

Experiences of Online Harassment Among Emerging Adults: Emotional Reactions and the Mediating Role of Fear

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Megan Lindsay,¹ Jaime M. Booth,² Jill T. Messing,¹
and Jonel Thaller³

Abstract

Online harassment is a growing problem. Among college students, 43% report some experience receiving harassing messages. Previous research has shown negative online experiences to be typical among “emerging adults” (especially college students), and these incidents may be related to normative developmental behaviors, such as “on-again-off-again” romantic relationships. Study hypotheses were derived from previous research. Undergraduate student respondents ($N = 342$) were surveyed about their experiences with online harassment, emotional responses to online harassment, and their relationship with the sender of harassing messages. Findings suggest that online harassment is linked to issues of intimate partner violence. Those who were harassed by a partner reported feelings of depression and anxiety. Using a gendered framework to explore online harassment is warranted because young women who are 18 to 29 years of age have higher rates of

¹Arizona State University, Phoenix, AZ, USA

²University of Pittsburgh, PA, USA

³Ball State University, Muncie, IN, USA

Corresponding Author:

Megan Lindsay, School of Social Work, Arizona State University, Male Code 3920, 411 N. Central Ave., Suite 800, Phoenix, AZ 85004-0689, USA.

Email: Megan.Lindsay@asu.edu

intimate partner violence than other demographic groups. Findings suggest future research is needed to understand the time ordering of these issues.

Keywords

technology, emerging adults, dating relationships, online harassment, electronic aggression

Young adults (age 18–29) are the most active Internet users in the United States, with online social experiences—whether positive or negative—now a staple of everyday life (Duggan & Smith, 2014a). Emerging adulthood is a term used to distinguish the developmental phase of young people ages 18 to 29 in flux between young adulthood and adolescence (Arnett, 2000). During this time, young people focus energy on relationships with their peers and begin to search for greater intimacy, commonly through dating relationships (Arnett, 2000; Giordano, Manning, Longmore, & Flanigan, 2009). Experts who research the emerging adulthood population have called for research that explores the potential influence of technology on developmental tasks during this time of transition (Jensen & Arnett, 2012). In addition, the Centers for Disease Control (David-Ferdon & Hertz, 2009) has identified a need to learn more about “electronic aggression” (i.e., cyberbullying, cyberstalking, online harassment) as part of youth culture (Bennett, Guran, Ramos, & Margolyn, 2011; Finn, 2004; Lindsay & Krysik, 2012; Schenk & Fremouw, 2012). Table 1 provides an outline of the various terms and definitions used in the literature, and throughout this manuscript.

Reports of online victimization among college students have varied widely, ranging from 3.7% to 92% as a result of variations in operationalization and sampling (Alexy, Burgess, Baker, & Smoyak, 2005; Bennett et al., 2011). Studies found that between 8.6% and 52% of college students experienced *cyberbullying* (Dilmaç & Aydoğan, 2009; Schenk & Fremouw, 2012), and 3.7% to 40% of college students experienced *cyberstalking* (Alexy et al., 2005; Reyns, Henson, & Fisher, 2012). However, a replication study of *online harassment* found that victimization among college students had nearly tripled (increasing from 15% to 43%) over the past decade (Lindsay & Krysik, 2012). Prior research has found that college students who had been victims of cyberbullying were more likely to experience suicidal thoughts, sadness, frustration, and difficulty concentrating than those who had not (Schenk & Fremouw, 2012). Therefore, this study set out to understand college students’ experiences of online harassment; specifically, we examine the impact of fear on the emotional consequences (depression, anxiety) of online

Table 1. Varying Definitions of Online Abuse.

Study	Term	Definition
Bennet, Guran, Ramos, and Margolyn (2011)	Electronic aggression	Experiences including hostility, intrusiveness, humiliation, and exclusion
Finn (2004)	Online harassment	Repeated messages that threatened, insulted, or harassed
Schenk and Fremouw (2012)	Cyberbullying	Repeated intentional act done with the purpose of harming another person through technologies, such as email, cell phone messaging, social networking websites, chat-rooms, and instant messaging
Reyns, Henson, and Fisher (2012)	Cyberstalking	Repeated unwanted attempts at communication or contact, harassment, unwanted sexual advances, and threats of violence or physical harm
Glauber, Randel, and Picard (2007)	Technology abuse	Dating abuse behaviors using technology

harassment, taking into account the relationship context between the sender and receiver of such messages.

