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Cyberbullying: Topics, strategies, and sex differences

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ABSTRACT

People say and do things with the capacity to hurt or emotionally injure each other, and as individuals continue to interact with each other in mediated contexts, these incidents increasingly occur online. The present study contributes to the growing literature on cyberbullying and answers calls for more descriptive research into online behavior by examining the content and nature of online bullying incidents. Over 400 recalled cyberbullying incidents that occurred on Facebook were obtained from witnesses/bystanders to the events. Inductive analyses revealed eleven cyberbullying strategies and twelve topics. The most frequently reported strategies included public and private comments, photographs, and status updates. The most frequently noted topics involved romantic relationships, friendships, sexual activity, and personal appearance. Moreover, women were more likely than men to be targeted by topics relating to sexual activity, and men were more likely to be bullied using messages linked to their sexual orientation or skills/talents. Results are framed in relation to previous research on traditional bullying and more recent studies on communication in online environments. The types of cyberbullying identified in the study can be used to assist practitioners and bystanders in offering support to victims.

Individuals are increasingly turning to technology to carry out interactions with peers, friends, romantic partners, and family members. For instance, 79% of American adults who are online have a Facebook account (Greenwood, Perrin, & Duggan, 2016). Moreover, 98% of Americans between the ages of 18 and 29 have a cellular phone, and 83% of that same demographic have a smartphone ("Mobile Technology Fact Sheet," 2014). As mediated interactions become increasingly ingrained into daily experiences, the potential for saying or doing something via technology with the capacity to hurt or emotionally damage someone increases, as well. Cyberbullying – or bullying that occurs via the use of technology – is one such behavior.

Kowalski, Giumetti, Schroeder, and Reese (2012) reported that 50% of college students in their sample had been bullied via technology, and 30% of victims say that they were targeted for the first time in college. Of those participants, 39% reported experiencing some form of victimization by a peer within the previous year (Kowalski et al., 2012). A recent nationwide survey revealed that 40% of adult Internet users have experienced online harassment, and 18-24 year-olds were the most likely to be targeted (Duggan et al., 2014). Cyberbullying in the college environment is a significant problem affecting a sizeable number of people (Baldasare, Bauman, Goldman, & Robie, 2012).

Despite the plethora of research on the predictors and effects of cyberbullying behavior (reviewed below), less in known about the nature of cyberbullying, particularly in the social networking site context. This investigation utilizes inductive analysis and quantitative analyses of descriptive data in order to explore the nature of cyberbullying on a popular social networking site platform – Facebook – as well as sex differences in the perpetration of cyberbullying.

1. Bullying and cyberbullying – outcomes, theoretical implications, and contexts

Victims experience a variety of immediate and long-term negative outcomes related to being bullied. Targets of bullying often feel hurt, embarrassed, sad, and angry as a result of being harassed (Shapiro, Baumeister, & Kessler, 1991). In a cross-national study of the relationship between bullying and psychosocial outcomes, bullied victims were more likely to be socially maladjusted and have a higher rate of health problems (Nansel, Craig, Overpeck, Saluja, & Ruan, 2004). Young adults who were bullied during

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childhood are often lonely and have lower self-esteem as adults than individuals who were not bullied (Tritt & Duncan, 1997). Finally, a meta-analysis of the effects of peer victimization on psychological adjustment found a strong relationship between victimization and depression, loneliness, and lower self-esteem (Hawker & Boulton, 2000).

Cyberbullying (as compared to traditional, offline bullying) is also associated with unique, largely negative outcomes. Being a victim of cyberbullying is correlated with an increased chance of Internet dependence, which refers to an individual's emotional attachment to the Internet (Vandebosch & Van Cleemput, 2009). Additionally, victims of online bullying are also often victims of traditional bullying, which means they are being targeted in multiple contexts (Vandebosch & Van Cleemput, 2009). These outcomes, while correlational in nature, suggest that bullying behavior may have long-lasting, negative effects on victims.

Although recent research has clarified the differences between cyberbullying and traditional bullying (Kowalski et al., 2012), motives for engaging in cyberbullying (Law, Shapka, Domene, Gagné, 2012), and parental involvement (Hinduja & Patchin, 2013), few studies have elucidated the nature and types of cyberbullying incidents. The present study explores both the topics and strategies of cyberbullying incidents witnessed by college students on Facebook.

Importantly, most research on cyberbullying and bullying has been relatively atheoretical (Monks et al., 2009; Tokunaga, 2010). Several theories have been put forth as explanations of victim and perpetrator behavior in settings involving traditional bullying, including evolutionary, social learning, and sociocultural approaches (Monks et al., 2009). In addition to advocating the use of theories such as these, Tokunaga (2010) calls on cyberbullying researchers to integrate newly established theories of new technology and media into their research. Thus, although the current exploratory study does not derive predictions from theory in a deductive fashion, findings are framed using existing theory to illustrate their contribution to the literature and to offer a better understanding of the results.

Previous research on cyberbullying has examined behavior across mediated contexts, such as email, text messaging, and websites (e.g., Kowalski & Limber, 2013). While people clearly access a variety of mediated contexts, Facebook is the most popular online social network in the United States: Seventy-nine percent of online adults use the site, 88% of 18–29 year olds use Facebook, and 76% of users report using the social networking site daily (Greenwood et al., 2016). Moreover, Facebook has tools for sending both synchronous and asynchronous, text- and photo-based, public and private messages. Thus, in the interest of broad applicability, the present study examined the nature of cyberbullying incidents on Facebook.

