Claire Burke Draucker, RN, PhD, and Donna S. Martsolf, RN, PhD

PROBLEM: Adolescent dating violence and electronic aggression are significant public health problems. The purpose of this study was to (a) identify ways in which technology is used in dating violence and (b) present examples of dating violence in which *electronic aggression played a salient role.* **METHODS**: The data set included the transcribed narratives of 56 young adults who had described their adolescent dating violence experiences for an on going study. FINDINGS: Eight ways in which technology is used in dating violence were identified using qualitative descriptive methods. **CONCLUSIONS:** The findings indicate that electronic communication technology influences dating violence by redefining boundaries between dating partners. Search terms: Adolescents, dating violence, electronic communication technology

doi: 10.1111/j.1744-6171.2010.00235.x © 2010 Wiley Periodicals, Inc.

JCAPN Volume 23, Number 3, August, 2010

Claire Burke Draucker, RN, PhD, is Distinguished Professor; Donna S. Martsolf, RN, PhD is Professor, Kent State University, Hudson, Ohio, USA.

 ${
m A}$ dolescent dating violence is a serious and underreported public health problem (Centers for Disease Control and Prevention [CDC], 2009). Dating violence is defined as physical, sexual, or psychological/emotional violence within a dating relationship (CDC, 2009). Approximately 10% of students experience physical dating violence and 25% report verbal, physical, emotional, or sexual dating violence each year in the United States (CDC, 2009). An international study of university students in 32 nations revealed that about one third of women and men surveyed were assaulted by a dating partner in the previous 12 months (Straus, 2008). A study of seven multiethnic high schools in the United States documented that approximately 30% of girls and boys were the recipients of physical aggression by current or recent dating partners (O'Leary, Slep, Avery-Leaf, & Cascardi, 2008). Health-related correlates of dating violence include injury, suicide attempts, substance abuse, unhealthy sexual behaviors, emotional distress, and disruptions in self-image (CDC, 2009; Howard, Wang, & Yan, 2008; O'Leary et al., 2008).

The explosion of electronic technology (e.g., the Internet, cellular telephones, social networking sites, personal data assistants) has created a new milieu for social interaction. Young people have eagerly embraced these new technologies for communication. A 2006 telephone survey was conducted with a nationally representative sample of 935 adolescents, aged 12-17, in the United States. Ninety-three percent were Internet-users (Lenhart & Madden, 2007); 61% of this group used the Internet daily, and 34% used it multiple times a day. A 2007–2008 telephone survey of a nationally representative sample of 1,102 adolescents, aged 12-17, in the United States found that 71% were cell phone owners; 94% of this group used their cell phones to call friends and 76% to send text messages. Thirty-eight percent of the teens sent text messages, 24% sent instant messages, and 16% sent e-mails each day (Lenhart, 2009).

Experts have questioned the influence of electronic technology on adolescent social development. Extending the theoretical framework of Hill (1983), which posits that the key tasks of adolescence are developing identity, autonomy,

Journal of Child and Adolescent Psychiatric Nursing, Volume 23, Number 3, pp. 133–142

intimacy, and sexuality, Subrahmanyam and Greenfield (2008) propose that electronic communication technology provides a context within which adolescents establish interpersonal connections and construct identity. They argue that electronic communication technologies influence the social development of adolescents in several ways: interpersonal communications are depersonalized because adolescents now conduct a higher proportion of communication electronically rather than face-to-face or voice-to-voice, their social networks are expanded, interest groups with common characteristics are united, and the anonymity of the Internet has a disinhibiting effect on sexual and racist behavior. In regards to identity development, Subrahmanyam and Greenfield suggest that evidence is mixed as to whether adolescents use the Internet for pretense in the service of identity development, but do seem to use the Internet to practice self-disclosure and self-presentation.