Research suggests that complex dating relationships and conflict among young people during dating have been exacerbated by the use of information communication technologies (ICTs) and social media platforms, making stalking and harassment easier for perpetrators of intimate partner abuse (Alvarez, 2012; Elphinston & Noller, 2011; Fox & Warber, 2013; Muise, Christofides, & Desmarais, 2009; Schenk & Fremouw, 2012; Southworth, Finn, Dawson, Fraser, & Tucker, 2007; Spercher, 2011). Dating relationships have become more entwined with an online presence. For example, use of social media can impact how and when a dating relationship becomes public (Papp, Danielewicz, & Cayemberg, 2012), the amount of personal information to which a dating partner has access (Elphinston & Noller, 2011; Muise et al., 2009; Tokunaga, 2011), and the ways in which peers participate in the public aspects of a dating relationship (Marwick, 2012; Spercher, 2011). Social media platforms, such as Facebook, encourage monitoring of partners and former partners even though the behavior itself is not always depicted as abuse (Lyndon, Bonds-Raacke, & Cratty, 2011; Marwick, 2012; Tokunaga, 2011). Thus, examinations of intimate partner abuse in the context of dating

relationships for young adults should take into account the complex role of technology and online social spaces in the ongoing dynamic of the relationship (Lyndon et al., 2011).

Social media and other ICTs have become an important social outlet during the emerging adulthood stage (ages 18-25), altering the expectations and social experiences of this generation of young adults when compared with previous generations (Duggan, 2014; Duggan & Smith, 2014b). Emerging adults are significantly more likely to use the Internet than any other adult group, with 98% of young adults reporting Internet usage in 2013 (Duggan & Smith, 2014a). In addition, 65% of young adults, more than any other age group, reported owning a smart phone that would allow them access to the Internet; of these, 77% reported using their phone to access the Internet (Duggan & Smith, 2014a). According to some estimates, approximately 97% of young adults also use text messaging daily, sending a median of 110 text messages per day (Duggan & Smith, 2014a).

These high rates of technology usage can be explained, at least partially, by one of the primary developmental tasks that define emerging adulthood, that is, participation in social activities that cultivate peer interactions and intimate relationships (Subrahmanyam, Reich, Waechter, & Espinoza, 2008). In the transition to emerging adulthood from the previous adolescent phase, one of the most salient shifts occurs in relation to social priorities; most notably, emerging adults tend to place a greater emphasis on dating relationships than do their younger peers (Barry, Madsen, Nelson, Carrol, & Badger, 2009). In this phase, marked by personal exploration and fluid commitments, romantic partners and social peers exert a significant influence on one's day-to-day life and future goals (Arnett, 2000; Barry et al., 2009). Accordingly, young adults must learn to develop healthy boundaries in personal relationships and will often do so through experimentation (Halpern-Meekin, Manning, Giordano, & Longmore, 2013a).

Given emerging adults' inexperience at intimate relationships, relational conflict is a common occurrence that includes poor communication, an inability to manage stress, feelings of jealousy, and escalating conflict that can lead to violence and other abusive behaviors (Halpern-Meekin, Manning, Giordano, & Longmore, 2013b). Women between the ages of 18 and 24 experience high rates of victimization, including their first experience of rape (37.4%), stalking (27.9%), and intimate partner violence (47.1%; Black et al., 2011). In addition to physical and sexual violence, abusive behavior in dating relationships has been defined as including peer pressure, humiliation, intimidation, minimizing or denying blame, threats, sexual coercion, and isolation/exclusion from others (Weisz & Black, 2009). In a survey of college students, women were found to perpetrate activities related to cyberstalking more

frequently than men (Alexy et al., 2005). In a similar survey, males reported more electronic victimization than females; however, given the definition used, it is unclear whether these incidents could be categorized as contentious rather than aggressive or causing fear (Bennett et al., 2011).

When college students were interviewed specifically about experiences of dating violence, including cyberharassment, online victimization was situated within broader dynamics of power and control within the relationship. For example, in focus groups with both male and female undergraduate students, individuals reported behaviors including surveillance and flooding someone's phone or account with messages in an attempt to control a partner (Melander, 2010). Qualitative studies about dating violence and use of ICTs describe how online abuse becomes an extension of violence that is already being perpetrated in the relationship (Draucker & Marstolf, 2010; Melander, 2010). Indeed, individuals experiencing online abuse from a dating partner tend to also report other types of abuse, including physical and sexual violence (Draucker & Marstolf, 2010; Southworth et al., 2007). Furthermore, individuals experiencing online victimization from a dating partner were significantly more likely to report feeling distress from the negative interaction when compared with reports of peer electronic aggression from non-dating partners (Bennett et al., 2011).

