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