1.1. Defining cyberbullying

In order to describe cyberbullying, it is first necessary to define the concept. Research on cyberbullying has been plagued by definitional ambiguity (Tokunaga, 2010). One reason defining cyberbullying has been difficult (Slonje, Smith, & Frisén, 2013) is that connecting the common characteristics of in-person bullying to cyberbullying presents several challenges. The following paragraphs examine several key characteristics of traditional bullying, as well as caveats related to the definition of cyberbullying.

Randall (1997), when examining the impact of off-line bullying on adults, defined it as 'the aggressive behavior arising from the deliberate intent to cause physical or psychological distress to others' (p. 4). More specifically, bullying involves definitively negative behaviors designed to inflict harm. Bullying is a deliberate act and is usually interpreted by the victim as intentional, whereas the motivation of other hurtful behaviors, such as teasing, is often ambiguous (Mills & Carwile, 2009). Many bullying incidents are also enacted over several episodes (Espelage & Swearer, 2003; Olweus, 1993). Additionally, there is frequently a power differential between bully and victim, in which the victims are in a less powerful position and cannot defend themselves alone (Olweus, 1993).

Although the definition of cyberbullying is generally similar to that of traditional bullying (i.e., aggressive behaviors or negative actions designed to inflict harm or emotional injury on others; Tokunaga, 2010), there are several key differences. First, cyberbullying occurs via the use of an electronic device and, as a consequence, the context and location of bullying incidents vary widely. Rather than being confined to a specific co-located environment, cyberbullying perpetrators can target victims regardless of whether they are physically co-present (Patchin & Hinduja, 2006). Moreover, the repetitive aspect of traditional bullying takes a different form in cyberbullying (Slonje & Smith, 2008). Because messages and photos are often persistent online and can be saved or stored for viewing at a later time, a single message can have repeated effects. Lastly, the power differential that often characterizes traditional bullying (e.g., Olweus, 1993) is usually associated with physical strength or appearance. In online environments, where physical stature is less salient, this type of power differential holds less sway.

Based on the aforementioned distinctions between cyberbullying and offline bullying, an adapted version of the definitions derived from previous research by Tokunaga (2010) and Baldasare et al. (2012) was adopted. For the purposes of the current study, cyberbullying is conceived as a broad range of behaviors performed through electronic or digital media by individuals or groups that communicates hostile or aggressive messages intended to inflict harm or discomfort on others.

1.2. Types of cyberbullying incidents

Although extant research provides details concerning the definition, prevalence, and effects of cyberbullying, fewer studies offer basic information about the types of cyberbullying which occur. In particular, more work is needed that examines the unique role of technological affordances – such as anonymity and geographic distance – in order to better understand how the unique aspects of the online bullying context might affect the relationships stipulated in existing cyberbullying research (Tokunaga, 2010). Understanding the nature of cyberbullying incidents is important because different types of incidents may be associated with different outcomes. Whereas name-calling may be hurtful and damage a victim's self-esteem, threats to harm a victim's close relationships may create a pervasive sense of fear.

Studies of in-person bullying provide some information about distinctions that are likely to exist among various types of cyberbullying events. For instance, research has generally described in-person bullying using three overarching categories – direct physical aggression, direct verbal aggression, and indirect aggression (Rivers & Smith, 1994).

Direct physical aggression refers to behaviors such as hitting, kicking, punching, and pushing a victim. Direct verbal aggression is characterized by name calling, threatening, and aggressive arguing. Indirect aggression entails telling mean stories, spreading rumors, and social exclusion/ostracism (Rivers & Smith, 1994). Although some of the behaviors that make up these categories (e.g., spreading rumors) will manifest in cyberbullying, the lack of physical co-presence will undoubtedly constrain the frequency of others (e.g., direct physical aggression).

Studies examining cyberbullying, specifically, often categorize types of bullying based on the communication channel that is used.

For example, Smith et al. (2008) distinguished cyberbullying incidents based on whether they occurred via seven different types of mediated environments (e.g., email, mobile phone, instant messaging). Hinduja and Patchin (2010) and Wachs and Wolf (2011) used similar categories to characterize their data. While the differences among the communication channels used for cyberbullying are telling, they do not capture the qualities of social networking sites, where a number of cyberbullying incidents are likely to occur. More specifically, social networking sites allow for sending of both synchronous and asynchronous text-based messages (i.e., private messages, instant messages and chats), and can be accessed on a computer or mobile phone. These two qualities may affect the content of cyberbullying messages as well as outcomes linked to the messages.

Looking at the content of online harassment amongst adults, Duggan et al. (2014) had participants report on the frequency that they personally experienced and witnessed five different types of online harassment – being called offensive names, being physically threatened, being harassed for a sustained period of time, being stalked, being purposefully embarrassed, and being sexually harassed. Rivers and Noret (2010) conducted a five-year, longitudinal assessment of cyberbullying via email and text messaging amongst middle-school students. In examining their open-ended data, they found evidence for ten types of text/email bullying – threats of physical violence, abusive or hate-related, name calling (including homophobia), death threats, ending of a platonic relationship, sexual acts, demands, threats to damage existing relationships, threats to home/family, and menacing chain messages. Although these data were specific to text-based messages, they provide some insight into what cyberbullying behaviors might look like on social networking sites such as Facebook.

In short, although there is some research that has investigated the context, form, and types of cyberbullying and harassment, few studies have examined the nature of cyberbullying in online social networks, such as Facebook. Facebook is not only one of the most widely used social networks, it is a particularly rich context for study because it enables people to engage in a broad range of online behaviors. Participants can take advantage of the unique affordances of the medium (i.e., Treem & Leonardi, 2012) to carry out multiple tasks. Thus, any consideration of cyberbullying on Facebook should be broad enough to take into account bullying that may occur due to these affordances – such as the ability to remain anonymous, carry out public or private conversations, and post photos anonymously. Although Facebook is not by default an anonymous or pseudonymous platform, there are features which allow users to remain unidentified should they choose to do so. For instance, users can create fake accounts or use a friend's account. In addition, individuals are often not aware of who else is online at any given time, a form of visual anonymity which can lead to deindividuation. In order to ultimately test the effects of these affordances as suggested by Tokunaga (2010), research is needed to better describe the types of bullying happening online. In line with the call for more descriptive research focused on online behavior and communication (Parks, 2009), as well as Mao's (2014) suggestion that more qualitative research is needed in to supplement quantitative data on communication and technology use, we investigate the types of cyberbullying incidents that occur on Facebook in a college-aged sample.