While communication technologies provide many educational, recreational, and development benefits, they also present risks for young people. Electronic forms of communication are increasingly used to perpetrate aggression against acquaintances, friends, or romantic partners (David-Ferdon & Hertz, 2007). Electronic aggression (EA) among youth is considered a serious emerging public health concern (David-Ferdon & Hertz, 2007). EA is defined as "any type of harassment or bullying, including teasing, telling lies, making fun of, making rude or mean comments, spreading of rumors, or making threatening or aggressive comments, that occurs through e-mail, a chat room, instant messaging, a Web site, or text messaging" (David-Ferdon & Hertz, 2007, p. S2). There is no standard operational definition of EA and the time frame specified in surveys has varied (e.g., within the past couple of months, the past year, lifetime). Thus, estimates of the prevalence of electronic aggression among youth have varied from 9% to 34% (victimization) and from 4% to 21% (perpetration) (David-Ferdon & Hertz, 2007). Indications are, however, that the incidence of EA among youth is rising rapidly; between 2000 and 2005, a 50% increase in online harassment was reported (Mitchell, Wolak, & Finkelhor, 2007). EA, like other forms of youth violence, is linked with a number of negative psychosocial correlates (David-Ferdon & Hertz, 2007). For perpetrators, EA is associated with poor caregiver-child relationships, substance abuse, interpersonal victimization, delinquency, depressive symptomatology, and school problems (Ybarra & Mitchell, 2004). For victims, EA is associated with social anxiety, depression, the online harassment of others, interpersonal victimization, social and behavioral problems, and school problems (e.g., skipping school, detentions/suspensions) (Hinduja & Patchin, 2007; Juvonen & Gross, 2008; Ybarra, Diener-West, & Leaf, 2007; Ybarra, Mitchell, Wolak, & Finkelhor, 2006).

Despite the call for additional research on adolescent dating violence and electronic aggression in the United States (David-Ferdon & Hertz, 2007; National Institute of Justice [NIJ], 2008; National Institutes of Health [NIH], 2009), little is known about the overlap of these forms of interpersonal violence (IPV). For example, no studies have described how adolescents use technology in the course of dating violence. Given the burgeoning use of communication technologies, inquiry related to the domains of adolescent dating violence can be compromised if technology is not considered. For example, researchers interested in spatial patterns of IPV, that is, "how violence is distributed across actors' routine activities and life space" (Wilkinson & Hamerschlag, 2005, p. 349), have been concerned traditionally with whether the violence occurred in or near a residence or in public. The Internet, however, provides a new spatial area within which violence can occur (i.e., cyberspace). Although research on the role of third parties and bystanders in the unfolding of aggressive events has been conducted (Wilkinson & Hamerschlag, 2005), the third party may be the unlimited and anonymous audience on social networking sites. The permanency of computer-based messages, such as insulting, embarrassing, or demeaning postings on a website, necessitates new ways of conceptualizing the aftermath of violent events (Hinduja & Patchin, 2007). Therefore, a greater understanding, of the cooccurrence of adolescent dating violence and electronic aggression is needed. The purpose of this study is to (a) identify ways in which technology is used in the adolescent dating violence and (b) present examples of dating violence in which electronic aggression played a particularly salient role.

The Parent Project

An on going qualitative study entitled "Adolescent dating violence: Development of a theoretical framework" (referred to as the parent project) provided the data for this study. The purpose of the parent project is to develop a theoretical framework that describes, explains, and predicts how dating violence unfolds in adolescence.

The purpose of the parent project is to develop a theoretical framework that describes, explains, and predicts how dating violence unfolds in adolescence.

The first 56 individuals who participated in the parent project constituted the sample for the study reported here.

Participants were recruited through public announcements. After obtaining Institutional Review Board approval from Kent State University, women and men aged 18-21 who had experienced dating violence as adolescents were recruited from nine socioeconomically diverse communities in Northeast Ohio. Research associates canvassed the communities and placed fliers at places where young adults were likely to congregate (e.g., community centers, college campuses, gyms, beauty parlors, barber shops, shopping centers, eating establishments). The fliers indicated that we wished to interview young adults who had been in a dating relationships as adolescents (ages 13-18) in which there was violence or maltreatment. The fliers also listed a wide variety of types of behaviors that might be considered dating violence (e.g., constant criticisms or putdowns, hitting and punching, sexual assault). The research associates also networked with residents, business owners, social service workers, clergy, and neighborhood leaders, many of whom then agreed to promote the study.

The fliers provided potential participants with a toll-free number to contact researchers. Any young adults who selfidentified as having experienced dating violence when they were teens, as described on the fliers, were eligible to participate. Because of the sensitive topic, telephone assessments were conducted by master's level mental health clinicians to screen out individuals at high risk for adverse emotional reactions. The clinicians used a protocol developed by the researchers (Draucker, Martsolf, & Poole, 2009) consisting of a series of questions to determine if potential participants were experiencing acute emotional distress or safety concerns or were an imminent danger to themselves or others. No participants were screened out for risk of adverse emotional reactions.