Schenk and Fremouw (2012) found that men and women responded differently to incidents of online victimization in dating relationships: Males turned to substances whereas females would avoid the use of technology. According to Bennett et al. (2011), males have their online spaces invaded more often than their female counterparts, yet female victims were more likely than men to feel distressed or to report experiencing levels of physical threat during online victimization experiences. In a study of self-identified victims of stalking, when asked about the impact of stalking, there were no differences found in mental health effects for online and offline victims for the following issues: fear, agoraphobia, anxiety, irritation, anger, suicidal thoughts, visited a health professional, distrust, purging, confusion, suicide attempts, depression, weakness, injuries, nausea, panic attacks, sleep disturbances, loss of/increased appetite, weight changes, headaches, self-harm, aggression, paranoia (Sheridan & Grant, 2007).

Despite the increased importance of ICTs among emerging adults, only a small number of studies have examined various forms of online victimization. Moreover, studies of online harassment have generally investigated the phenomenon as it relates to online social environments rather than focusing on the context of the harassment or the relationship between victim and harasser. This gap in the research has led to questions about whether online victimization stems primarily from peer-to-peer aggression, much like

bullying, or is associated with aggression toward an intimate partner, such as with dating violence or intimate partner abuse. Given the developmental phase of this age group, and the importance young adults place on dating relationships, a victim's relationship to the harasser may be a necessary distinction to accurately understand and intervene in this social issue. *Harassment* is operationally distinct from other forms of electronic aggression because it accounts for victim fear (Finn, 2004), and fear within an intimate relationship can indicate a more serious form of intimate partner violence (intimate terrorism) that often includes emotional, physical, and sexual abuse, and may result in negative mental health outcomes, physical injury, and death (Campbell et al., 2003; Johnson, 2008). Thus, the purpose of this study was to more fully understand young adult experiences of *online harassment*, specifically emotional reactions resulting from negative interactions with intimate partners. The following research questions were posed: (a) How does the relationship of the harasser to the victim (someone you don't know, someone you do know, or a significant other) relate to feelings of anxiety/depression as a result of online harassment? (b) How do feelings of anxiety/depression as a result of online harassment vary for men and women? (c) Does fear mediate the relationship between online harassment and feelings of anxiety/depression? Increased understanding of the impact of harassing messages on those who experience them can pinpoint which populations need the most immediate attention.

Method

The survey developed for this study was comprised of items from a previous online harassment study (Finn, 2004), as well as additional questions regarding the effects of harassment experiences. Request was granted for use of the original survey and conceptual construct of online harassment (Finn, 2004). Because Dr. Finn has previous research experience in the areas of technology and interpersonal violence, he was asked to review the final survey and to help improve the content validity of the measures. After consultation, five survey items from the original Finn survey were used to measure online harassment, and an additional nine items were added to further explore these experiences over the past 2 years. The five Finn items addressed frequency of online harassment experiences over a 2-year period of time and specified the relationship context between the sender and receiver of harassing messages. Four additional questions explored these experiences further. Respondents were asked if harassing communications continued after requesting that the sender stop contact. A follow-up question asking "Did the message [online interaction] make you fear for your safety?" was added to distinguish whether

the experience was harassment as opposed to other interactions (i.e., cyberbullying). To account for the impact of online harassment, respondents were asked additional two questions that varied by type of impact (depression or anxiety): "In the past 2 years have your online interactions ever left you feeling depressed/anxious?" Seven demographic questions surveyed respondents about age, sexual orientation, racial or ethnic group, living situation, and undergraduate major.

To test for readability, a draft of the survey was shared with undergraduate students. Students in a university dormitory cafeteria were approached and asked to read through the survey and provide feedback. A total of 11 undergraduates, including students from various racial and ethnic groups and both males and females, participated in this pilot phase. Within small groups of two to three students, these undergraduates were asked to discuss the survey via cognitive interviewing style. Individual students were asked to take notes as they reviewed the items, providing feedback about the presentation and language of the survey, ensuring the survey fit this age group. The survey was then revised to improve readability for the intended audience based on the pilot process. Once revisions were complete, the survey included 26 brief items, and 13 were included in the analysis for this study. The survey was administered online using Qualtrics, a software tool used for distribution and management of survey data, after IRB approval was obtained.

A previous research study replicated the online harassment portion of the Finn (2004) study to compare changes in the nature and rate of harassment (Lindsay & Krysik, 2012). The study specifically addressed new Internet trends, such as social media, smart phones or Personal Digital Assistants (PDA), and advanced filtering software. For findings related to increased rates of harassment, the influence of new technology trends, and undergraduate students' thoughts about prevention of online harassment, please see Lindsay and Krysik (2012).

Sample

The cross-sectional survey was administered to undergraduate students in introductory classes at a large, public university in the Southwestern region of the United States. Each instructor determined an appropriate amount for extra credit points and offered these points to students as an incentive for their participation. The research team distributed emails with participation information and reminders that were then forwarded from the instructor to students. These emails included a direct link to the survey, as well as three reminders sent out weekly announcing when the survey would close. A total of 420 students were provided the survey, with the final response rate of

81.4% ($n = 342$). The data were exported from Qualtrics to Stata for analysis.