RQ1: What types of cyberbullying incidents occur on Facebook?

1.3. Sex differences in victimization

Any differences in the types of cyberbullying incidents experienced by young people are likely to be influenced by another variable: participants' sex. Men and women differ in the extent to which they engage in traditional, in-person bullying – men are more likely to perpetrate bullying (Olweus & Limber, 2010). Moreover, men enact direct bullying (e.g., name calling, aggressive arguing) more often, and women are more likely to engage in indirect bullying (e.g., spreading rumors, ostracism) (Dilmac, 2009).

Studies examining sex differences in cyberbullying have reported inconsistent results. Yet, Kowalski and Limber (2007) found that girls are more likely to be cyberbullying victims than boys. Another study suggested that males are more likely to perpetrate cyberbullying, but females are more likely to be victimized (Sourander et al., 2010). Still other research has found minimal sex differences in cyberbullying perpetration and victimization (e.g., Ybarra & Mitchell, 2004). Two studies found sex differences in the communication channels used by men and women for cyberbullying. Hinduja and Patchin (2008) demonstrated that females were more likely than males to be targeted via email, and Slonje and Smith (2008) found that men were more likely to be targeted via text messaging than women.

In their recent nationwide survey, Duggan et al. (2014) found that women were more likely than men to experience more severe forms of online harassment, such as sexual harassment and stalking. Men were more likely to report being called offensive names and being purposefully embarrassed. Still, little research has examined differences in the nature of bullying experienced by males and females. Thus, we further explore sex differences in victimization on Facebook.

RQ2: How do men and women differ in the extent to which they are targeted using various cyberbullying strategies?

2. Method

2.1. Participants

Data were collected from undergraduate students enrolled in communication courses at a large southwestern university. Participants were recruited via an online advertisement and emails to instructors. Recruitment materials requested participants who had a Facebook account and had seen behavior 'in which someone you know was targeted by hurtful actions, behaviors, and/or messages on Facebook.' Eleven prospective participants could not recall such an incident, and thus were offered an alternative survey. All participants completed an informed consent form as part of the online survey and received course extra credit for their participation.

The sample included 265 participants, a majority of whom were female (n = 198, 75%). Respondents reported on two incidents. When reporting on the first incident (in which participants intervened), 199 participants (75.4%) reported on female victims. When reporting on the second incident (in which participants did not intervene), 188 participants (71.2%) reported on female victims. Respondents' ages ranged from 18 to 42 years ($M = 20.2$; $SD = 1.97$). Most of the participants were Caucasian ($n = 163$, 61.7%), followed by Hispanic ($n = 40$, 15.2%), Asian ($n = 27$, 10.2%), African-American ($n = 17$, 6.3%), other ($n = 7$, 2.7%), Middle Eastern ($n = 5$, 1.9%), and Native American ($n = 3$, 1.1%) ethnic origins. Respondents were told that their participation in the study was completely voluntary and that alternative opportunities for extra credit were available for those who could not or did not want to participate. One participant indicated that he or she responded incorrectly (i.e., he or she recalled the wrong type of event), so his or her data were not included in the analyses.

2.2. Procedure

The study utilized a retrospective self-report methodology, which has been employed in previous research on bullying (Rivers, 2001), bystander intervention in bullying (Oh & Hazler, 2009), and feelings of hurt (e.g., Vangelisti, Young, Carpenter-Theune, & Alexander, 2005). Participants completed an online survey. Similar to the studies cited above (e.g., Oh & Hazler, 2009; Rivers, 2001; Vangelisti et al., 2005), participants were offered a brief definition of cyberbullying (described below) and asked to recall two experiences in which someone they know was targeted on Facebook. Respondents were limited to recalling events that occurred on Facebook. This methodological choice was made for two reasons. First, the design of different technologies (e.g., Facebook versus text messaging) likely shapes the types of cyberbullying events that people experience. For instance, Facebook allows for the posting of photos whereas text messaging does not. Examining multiple technologies could confound the findings and limit the ability to draw broader conclusions about cyberbullying. Second, Facebook enables users to engage in a broad range of online behaviors, and thus is a rich context for exploring cyberbullying. Third, Facebook is the most widely used online social network. Over one billion people worldwide have a profile and access the site at least once a month (www.facebook.com). Hence, using Facebook as the context for the current study is likely to result in the broadest applicability of the results.

To account for the possibility of a selection bias (such that only people who had intervened in a past cyberbullying incident would participate in the study), participants were asked to recall two experiences – one instance in which they said or did something to the victim and/or perpetrator at some point after the event occurred, and one instance in which they did not say or do anything to the victim and/or perpetrator at any point after the event occurred. Participants were allowed to skip a section if they could not recall an event that fit the criteria. Thirty-eight participants could only recall one type of incident – 18 did not report on an incident in which they said or did something, and 20 did not report on an incident in which they did not say or do something. The sequence of the two prompts was counterbalanced to account for potential order effects.