These clinicians then conducted the study interviews in private and secure locations in the participants' neighborhoods. The interviews consisted of two parts: a life narrative interview with open-ended questions about dating violence and other relevant life experiences and an events mapping interview that solicited concrete and detailed information about specific violent events. Participants received \$35.00 to compensate for their time and travel expenses. The interviews were audiotaped and transcribed verbatim.

Methodology

The study utilized the method of fundamental qualitative description (Sandelowski, 2000). This approach enables researchers to create a straightforward description of a phenomenon of interest in everyday language. Qualitative description is the method of choice when the research question requires that facts be obtained by low-inference interpretations of participant responses. As Sandelowski explains, "Qualitative description is especially amenable to obtaining straight and largely unadorned (i.e., minimally theorized or otherwise transformed or spun) answers to questions of special relevance to practitioners or policy makers" (p. 337).

Sampling/Data Collection

Purposive sampling is used in qualitative description to obtain information-rich cases (Sandelowski, 2000). The participants of the parent study had provided detailed information about events in which they were aggressors and/or targets of dating violence. Because abundant, but largely unsolicited, references to electronic communication technologies were embedded in their descriptions, these individuals constituted an information-rich sample in regards to the role of electronic communication technologies in adolescent dating violence. Although data collection is on going in the parent study, the authors determined that the first 56 participants provided ample data to meet study aims.

The interviews were entered into the NVivo7 (QSR International, Pty. Ltd., 2006) software program. Any references to electronic communication technologies—including the use of cell phones, voice mail, text messages, social networking sites, blogs, e-mail, and computer websites—were highlighted as text units. Text units are parts of text that represent a meaningful point of fact, story, or idea expressed by the participants, usually ranging from several sentences to several paragraphs in the case of a complete "story." Because our aim was to develop a comprehensive description of the role of the technology in adolescent dating violence, we did not limit the data set to references to technology being used aggressively. Rather, we included all references to technology used by the partners for communicating with each other and to any technology used during a violent event.

Data Analysis

Data were analyzed according to principles of qualitative content analysis (Sandelowski, 2000). The authors analyzed the data; both are experienced qualitative nurse researchers who have completed several research projects related to interpersonal violence. Content analysis is the technique most associated with fundamental qualitative description. In this approach, the content of the data set is summarized in a fashion that most directly answers the research question. We labeled each text unit with respect to the role the technology played in the relationship or the dating violence. We then organized the text units according to common roles and developed eight categories. Because the analysis was based on a low-level inference, inter-rater coding consistency estimates were not calculated. Instead, we reached consensus about the categories and coding of text units through discussion. To enhance consensus, we developed written coding procedures for labeling text units and coding text units to

Table 1. Participant Demographics

Women	41
African American	13
Caucasian	20
Native American	1
Other	2 5
More than one race	5
Men	15
African American	8
Caucasian	5
More than one race	2
Marital status	
Single	46
Married	2 2
Engaged	2
Did not report	6
Occupation	
Student	29
Employed	14
(occupations include: sales, business, health care,	
child care, and entertainment)	
Unemployed	14
(neither a student nor employed)	
Family of origin income (annual)	
<\$10,000	8
\$10,000-\$29,999	12
\$30,000-\$49,999	14
≥\$50,000	17
Did not report	5

categories. If the transcripts contained more than one reference to the same event or experience, all related or repeated material was considered as one text unit. Text units were coded to all applicable categories; therefore, the categories were not considered mutually exclusive.

Results

The sample included 41 women and 15 men. As shown in Table 1, the majority of participants were Caucasian and African American. Due to the age range of the sample, the majority were single (n = 46) and many were students (n = 29). Most came from families that made between \$10,000 and \$50,000 annually.

The diversity of the dating violence experienced by the sample was notable. As adolescents, the participants had endured violence that varied from a single incident of mild verbal abuse by one partner to on going severe verbal, physical, and sexual violence by multiple partners. Most of the participants described events in which both partners were violent, although one partner could often be identified as the primary aggressor. Only one participant described violence by a same-sex partner.