Not all participants answered all questions on the survey. Five respondents did not provide their gender; of those that responded ($n = 337$), 24.6% were male and 75.4% were female. The average age of respondents ($n = 335$) was 21.8 years ($SD = 5.7$). Within the sample, there was racial/ethnic variation among those that responded to the question ($n = 339$): 53.1% White, 26% Latino, 7.4% Black, 5.9% multiracial, and 7.6% Other. Respondents ($n = 336$) predominantly (92.9%) reported their sexual orientation as heterosexual and represented 50 different undergraduate majors. In comparison with the larger student body, this sample was somewhat representative of the overall ethnic makeup, as the university enrollment summary for the same year reported an overall ethnic distribution of 61.5% White, 16.1% Hispanic, 4.9% African American, 1.9% American Indian, 5.6% Asian American, 0.13% Pacific Islander, and 1.2% multiracial (Enrollment Summary fall 2010). However, the sample was not representative of the university according to gender (50.9% female and 49.1% male).

Analytic Strategy

Using Stata 13.0, hierarchical multiple logistic regressions were conducted to assess both the independent effects of experiencing harassment and feeling fear on anxiety/depression, as well as the mediating or indirect effects. All models were estimated controlling for age and race. The full mediation model was only estimated for females because of the low number of men. Only three males reported feeling fear when harassed by someone they knew, two when harassed by someone they did not know, one when harassed by a significant other, and one when they had asked the harasser to stop. However, the main effect of harassment on anxiety/depression for men is presented. All analyses were run separately by relationship category. To test for mediation, the four-step process proposed by Baron and Kenny (1986) was used: Step (1) The relationship between being harassed and anxiety/depression was tested; Step (2) The relationship between experiencing harassment and fear was tested; (Step 3) The relationship between experiencing fear and anxiety/depression was tested; and Step (4) Both the experience of being harassed and feeling fear as a result were entered into the multiple regression equation. If the relationship between experiencing harassment and anxiety/depression decreases or becomes non-significant when the mediator (feeling fear as a result of experiencing harassment) is added to the model, then mediation is present. A Sobel (1982) test was used to determine if the decrease in anxiety/depression observed was statistically significant; if so, an indirect pathway is present.

Results

Across the entire sample, 34% of participants reported feeling anxious and 37% of participants reported feeling depressed as a result of an online interaction. These items were correlated at .47 but represent distinct constructs, with 47 respondents reporting anxiety and not depression and 39 respondents reporting depression and not anxiety. There were statistically significant differences between male and females reports of anxiety ($t = -2.27, p < .05$) and depression ($t = -2.27, p < .05$) as a result of online harassment. For the surveyed females, 40% reported feeling anxious and 38% reported feeling depressed. For the surveyed males, 27% reported feeling anxious and 24% reported feeling depressed. In the total sample, 32% of respondents reported being harassed by someone they knew at least once, 16% reported having ever been harassed by someone they did not know, 20% reported having been harassed by a significant other, and 28% reported being harassed after asking the person to stop (see Table 2). Females reported more frequent incidences of harassment than males, with 34% reporting being harassed at least once by someone they knew, 17% having been harassed by someone that they did not know, 21% reporting being harassed by a significant other, and 31% reporting being harassed after they had asked the person to stop. Females also reported feeling fear as a result more often than males.

For females, being harassed by someone they knew (odds ratio [OR] = 1.74, $p < .01$, 95% confidence interval [CI] = [1.35, 2.26]), by someone they did not know (OR = 1.51, $p < .001$, 95% CI = [1.09, 2.08]), by a significant other (OR = 1.71, $p < .001$, CI = [1.29, 2.29]), and by someone after they had asked them to stop (OR = 2.07, $p < .001$ CI = [1.40, 3.06]) all significantly predicted anxiety as a result of online interactions in the previous 2 years (see Table 3). The odds of experiencing anxiety increased 51% for every experience of being harassed by someone they did not know, 74% for every experience of being harassed by someone they knew, 71% for every experience of being harassed by a significant other, and 107% for every incident of harassment that occurred after asking the person to stop. For females, no significant relationship was found between incidences of harassment from someone they did not know and depression. However, a significant relationship was found between being harassed by someone they knew (OR = 1.42, $p < .01$, 95% CI = [1.10, 1.83]), a significant other (OR = 1.37, $p < .001$, 95% CI = [1.05, 1.79]), and by someone after they asked them to stop (OR = 1.69, $p < .001$, 95% CI = [1.16, 2.46]) and having experienced depression as a result of online interactions. For each incident of harassment perpetrated by someone they knew, a female was 42% more likely to report having felt depressed as a result of online interactions. When a significant other was the harasser,

Table 2. Frequencies of Having Received a Harassing Message and Experiencing Fear for the Full Sample and by Gender.