Respondents were presented with a definition of cyberbullying which was slightly modified from the version offered by Baldasare et al. (2012) and instructions for completing the survey. Participants were told:

> Individuals often use technology in a way that is perceived as aggressive or threatening to another person. Please recall an event in which someone you know was targeted by such hurtful online messages or actions ON FACEBOOK. This event should be a time in which you either witnessed the hurtful event or were aware of the hurtful event soon after it occurred, and YOU SAID OR DID something to the victim or perpetrator at some point after the event occurred (incident 1) or YOU DID NOT SAY OR DO OR something to the victim and/or after the event occurred (incident 2). Please recall an event that meets the above criteria.

Similar to Vangelisti et al. (2005), participants were asked to describe the event in several formats. First they were told to describe the event in as much detail as possible. Respondents were then asked what happened that led up to the hurtful online messages or actions. Next, they described what they said or did following the incident. Finally, participants described the event in a script-like format (e.g., 'She said … '; 'They said …. ').

After describing the bullying episodes, participants completed several additional measures, including their experience with cyberbullying and electronic devices and the perceived hurtfulness of the incident. Several other measures were assessed and used in a separate study.

3. Results

Research Question 1 asked what types of cyberbullying incidents victims report. The research question was addressed via an inductive analysis of the participants' open-ended descriptions of cyberbullying (Bulmer, 1979). Participants described a total of 491 cyberbullying incidents. The lead author and a trained coder read open-ended responses and independently generated a list of categories to describe Facebook cyberbullying situations. After reading through the scenarios, the coders met and assessed the similarities between their lists. Similar categories were combined and relabeled. When they examined the category schemes, the lead author and coder determined that the cyberbullying instances could be characterized by two different sets of categories. More specifically, the reported incidents included information about the strategy used by the perpetrator as well as the content of the hurtful messages or behaviors associated with the incident. Therefore, the categories were separated into cyberbullying 'strategies' and 'topics.' The lists of categories were refined and exemplars of both strategies and topics were chosen (Tables 1 and 2).

Two independent, trained coders (different from the coders who conducted the aforementioned analysis) read through a randomly selected subset of 10% of the open-ended data and assigned a code to each response. Each coder assessed the responses and coded them with regards to both the strategy used by the perpetrator and the content of the hurtful message/behavior. Reliability between the coders was assessed using Cohen's Kappa because it accounts for chance agreement. For the cyberbullying strategies, reliability between the coders was moderate ($\kappa = 0.68$). For the topics, reliability was also moderate ($\kappa = 0.67$). After examining the codes and the responses, the lead author and the coders agreed that higher agreement could be achieved with the addition of several categories and further training. A 'video' category, which refers to the use of video clips as a bullying tactic, was added to the strategy coding scheme. Two topic categories were also added. A 'friendship' topic was added for instances in which a hurtful incident related to disagreements or hurtful issues within a friendship. Also, a 'skills/talents' topic was added for instances in which a victim was targeted based on a perceived lack of talent or intelligence. The coders analyzed an additional, random 10% of the open-ended responses. Reliability was higher for both the strategies ($\kappa = 0.76$) and topics ($\kappa = 0.73$), indicating substantial agreement (Landis & Koch, 1977). The coders and the lead author met to resolve disagreements, and the remaining data were divided evenly between the coders.

The results of the coding appear in Table 1 (strategies) and Table 2 (topics), and include frequencies for both the event in which participants reported intervening and the incident in which they did not intervene. Neither the percentage of reported strategies, χ^2 (156, $N = 230$) = 178.10, $p > 0.05$, nor the percentage of reported topics, χ^2 (169, $N = 230$) = 181.10, $p > 0.05$, differed based on whether the participant intervened or did not intervene.

Strategies. Table 1 displays the reported strategies and their frequencies. *Public comment*, in which individuals posted a comment or message on Facebook that was viewable by a broad audience, was the most frequently reported strategy. *Private comment*, in which individuals were targeted via private messages or chats, was the second most reported strategy, followed by the *photograph* strategy, in which individuals were harassed via the use of pictures, many of which were photos of the victim in embarrassing or compromising situations. Participants also reported *group bullying* when more than one perpetrator would harass a

Table 1
Cyberbullying strategies, frequencies, and examples.

	First Incident (Intervened) Frequency	%	Second Incident (Did Not Intervene) Frequency	%	Total %	Example
Strategies:						
1. Public comment	74	28.0	74	28.0	28.0	'Someone wrote a very mean and threatening message on my cousin's Facebook page.'
2. Private comment	37	14.0	31	11.7	12.9	'A guy messaged a friend of mine and told him to stop talking to his girl and that he could never really be with her because he was fat and ugly.'
3. Photograph	29	11.0	28	10.6	10.8	'A girl in my high school had a very embarrassing picture of her posted on Facebook. The picture was of her passed out on the floor at a party.'
4. Group Bullying	16	6.1	23	8.7	7.4	'My brother was targeted by a couple of young men on Facebook that took offense to his new group. They each of put up a couple of facebook statuses that expressed their disdain for the group.'
5. Arguments/Fights	12	4.5	23	8.7	6.6	'Two of my close friends got into an argument which carried over from an intense face to face argument into a public argument over facebook. They both said hurtful things that put the other person down.'
6. Status Update	18	6.8	16	6.1	6.5	'One of my good friends created a status targeting a girl she did not like.'
7. Fake Profile	13	4.9	7	2.7	3.8	'Someone made a fake Facebook account and sent messages to my friend pretending to be a boy with a crush on her.'
8. Online burn book	11	4.2	9	3.4	3.8	'… a group of "popular" girls created a page called The Burn Book and basically just tore into certain girls for different reasons. The profile was private, so you had to be added as a friend, but if you were on it, they made sure to add you so you could see what hurtful things were being said about you.'
9. Hacked account/ Identity theft	5	1.9	11	4.2	3.1	'A girl cheated on her boyfriend while studying abroad, so the boyfriend broke into her facebook account and told all of her friends what she did and called her a whore and slut.'
10. Anonymous perpetrator	4	1.5	5	1.9	1.7	'There is something called honesty box on facebook, which allows you to anonymously submit comments to someone else. My friend got one that said 'what were you wearing today, you looked like a homeless person."'
11. Video	2	0.8	2	0.8	0.8	'There was a girl that was raised in the same hometown as me and she starred in a dirty video. Another girl decided to post the link on facebook to make it known to others that she had done this.'
12. No strategy indicated	23	8.7	12	4.9	6.8	
13. Other	2	0.8	2	0.8	0.8	