The 56 transcripts contained 324 references (text units) to the use of electronic communication technologies by the dating partners. Fifty transcripts had at least one text unit about technology. The number of text units for each transcript ranged from 0 to 21. Analysis revealed that technology was used for eight basic purposes: (1) establishing a relationship with a partner, (2) day-to-day communication (i.e., nonaggressive) with a partner, (3) arguing with a partner, (4) monitoring or controlling the activities or whereabouts of a partner, (5) perpetrating emotional or verbal aggression against a partner, (6) seeking help during a violent episode, (7) limiting a partner's access to oneself, and (8) reconnecting with a partner after a break-up or violent episode. Cell phones (including voice mail), text messages, social network sites, instant messages, websites, and e-mails were discussed. Cell phones were by far the most frequently mentioned technology (n = 254 text units). Table 2 displays the number of participants who described the use a each type of technology (e.g., cell phones, text messages, social networking sites) for each of the eight purposes identified. For example, eight participants used cell phones to establish a relationship with a partner, whereas two had used text messaging for this purpose. Table 2 also displays the total number of text units in the transcripts that refer to the use of a particular type of technology for one of the eight purposes. For example, 23 participants provided a total of 56 text units about the use of cell phones for the perpetration of emotional or verbal aggression against a partner.

Establishing a Relationship With a Partner

Eleven participants provided 16 text units about the adolescent use of electronic communication technologies in establishing a relationship with a partner. Most commonly, when the participants were teens they had met someone to whom they were attracted, often at a social gathering, and asked for his or her cell phone number. The two would then "start talking" on the phone. In some instances, the initial conversations were long and intense. One woman reported that she had first talked with a boy from 9:30 in the evening until she had to go the school the next morning. She stated, "So me and him, we did that all day everyday for the next two weeks until we finally went on our first date."

While references to the role of technologies other than cell phones in establishing relationships were infrequent, one story was particularly notable with regard to the evolution of dating violence. A woman as an older teen had gone to a local church to see a band play. She became interested in the lead singer and "started talking" to him on the social networking site MySpace. They communicated for a month or two before they started to date. She revealed, "I found out that he lived with his mom, didn't graduate high school, didn't drive, did drugs...I didn't know that before we

Purpose for which technology was used	Type of technology	Number of participants ^a	Total number of text units ^b
Establishing a relationship with a partner	Cell phone	8	10
	Text message	2	2
	Social networking sites	2	2
	Instant messages	2	2
	Total	11	16
Day-to-day, non aggressive communicating with a partner	Cell phone	11	12
5 5 60 6 1	Text message	3	4
	Social networking sites	1	1
	Total	15	17
Arguing with a partner	Cell phone	6	13
	Total	6	13
Monitoring or controlling a partner	Cell phone	25	56
	Text message	5	6
	Social networking sites	7	7
	E-mails	2	2
	Websites	1	1
	Key-loggers	1	1
	Total	30	73
Perpetrating emotional or verbal aggression against a partner	Cell phone	23	51
F	Text message	5	6
	Social networking sites	5	5
	Instant messages	1	1
	Total	30	64
Seeking help during a violent episode	Cell phone	8	14
seeking help during a violent episode	Total	8	14
Limiting a partner's access to self	Cell phone	28	62
Linning a partier's access to sen	Text message	7	8
	Social networking sites	3	3
	Instant messages	1	1
	E-mails	1	1
	Total	29	75
Reconnecting with a partner after a violent enjegde or break up	Cell phone	29	36
Reconnecting with a partner after a violent episode or break-up	Text message	5	7
		5	5
	Social networking sites		
	Instant messages	1	5
	E-mails	3	3
	Total	31	52

^aThe number of participants who experienced the use of each type of technology for each purpose; ^bThe total number of text units referring to the use of each type of technology for each purpose.

started dating." These characteristics caused considerable conflict in their relationship, which eventually became abusive.

Day-to-Day (Nonaggressive) Communication With a Partner

Fifteen participants provided 17 text units about the adolescent use of electronic technologies in day-to-day

JCAPN Volume 23, Number 3, August, 2010

(nonaggressive) communication with a partner. Several participants as teens had talked to their partners on the phone several times a day. Some indicated that talking on the phone was their primary way of interacting, especially when they were younger adolescents in middle school. Text messages were used to communicate practical information, such as negotiating a get-together, or to convey interest or concern. One woman compared an abusive partner she had during her teen years with a current dating partner and stated, "He

[the current partner] always texts me goodnight and makes me feel better. It's the first actual working relationship I have ever had with anyone."