	Someone You Know	Someone You Don't Know	Significant Other	After You Told Them to Stop
	%	%	%	%
All (N = 342)				
Harassment				
Never	68.42	84.32	80.12	72.19
1-2 times	24.85	12.43	12.76	18.83
3-5 times	4.09	1.78	4.75	5.62
5+ times	2.63	1.48	2.37	3.55
Fear (yes)	7.02	4.39	3.80	4.97
Males (n = 83)^a				
Harassment				
Never	75.90	87.95	83.13	80.72
1-2 times	15.66	8.43	12.05	14.46
3-5 times	3.61	0.00	1.20	1.20
5+ times	4.82	3.61	3.61	3.61
Fear (yes)	3.61	2.40	1.20	1.20
Females (n = 254)^a				
Harassment				
Never	66.14	83.33	78.97	69.17
1-2 times	27.56	13.49	13.10	20.16
3-5 times	4.33	2.38	5.95	7.11
5+ times	1.97	0.79	1.98	3.56
Fear (yes)	8.27	5.12	4.72	6.30

^aFive respondents were excluded from the gender-specific analyses as they did not provide this information.

female respondents were 37% more likely to report feeling depressed, and when the harassment continued even after they had asked the harasser to stop, female respondents were 69% more likely to report depression.

For males, a significant relationship was found between the incidences of being harassed by a significant other and anxiety (OR = 1.99, $p < .01$, 95% CI = [1.17, 3.37]) and depression (OR = 2.33, $p < .01$, 95% CI = [1.25, 4.33]). In this sample, males were 99% more likely to have experienced anxiety as a result of online interactions when they also reported having been harassed by a significant other and 133% more likely to report depression as a result of online interactions for each experience of being harassed by a significant

Table 3. Mediation Model Predicting Anxiety Among the Female Sample (N = 253).

	Anxiety			Fear			Anxiety					
	Step 1			Step 2			Step 3			Step 4		
	B (SE)	OR [95% CI]	B (SE)	OR [95% CI]	B (SE)	OR [95% CI]	B (SE)	OR [95% CI]	B (SE)	OR [95% CI]	B (SE)	OR [95% CI]
Someone you don't know	0.41 (0.16) ^{**}	1.51 [1.09, 2.08]	2.20 (0.54) ^{***}	9.03 [3.16, 25.84]					0.31 (0.19)			1.36 [0.94, 1.97]
Fear					1.47 (0.69) [*]		4.33 [1.11, 16.82]		0.84 (0.79)			2.31 [0.49, 10.93]
Someone you know	0.55 (0.13) ^{***}	1.74 [1.35, 2.26]	1.70 (0.39) ^{***}	5.52 [2.56, 11.89]					0.54 (0.14) ^{***}			1.71 [1.29, 2.26]
Fear					1.10 (0.53) [*]		2.99 [1.06, 8.44]		0.20 (0.58)			1.23 [0.39, 3.85]
Significant other	0.54 (0.14) ^{***}	1.71 [1.29, 2.26]	1.52 (0.37) ^{***}	4.55 [2.21, 9.36]					0.52 (0.15) ^{***}			1.68 [1.24, 2.27]
Fear					1.23 (0.71) [†]		3.41 [0.84, 13.79]		0.23 (0.79)			1.26 [0.27, 5.89]
Asked to stop	0.72 (0.20) ^{***}	2.07 [1.40, 3.06]	1.95 (0.41) ^{***}	7.03 [3.16, 15.66]					0.58 (0.22) ^{**}			1.79 [1.17, 2.73]
Fear					2.08 (0.79) ^{**}		8.02 [1.71, 37.54]		1.24 (0.85)			3.47 [0.66, 18.25]

Note. All models were estimated controlling for race, age, time spent on social networking sites, and time spent on the Internet.

[†]p < .10. ^{*}p < .05. ^{**}p < .01. ^{***}p < .001.

other. Males were also more likely to experience depression as a result of online interactions when they had been harassed by someone they knew (OR = 1.57, $p < .05$, 95% CI = [.91, 2.40]) with each additional experience of depression increasing their reports of depression by 57% (see Table 4).