victim. Some incidents involved the posting of a harassing *status update,* a text-based post that was broadcast to the profile owner's friends and specifically called out the victim. Also notable was the creation of *fake profiles* in which victims were mimicked or targeted using the faux account, *online burn books* which were Facebook pages created specifically to harass victims, and *hacking*, in which perpetrators accessed victims' account without their consent. Several participants also reported on *arguments and fights* that occurred via Facebook and that often devolved into name-calling. Finally, a few participants discussed taking advantage of the ability to be *anonymous* online to commit cyberbullying acts.

Topics. As shown above, perpetrators used a variety of strategies to target victims – but what was the topic of their cyberbullying? The most prevalent cyberbullying topic involved *romantic relationships*, in which individuals were targeted based on issues or events associated with their romantic relationships (e.g., breakups, cheating, and fights). *Friendship*-related incidents which involved issues with friends and roommates, was the second most reported topic. Other incidents related to *sexual activity* (e.g., posting nude photos or calling the victim a 'slut'), *skills and talents* (e.g., insulting the victim's intelligence or artistic skills), *weight,* and *personal appearance* (e.g., calling the victim 'ugly'). Also reported were incidents related to *sexual orientation* (e.g., 'outing' someone, or calling someone names associated with his or her sexual orientation), and *alcohol or drug use* (e.g., posting pictures of the victim using illicit substances). Also noted, albeit less frequently, were *political, religion, racial,* and *pregnancy* topics.

Sex differences. A series of chi-square tests of independence were performed to examine the relation between participant sex, victim sex, and cyberbullying topics and strategies. Although not addressed in a research question, the association between participant sex and reported victim sex was explored to provide additional detail on the sample. The relationship between participant sex and reported victim sex was significant, χ^2 (1, $N = 251$) = 59.52, $p < 0.001$, Cramer's V = 0.46. According to a post-hoc test using a Bonferroni correction, male participants were more likely to report on a male victim ($n = 35$) than female participants ($n = 19$). Female participants ($n = 170$) were more likely than male participants ($n = 27$) to report on a female victim. The relationship between victim sex and cyberbullying strategy was not significant, χ^2 (12, $N = 246$) = 7.80, $p = 0.80$, Cramer's V = 0.28.

The relationship between victim sex and topic was significant, χ^2 (12, $N = 246$) = 51.66, $p < 0.001$, Cramer's V = 0.46. According to the post-hoc test using a Bonferroni correction, female victims were more likely to be targeted using sexual activity topics than were men ($n_{female} = 25$, $n_{male} = 0$). Men were more frequently targeted using sexual orientation ($n_{female} = 2$, $n_{male} = 10$) and skills/talents ($n_{female} = 10$, $n_{male} = 13$) topics than were women.

4. Discussion

Although researchers have acknowledged that cyberbullying is pervasive and has largely negative outcomes, few studies have examined the types of cyberbullying incidents that occur online and on social networking sites such as Facebook, particularly amongst college students (Kowalski et al., 2012). Moreover, scholars have called for more descriptive research on online behavior and interactions (Parks, 2009). The current thematic investigation of cyberbullying incidents provides such descriptive data that can be used in future research. The inductive analysis and subsequent coding procedure revealed that cyberbullying incidents can be characterized by both the strategy used by the perpetrator and the topic of the incident.

Table 2
Cyberbullying topics, frequencies, and examples.

	First Incident (Intervened) Frequency	%	Second Incident (Did Not Intervene) Frequency	%	Total %	Example
Topics:						
1. Romantic Relationships	60	22.7	53	20.1	21.4	'One of my friends was having sex with one of my other friend's boyfriend. They were really good friends, but then the girl who was sleeping around posted pictures of her sitting on his lap for his girlfriend to see.'
2. Friendships	32	12.1	27	10.2	11.2	'One of my friends was upset with another one of our friends. The person was upset because the other guy had not done a favor for him that he had promised to do. To get back at him, he found a very embarrassing picture of my friend and posted it as his profile picture.'
3. Sexual Activity	25	9.5	27	10.2	9.9	'A few guys posted a naked picture of a girl I know on facebook for everybody to see and called her a slut.'
4. Skills/Talents	23	8.7	15	5.7	7.2	'I have a friend who is currently in art school, who posted some of her photography work online. One of her other friend's husbands who doesn't like her started telling her that all of her photos look "like crap.'"
5. Personal Appearance	17	6.4	32	12.1	9.3	'My friend posted pictures on Facebook of a trip she just went on. A girl classmate of ours commented on every picture critiquing what she looked like. Saying she was ugly and talked about how she didn't like the clothes she was wearing.'
6. Weight	13	4.9	14	5.3	5.1	'My sister's ex boyfriend, his friends and new current girlfriend were all making fun of my sister's weight on Facebook. The ex boyfriend's friends said something along the lines of "I'm glad you got rid of that whale of a tale.'"
7. Sexual Orientation	12	4.5	14	5.3	4.9	'After reuniting with friends and acquaintances from at least 10 years ago on Facebook, this person was a target of hurtful and judgmental emails on Facebook. Since she had known these people, she had come out as being a lesbian to her friends and family. Once these people on Facebook were given insight into her life, they expressed how much they did not approve of her coming out and said hateful things in these messages.'
8. Alcohol/Drugs	9	3.4	11	4.2	3.8	'A girl in my sorority posted pictures of another girl extremely intoxicated and nearly exposed to embarrass her.'
9. Pregnancy	5	1.9	3	1.1	1.5	'A guy posted a status that was making fun of a pregnant teen for giving advice to other teen girls. He was making fun of her because she was pregnant out of wedlock and thought she was in no position to offer advice since, to him, she had made poor decisions.'
10. Politics	4	1.5	4	1.5	1.5	'My friend was targeted for being politically conservative around the time of the presidential election. In general there were ignorant comments about conservatives and it was implied he was not as smart as people who were more liberal.'
11. Religion	4	1.5	2	0.8	1.2	'A friend posted a religious message around Christmas-time, and was challenged by people of dissenting beliefs. The argument quickly escalated from a disagreement, to personal attacks on the intelligence and common sense of my friend.
12. Racism	4	1.5	1	0.4	1.0	'They were targeted by being called the "n-word" by a male classmate.'
13. No topic indicated	26	9.8	25	9.5	9.7	
14. Other	12	4.5	17	6.4	5.5	

4.1. Strategies

The most frequently reported strategies employed in cyberbullying incidents were public comments and private comments. Importantly, these two activities constitute two of the most frequently reported activities of Facebook users in general (Hampton, Goulet, Rainie, & Purcell, 2011). Other common Facebook activities include posting status updates and photos (Hampton et al.), each of which were also noted as among the more frequently used strategies in the present study. These results indicate that most bullying on Facebook occurs via some of the more basic, standard features of the site.

Another salient feature of the cyberbullying strategies is that (other than private comments) the actions/messages are semi-public and viewable by the victim's online social network. The public nature of cyberbullying has several implications. First, the warranting perspective suggests that, because of the ability to selectively self-present in online environments, people forming impressions tend to put more weight on information they deem to be reliable (Walther & Parks, 2002). In online environments, this often results in relying on other-generated information, rather than self-generated information. For instance, individuals often form impressions based on the comments of a profile owner's friends more than on the profile owner him or herself (Walther, Van Der Heide, Hamel, & Shulman, 2009). In other words, the hurtful and often public comments and photographs which constitute cyberbullying are likely to influence other bystanders' perceptions of the cyberbullying victim. Moreover, research shows a negativity effect in online impression formation, such that negative comments are often weighed more heavily when forming impressions (Kellermann, 1989; Walther et al., 2009). Overall, these results suggest that the public nature of negative, other-generated cyberbullying incidents may have important implications for a victim's ability to manage impressions.

Other strategies that emerged from the current study included hacked account/identity theft, creating fake profiles, and creating

online 'burn books.' Some of these strategies, such as hacked account, mirror previous research on cyberbullying amongst high school students (Vandebosch & Van Cleemput, 2009). Other strategies, such as creating fake profiles, are related more closely to early research on anonymity which focused on the lack of cues linked to a communicator's identity in an online context. In these studies, online anonymity was often found to lead to more hostile behavior (e.g., Douglas, 2008; Douglas & McGarty, 2001). Anonymity is a multidimensional construct, and a communicators' level of anonymity can be arrayed along a continuum from fully identifiable to completely anonymous (Anonymous, 1998). Importantly, research has shown that the association between anonymity and antisocial behavior is complex. For instance, the social identity model of deindividuation effects (SIDE; Postmes, Spears, & Lea, 1998) suggests that anonymity can lead to a stricter adherence to contextual norms – such as the implicit rules for behavior on a website or in an online environment. Although maintaining anonymity or pseudonymity on Facebook is difficult due to identifying information associated with the site (e.g., individuals use their real names, photos are available), some perpetrators in the current study took control of someone else's account, or created a fake profile. Each of these activities are violations of the Facebook terms of service (https://www.facebook.com/legal/terms), but it appears that the site's rules do not always preclude perpetrators' use of the features. Other perpetrators employed third-party tools developed to ensure anonymity within Facebook – such as 'confessions pages' on which all posts are anonymous. Although using Facebook does not necessitate the use of these anonymous applications, perpetrators can still take advantage of the tools to attack others behind the cloak of anonymity. In concordance with SIDE, individuals may have engaged in these strategies because anonymity allowed them to adhere to implicit contextual norms (such as being aggressive online) rather than explicit norms (such as the Facebook rule against creating fake accounts).

The online burn book category included situations in which the perpetrator(s) would create a Facebook group or fan page with the intention of using the page to target the victim via the posting of photos, messages, videos, and other hurtful content. The victim often did not know the content had been posted. Rather, perpetrators created the page so their peers could comment and elaborate on the content, often without the knowledge of the victim. In the present study, the online burn books, also known as 'bash books' or 'slam pages,' were created using features of Facebook – such as fan pages or public/private groups – and were designed to target a specific victim or a group of victims. Evidence of similar sites outside of Facebook has been noted (Kowalski et al., 2012). Although these sites are often swiftly shut down (Kowlaksi et al.), the public nature of the burn book, as well as the fact that information on the page can be accessed and viewed without the victim's knowledge, have the potential to exacerbate the negative effects of online bullying incidents.

The strategies found in the present study can be loosely grouped into two of the categories of traditional bullying – direct verbal aggression and indirect aggression (Rivers & Smith, 1994). For instance, public and private comments to the victim are similar to direct verbal aggression, in that they often entailed name-calling and threats, and were sent directly to the victim. Other strategies, such as creating an online burn book or fake profile, were not sent to the victim directly, and thus are akin to indirect verbal aggression. Indirect verbal aggression often involves targeting the victim via a third-party (Rivers & Smith, 1994). In traditional bullying, perpetrators use other people to assist in bullying the victim. In cyberbullying, the mediated channel acts as a third-party. The features of the medium (i.e., the ability to create profiles and spoof the identity of the victim) are used to indirectly target the victim.