For females, having been harassed by someone they knew, someone they did not know, their significant other, and someone after they had asked them to stop all significantly increased the odds of reporting fear as a result of their experience (see Tables 3 and 5). Having experienced fear as a result of being harassed by someone they did not know (OR = 4.33, $p < .05$, 95% CI = [1.11, 16.82]), someone they knew (OR = 2.99, $p < .05$, 95% CI = [1.06, 8.44]), a significant other (OR = 3.41, $p < .10$, 95% CI = [.84, 13.79]), and someone after they had asked them to stop (OR = 8.02, $p < .01$, 95% CI = [1.71, 37.54]) were all significantly related to having felt anxiety as a result of an online experience. Females that reported experiencing fear as a result of being harassed by someone they did not know were 3 times more likely to report anxiety. Those that reported experiencing fear as a result of being harassed by someone they knew were 3 times more likely to report anxiety. If they reported fear as a result of being harassed by a significant other, they were 3.5 times more likely to experience anxiety, and if they experienced fear as a result of being harassed by someone after they were asked to stop, they were 8 times more likely to report having felt anxiety. Only experiencing fear as a result of being harassed by a significant other (OR = 7.72, $p < .05$, 95% CI = [1.55, 38.41]) and someone after they asked them to stop (OR = 6.55, $p < .01$, 95% CI = [1.69, 25.37]) were significantly related to having felt depressed as a result of an online experience. Individuals who reported experiencing fear as a result of being harassed by a significant other were almost 7 times more likely to report experiencing depression, and those who experienced fear as a result of being harassed by someone after they had asked them to stop were 5.5 times as likely to report having felt depressed.

Mediation Models

For females, having felt fear as a result of the harassment experience significantly partially mediated the relationship between being harassed by someone they did not know (Sobel test $t = 1.89$, $p < .05$), someone they knew (Sobel test $t = 1.87$, $p < .05$), and being harassed by someone after they had asked them to stop (Sobel test $t = 2.30$, $p < .05$) and feeling anxiety as a result of an online interaction. The relationship between being harassed by someone they did not know and anxiety was fully mediated by fear, resulting in a no significant main effect when fear was included in the model (OR = 2.13, *ns*, 95% CI = [.49, 10.93]). Fear partially mediated the relationship between

Table 4. Logistic Regression Predicting Anxiety and Depression by Relationship to Harasser for Males.

	Anxiety		Depression	
	B (SE)	OR [95% CI]	B (SE)	OR [95% CI]
Someone you don't know	-.02 (.30)	0.98 [0.54, 1.78]	.41 (.28)	1.51 [0.86, 2.64]
Someone you know	.28 (.25)	1.32 [8.1, 2.16]	.45 (.23)*	1.57 [0.91, 2.40]
Significant other	.69 (.27)**	1.99 [1.17, 3.37]	.85 (.32)**	2.33 [1.25, 4.33]
Asked to stop	.28 (.41)	1.32 [0.59, 2.95]	.20 (.37)	1.22 [0.59, 2.52]

Note. All models were estimated controlling for race, age, time spent on social networking sites, and time spent on the Internet.
[†] $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 5. Mediation Model Predicting Depression Among the Female Sample (N = 254).

	Depression			Fear			Depression					
	Step 1			Step 2			Step 3			Step 4		
	B (SE)	OR [95% CI]	B (SE)	OR [95% CI]	B (SE)	OR [95% CI]	B (SE)	OR [95% CI]	B (SE)	OR [95% CI]		
Someone you don't know	0.08 (.16)	1.09 [0.80, 1.49]	2.20 (.54) ^{***}	9.03 [3.16, 25.84]			0.10 (.19)	1.11 [0.77, 1.61]				
Fear					0.09 (.62)	1.09 [0.32, 3.71]	-0.12 (.74)	0.88 [0.21, 3.77]				
Someone you know	0.35 (.13) ^{**}	1.42 [1.10, 1.83]	1.70 (.39) ^{***}	5.52 [2.56, 11.89]			0.37 (.14) [*]	1.44 [1.09, 1.91]				
Fear					0.45 (.51)	1.58 [0.58, 4.31]	-0.17 (.57)	0.85 [0.28, 2.57]				
Significant other	0.31 (.14) [*]	1.37 [1.05, 1.79]	1.52 (.37) ^{***}	4.55 [2.21, 9.36]			0.20 (.15)	1.22 [0.91, 1.63]				
Fear					2.04 (.82) [*]	7.72 [1.55, 38.41]	1.71 (.87) [*]	5.54 [1.02, 30.35]				
Asked to stop	0.52 (.19) ^{***}	1.69 [1.16, 2.46]	1.95 (.41) ^{***}	7.03 [3.16, 15.66]			0.35 (.21)	1.41 [0.93, 2.14]				
Fear					1.87 (.69) ^{**}	6.55 [1.69, 25.37]	1.39 (.75) [†]	4.00 [0.91, 17.54]				

Note. All models were estimated controlling for race, age, time spent on social networking sites, and time spent on the Internet.