Not surprisingly, the results did not reveal the use of physical aggression in cyberbullying. This finding further supports the argument that differences in physical stature between bullies and victims, a key element of traditional bullying, is not a necessary element of cyberbullying.

4.2. Topics

The open-ended responses included a range of cyberbullying topics, as well. Overall, the types of cyberbullying topics somewhat overlapped with previous research on the topics of hurtful messages. For example, in a study of messages that resulted in hurt feelings, Vangelisti (1994) found evidence for nine hurtful message topics, including romantic relations, nonromantic relations, sexual behavior, physical appearance, abilities/intelligence, and ethnicities/religion. Although the proportions of topics differed in this study, evidence was found for each of these topics in online cyberbullying incidents, as well as a few additional themes.

The most frequently reported topic concerned romantic relationships. Individuals were often targeted due to a recently dissolved romantic relationship or due to conflict within a relationship. One study found that as many as 91% of cyberbullying incidents in late high school stemmed from relationship problems (Hoff & Mitchell, 2009). The current results revealed a slightly lower percentage, although several other categories (e.g., sexual activity) included examples which may have initially stemmed from a relational breakup. Recently, researchers have called for more investigation into the relational development process online, particularly on social networking sites (SNSs; Walther, 2011). Research has investigated the role of SNSs in the relational development process and has found that Facebook was primarily used as a method for uncertainty reduction early in relationships (Fox, Warber, & Makstaller, 2013). As relationships dissolve, individuals may also use Facebook to strategically navigate the breakup process (Tong, 2013). Unfortunately, their use of technology to disengage from their relationship may include targeting their ex-partners. Studies indicate that individuals who report undertaking Facebook behaviors associated with relationship dissolution are less adjusted to the breakup than individuals who do not report Facebook-related behaviors during their breakup (LeFebvre, Blackburn, & Brody, 2015), and the surveillance of an ex-partner's SNS profile inhibits personal growth following a breakup (Marshall, 2012). These studies point to the potentially deleterious effects of continued access to information about an ex-partner's life and daily activities following a breakup. Clearly, breakups often extend into the online realm, and may involve behaviors that may be categorized as cyberbullying.

Individuals also reported cyberbullying incidents associated with issues and problems in friendships. Some research explored the rules of friendships in online environments such as Facebook (Bryant & Marmo, 2012). One rule – negative friendship consequences – focused on how individuals' behavior on Facebook may negatively affect their friend or their friendship. Close friends were especially likely to endorse rules intended to limit such negative online behaviors. In doing so participants intended to protect the image and well-being of their close friends. Cyberbullying involving friendship is one example of the 'breaking' of this friendship rule.

Marwick and boyd (2014) argue that most teens and young adults conceptualize cyberbullying as 'drama.' According to these researchers, drama can occur between friends for a variety of reasons, and commonly boils over into the online context. Cyberbullying, as described by Marwick and boyd, is highly sexualized and heteronormative. The emphasis on sex parallels the frequency of sexual topics found in the present study. Similarly, the heteronormative tendency of males to act as aggressors reflects the higher

likelihood of female victims being targeted by sexual topics category as compared to male victims.

The sexual cyberbullying described in the current study included messages of a sexual nature (e.g., calling someone a 'slut') as well as distributing sexually explicit pictures via Facebook. The frequency with which this category was reported parallels the public attention given to the sexualized nature of cyberbullying and highlights its potentially drastic consequences. For example, a young woman in Steubenville, Ohio was sexually assaulted by several of her high school classmates, and pictures of the incident were posted online via SNSs and distributed via text messages (Macur & Schweber, 2012). Some research has explored the prevalence of and predictors of sexting, or engaging in computer-mediated sexual communication, which can include the sending of pictures, videos, or text-only messages of a sexual nature (Drouin, Vogel, Surbey, & Stills, 2013). Although few individuals report sending sexual pictures or videos via Facebook (Drouin et al.), pictures and videos sent via text message can easily be uploaded from a phone onto SNSs. Indeed, of the individuals who reported that their casual sexual partner had taken a nude or semi-nude photo of them, 53% of participants in the Drouin et al. study feared that the photos would be forwarded, and 15% of participants reported that photos of them had been forwarded in the past. As the pictures are forwarded, the likelihood that they are shared with a potential bully or perpetrator increases, and the perpetrators may share the images publicly via Facebook. The results of the present study underscore the prevalence of such incidents in a college-aged sample.

Finally, many participants reported incidents involving a victim's weight or personal appearance. Much research has found an association between overweight and obesity and victimization in traditional, in-person bullying episodes in middle-school and high-school aged students (e.g., Fox & Farrow, 2009; Janssen, Craig, Boyce, & Pickett, 2004). In the present study, individuals were targeted online due to their weight, as well. Many of these incidents occurred in response to pictures and photographs. As people use SNSs to strategically manage the way they present themselves (boyd & Ellison, 2007; Walther et al., 2009), victims may be especially concerned with hurtful actions and messages relating to their weight or appearance. On Facebook, individuals can choose to delete photos if they are unflattering, and they can choose to upload and highlight more flattering photographs. Personal appearance is an especially salient concern on Facebook and other SNSs, and is also a somewhat frequent topic of cyberbullying episodes.

4.3. Sex Differences

The current study's findings bolstered the extant research on the gendered nature of cyberbullying. Women were more likely than men to be targeted by topics relating to sex. Men were more likely to be bullied using messages linked to their sexual orientation (e.g., homophobic slurs) or skills/talents (e.g., insulting their artwork). Given the aforementioned relational nature of the bullying uncovered in the present study, the sex differences uncovered in this study comport with previous research into school-age bullying which finds that girls tend to be bullied using relational approaches (such as sex-related topics), whereas boy are more likely to be targeted overtly (i.e., insulting or harassing them based on individual qualities, such as their sexual orientation or skills; Espelage, Mebane, & Swearer, 2004).

Although many theoretical perspectives have been offered to explain differences in social behavior between men and women, social role theory (Eagly, 1987) provides a particularly useful framework for understanding the sex differences uncovered in the present study. Social role theory asserts that social differences between men and women largely emerge based on the differing roles they are expected to take in society. Men and women thus develop attributes and skills to better equip themselves for success in these roles (Eagly & Wood, 1999). Archer (2004) contends that social role theory would predict that, given societal expectations, men would engage in more physical aggression than women. Of course, given the non-physical nature of online environments such as Facebook, these differences might not be as important in cyberbullying contexts. However, Archer (2004) contends that, when gender is especially salient in a social context, sex differences should be more pronounced. Indeed, this prediction matches the finding in the present study that women were more likely to be targeted by sex-related topics. When a woman is targeted by these strategies, her gender is explicitly salient. In addition, the present study was carried out using an undergraduate student sample. Thus, in this sample, sex-related topics might be a stand-in for the indirect bullying seen in younger samples (e.g., Rivers & Smith, 1994). Overall, more research is needed to test whether social role theory or other perspectives, such as an evolutionary approach (e.g. Buss, 1995), can be used to explain sex differences in the cyberbullying context.

Some research indicates few sex differences in the overall prevalence of cyberbullying (e.g., Ybarra & Mitchell, 2004). Indeed, the current study found that men and women did not differ in their rates of victimization based on cyberbullying strategy. There were only sex differences in the use of three out of thirteen cyberbullying topics. While the nature of these differences is telling in that it indicates perceived vulnerabilities of men (sexual orientation and skills/talents) and women (sex), the relative frequency suggests that men and women have similar experiences with cyberbullying. This finding supports a metanalysis of cyberbullying frequency, which found that publication year moderated any sex differences in cyberbullying frequency (Barlett & Coyne, 2014). In other words, the more recent the study, the less likely researchers were to find sex differences. As technology use becomes normalized, people may experience cyberbullying similarly, regardless of sex.

4.4. Practical implications

Films such as *Bully* (Hirsch & Lowen, 2011) have spotlighted the prominence and wide-ranging influence of bullying and cyberbullying in the secondary school environment. Similarly, academic research on cyberbullying often examines middle-school and high school students (e.g., Kowalski & Limber, 2007; Marwick & boyd, 2010). However, previous research (e.g., Baldasare et al., 2012; Brody & Vangelisti, 2016; Kowalski et al., 2012) suggests that cyberbullying occurs fairly regularly amongst college-age students. The story of Tyler Clementi was extensively covered by major news outlets. Tyler – a college student – committed suicide after his roommate set up a webcam to broadcast video of Clementi kissing another man in their dorm room (Parker, 2012).

Because of the prominence of cyberbullying in the college demographic, training and intervention programs should be designed for college students and emerging adults. The 'topics' and 'strategies' identified in the present study can help educators clarify the often ambiguous nature of cyberbullying for individuals who might not consider the incidents within the purview of 'bullying.' Providing support to victims can attenuate the negative outcomes of bullying (Matsunaga, 2010). Thus, practitioners can use the data in this study to assist bystanders and witnesses in identifying and potentially intervening during cyberbullying incidents.

4.5. Limitations and future directions

Although the present study further elucidates the nature of

cyberbullying incidents, there are several limitations and opportunities for future research. First, the data were collected from bystanders (i.e., third parties) to cyberbullying incidents, rather than victims or perpetrators. This allowed for a broader range of participants who may not have been personally targeted. Thus, several factors – such as the hurtfulness and long-term effects of the bullying incident – could not be assessed. Future research should examine whether the topics or strategies of cyberbullying incidents reported from the perspective of victims and perpetrators differ from those recalled by the bystander. Veenstra, Lindenberg, Zijlstra, Winder, and Verhulst (2007) have proposed a dual-perspective theory to better understand how the relationship between bullies and victims can alter each individual's perspective on the nature of the incident. Researchers should extend this model to also better understand how bystanders and victims and/or bullies might have differing takes on the nature of the incident.

Moreover, the participants recalled incidents that may have occurred within the past two years. An online environments such as Facebook might allow for the collection of more recent data. In future studies, participants could be recruited at the start of a semester, and be told to complete the survey soon after they notice a cyberbullying incident occurring online.

5. Conclusion

The goal of the present study was twofold – collect data to provide a deeper understanding of the nature of cyberbullying incidents on Facebook, and examine sex differences in victimization. Ultimately, the results of this investigation contribute to the growing literature on cyberbullying by providing much-needed descriptive data on the phenomenon. In some cases, the data revealed that topics and strategies of cyberbullying are largely similar to more traditional bullying incidents that offline. Other results, however – such as the public comment, hacked account, and identity theft strategies – reveal the various ways the structure of online environments can shape harassment and bullying. These findings suggest broader questions relating to impression formation, anonymity, and the development of norms in online environments. In addition, the results revealed several sex differences – including the higher incident rate of sex-related topics among female participants. Such results are consistent with previous research and theory that note gender differences in how people undertake and are targeted by aggressive behavior. This information can be used and extended in future research on cyberbullying to further elucidate the nature of cyberbullying incidents and the effects those incidents have on both bullies and victims.

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