†p < .10. *p < .05. **p < .01. ***p < .001.

having been harassed by a significant other (OR = 1.68, $p < .001$, 95% CI = [1.24, 2.27]) and someone after they had told the harasser to stop (OR = 1.79, $p < .001$, 95% CI = [1.17, 2.73]) and anxiety, with the betas for the relationship decreasing but remaining significant after fear was entered into the model. For females, experiencing fear as a result of being harassed by a significant other (Sobel test $t = 2.13$, $p < .05$) and by someone after they were asked to stop (Sobel test $t = 2.35$, $p < .05$) fully mediated the relationship between being harassed and having experienced depression as a result of an online interaction, with the main effect becoming non-significant when fear was included in the model (see Table 3).

Discussion

These findings represent a unique contribution to the literature by demonstrating that the emotional impact of harassment is related to gender and the relationship between the sender and receiver of harassing messages. For young women in particular, online harassment is associated with experiences of fear. Thus, given the potential for eliciting fear and distress, online harassment can be considered a manifestation of abuse, particularly when it occurs within the context of a current or past intimate or dating relationship. Emerging adults are at especially high risk for relationship violence (Black et al., 2011), and their high use of ICTs makes them vulnerable to stalking and harassment through mediated communication. Examining these findings through a gendered framework takes into account the specific vulnerabilities of emerging adult women, as they are more likely to be controlled, injured, and killed by an intimate partner (Graham-Kevan & Archer, 2008; Reed, Raj, Miller, & Silverman, 2010; Stark, 2007).

Both women and men reported increased feelings of anxiety and depression when harassed online by a significant other. However, only women reported that they experienced fear as a result of this online harassment. The association between reported online harassment and fear indicates that these communications may have occurred as part of an ongoing abusive relationship. Technology provides a perpetrator of abuse with additional access to the victim. The perpetrator can use technology to monitor a partner's whereabouts, be in constant communication, and send abusive messages, and this increased access may exacerbate feelings of powerlessness for a victim (Southworth et al., 2007). Women's experience of fear partially mediated their reports of anxiety and fully mediated their reports of depression when the harasser was a significant other. Thus, in an intimate relationship, women who are afraid of their harasser are more likely to experience the measured mental health effects. This evidence suggests that women may have concerns about online conflicts escalating and resulting in physical harm from an intimate

partner. Intimate partner violence was not measured in this study; however, given that previous research has found associations between intimate partner violence and fear as well as intimate partner violence and mental health consequences (e.g., Johnson, 2008), it is possible that this unmeasured variable is the underlying cause for the associations seen here. Because women are most likely to experience intimate partner violence during emerging adulthood, future research regarding negative online experiences should examine the relationship between the victim and perpetrator and whether there is a history of violence or abuse when an intimate relationship is involved.

Female victims also experienced fear when the harasser was a stranger, someone known, or when they had asked the harasser to stop. Feeling fear fully mediated reports of anxiety when the harasser was not known or asked to stop, and only partially mediated reports of anxiety when the harasser was known. Women's fear mediated the relationship between online harassment and depression when the victim had asked the harasser to stop. On-again-off-again relationships are common in emerging adulthood, as the importance of other developmental tasks related to personal identity during this period may hinder their capacity to commit to an intimate dating partner (Halpern-Meehin et al., 2013b). It is possible that reports of harassment by someone known could include harassment by a previous partner or someone with whom the participant has a history of break-ups and make-ups.

Women's interpretations of online messages as threatening and something to be afraid of, regardless of the sender, may also be a function of their status as women in society. For a woman who has experienced violence, online harassment may trigger fear related to a particular perpetrator or experience. For women who have not experienced violence, the online harassment experience may make them feel vulnerable in a different way than men due to the history of violence against women in the larger social context. For this reason, experiences of online harassment should not be considered separate from other forms of violence against women, but rather related to experiences of gender-based violence across larger social structures. Alvarez (2012) discusses at length the issue of categorizing negative online incidents among adolescents as cyberbullying, claiming that most cyberbullying accounts are mislabeled and actually stem from dating violence. In addition, online harassment for young women in many cases has been linked to "slut shaming" and the public humiliation of adolescent girls' sexuality (Press, 2011). Gendered frameworks recognize that men experience issues of intimate partner violence, but consider women a priority based on higher rates, additional health and mental health impact, and levels of danger for women (Reed et al., 2010). The findings in this study are another example of how women experience more urgency and perceived danger as a result of harassment experiences.

Also of interest, men in this study reported harassing online experiences and experiencing both anxiety and depression as a result of online interactions. For men, harassment experienced from someone they knew and significant others were significantly related to reporting depression as a result of online experiences; however, these emotions could not be explained by fear. This suggests that the mechanism through which harassment impacts emotional reactions in men may differ from women. The harassing experience may be upsetting without posing a perceived threat of bodily harm—a difference that may be explained by gender difference in power and position in society. This potential dynamic is also reflected in the finding that a relationship was only noted between harassment and anxiety for those that had reported being harassed by a significant other. It is possible that feelings of anxiety arise in reaction to a threat of abandonment or the termination of the relationship rather than a threat of physical violence. Although the experience of men may not be characterized as “harassment” due to the absence of fear, it is important to note that these reported experiences among men were related to negative emotional reactions. The report of emotional reactions runs counter to cultural norms of behavior for men, and online harassment for men may be particularly distressing even if it occurs in the absence of fear.

The overlap between incidents of stalking, domestic violence, and the use of technology has been noted in previous research (Southworth et al., 2007). When considering online abuse as an aspect of intimate partner violence, using a gendered framework allows consideration of the historical context of women’s experience. Connecting these experiences to intimate partner violence and violence against women may assist with understanding women’s reports of fear. Rather than considering online harassment a separate experience from other forms of abuse, police, lawmakers, and those in the helping professions can be briefed about the ways in which negative online experiences may be an extension of ongoing relationship conflict and abuse.

Limitations and Methodological Issues

The findings in this study suggest online harassment is a serious issue for emerging adults. However, major limitations of this study include the use of a convenience sample, retrospective data, and the broad measurement of reactions to online interaction. This study did not clarify the timing of the harassment or whether the harassment initially took place during an offline conflict. In addition, the data used in this study came from a cross-sectional survey administered to university students. Although causal ordering was hypothesized in the mediation analysis, these findings should be interpreted with caution, as all constructs were measured at the same time. Future research should consider the use of longitudinal

data. The sample represented a range of majors and different demographic groups; however, the findings from this study may not generalize to other college student populations. Thus, future research should consider the inclusion of emerging adults not attending college. In addition, the information gathered about the emotional reaction of participants was limited because survey questions asked them to recall 2 years and were single item measures. Given these limitations, findings have limited applicability to the general emerging adult population, though future research can improve on this study by drawing a random sample and incorporating a similar analysis plan that includes longitudinal data.

The majority of participants in this study were female. The underrepresentation of males may have inhibited interpretation of the data for college-aged men. For example, it may be that the larger number of women in the study provided the statistical power to find associations that we did not have the power to detect in the male sample. Although the study was anonymous, it may also be that men are more reluctant to admit feeling fear or negative mental health effects. This research provided no information on the content of online messages. Definitions of harassment or perceptions of what constitute harassment may be different for young men and young women. Finally, this research did not provide nuanced information on the gender differences observed. Because online social life is based on subjective interactions and interpretations (Floridi, 2010), future research should use qualitative approaches to examine the different subjective experiences of fear and distress related to online harassment for both men and women.

Conclusion

Previous research studies have demonstrated the ways in which ICTs are used during times of relationship conflict (Draucker & Marstolf, 2010; Glauber, Randel, & Picard, 2007). Although issues of harassment, stalking, and abuse should be considered within relationship context, their level of impact on the dynamic of a particular type of relationship remains unclear. Some studies indicate that continued interactions with a former partner are typical for youth today; whether this amounts to stalking or harassment is an important consideration (Marwick, 2012; Weisskirch & Delevi, 2012). Relationships that have already established healthy and open communication patterns avoid the susceptibility of miscommunication that can be brought on by ICTs. However, considering that emerging adults are in the early stages of a life-long process of learning about intimacy and conflict, communication in relationships may already be unstable. When ICTs are taken up as a part of relationship practices, it is possible that technology increases conflict through increased miscommunication. It is, however, important to differentiate between communications that indicate conflict and communications that indicate

abuse. When a relationship is abusive, communication and exchanges over ICTs take on an abusive nature (Draucker & Marstolf, 2010). Those in abusive relationships may also find that ICTs provide new means for harm, and future studies should explore the impact of this rapidly changing technology on abusive tactics in relationships. Finally, to learn more about the role technology plays in relationship conflict, future research should address various manifestations of conflict depending upon the medium of communication.

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Author Biographies

Megan Lindsay is a PhD candidate at Arizona State University; her research focuses on the use of information communication technology and the impact of mediated spaces on human development. Her work has primarily examined dating relationships and how new ways of relating and interacting between partners through the use of ICTs impacts individuals.

Jaime M. Booth is an assistant professor in the School of Social Work at the University of Pittsburgh. Her research focuses on the role of context and identity in the stress process, and the impact of differential stress experiences on health disparities in minority populations with the goal of identifying protective factors.

Jill T. Messing, MSW, PhD, is an associate professor in the School of Social Work at Arizona State University. Her interest areas are intimate partner violence, domestic homicide/femicide, risk assessment, criminal justice-social service collaborations, and evidence-based practice.

Jonel Thaller is an assistant professor of social work at Ball State University. Her research interests are intimate partner violence, reproductive coercion, and media representations of gendered violence. She has worked as a research assistant on Project Connect, a clinic-based intervention for IPV and reproductive coercion.