Arguing With a Partner

Six participants provided 13 text units about the adolescent use of electronic technologies in arguing with a partner. These arguments did not include behaviors that would be considered violent, aggressive, or abusive. All took place on the phone. Some teen couples had argued regularly. One man stated, "I don't remember what any of it [arguments with his girlfriend] was about 'cause it was so . . . I remember arguing with her on the phone one time. . . . I'm just like, 'This is so ridiculous! Why are we even arguing about something like this!" "Some described specific precipitants to the arguments; many were about commonplace matters, such as being kept waiting for a date, whereas others were about significant life events, such as the paternity of an unborn child. In several cases, the argument led to a violent episode. One couple had argued on the phone because the participant had become pregnant as a young teen. After being released from jail, her partner came to her home and a violent altercation ensued.

Monitoring or Controlling the Activities or Whereabouts of a Partner

Thirty participants provided 73 text units about the adolescent use of electronic technologies in monitoring or controlling a partner. Most commonly, the participants described how when they were teens a partner had checked up on them by calling their cell phone, often multiple times. One woman's partner had called her up to 80 times a day when she went away to college. In some instances, the participants had curtailed their activities and relationships to avoid an onslaught of calls from a partner. One woman revealed that while she was in high school, her boyfriend "would call constantly when I was not with him to see what I was doing.... It got to the point where like I stopped going anywhere, 'cause I'd rather stay at my house or stay at his house so that he wouldn't be calling me." The monitoring occurred most frequently when one partner spent time with another person, especially someone of the opposite sex. In other instances, individuals turned off their phones or insisted that the partner stop calling. While some participants claimed the monitoring was prompted by care and concern, most controlling partners had indicated that they felt insecure about the relationship and were concerned about fidelity. Many individuals went through voice mail recordings or stored text messages in their partners' phones to determine to whom they had been talking.

Some people went to great lengths to monitor their partners' behaviors. One man who lived with a girlfriend when he was an older teen had installed keylogging software on the computer in their apartment. This allowed him to covertly monitor her communications and download her correspondence. He hoped to scrutinize her e-mails and web postings to confirm his suspicions that she was dating another man. In some instances, the monitoring involved an egregious invasion of privacy, as described by one participant:

[Her college boyfriend said], "Before you leave, I have something to share with you. Okay, sit down." He gives me this folder, and I'm like, "Okay, what is this?" He's like, "Open it." And I'm like, "Okay." And it's my Facebook account. He hacked into my Facebook account. I had an account open in 2005. This was 2007. I've never deleted any messages. He goes back to 2005 and prints out all the messages, reads every single message, and feels the need to highlight, write in notes, make stars. And it didn't show anything, where, like I cheated on him. I never did that. If it was messages between me and him on my account, it wouldn't have hurt that much.... And it made me so mad because I've never had my privacy abused like this by anyone, ever.

If the monitoring partner found what he or she believed to be evidence that the other was unfaithful, a violent episode often ensued. Some episodes were verbal, in which one partner "went on a tirade" calling the other derogatory names, such as bitch, slut, or "ho." Some episodes provoked by an electronic discovery of infidelity involved physical violence. The young teen partner of one participant "went through [his] phone" and found that he had been talking to another girl. She threw a knife at him, and he retaliated by slapping her.

Perpetrating Emotional or Verbal Aggression Against a Partner

Thirty participants provided 64 text units about the adolescent use of electronic communication technologies in perpetrating emotional or verbal aggression against a partner.

Thirty participants provided 64 text units about the adolescent use of electronic communication technologies in perpetrating emotional or verbal aggression against a partner. Most often, one partner would verbally abuse the other, usually over the phone. In some cases, the abuse involved mild putdowns, which were nonetheless hurtful. One woman had been told on the phone by her high school boyfriend that she "did not have a strong personality." In addition to hurting her feelings, she believed this treatment altered her self-perception. One man's girlfriend, who had continually berated him throughout their high school relationship, called him a "mama's boy" during a phone conversation. This insult caused him to finally break up with her. In most cases, the verbal abuse was severe. One woman as a young teen had received the following voicemail from her boyfriend: "F*** you, F*** you. I hate you. You are a f***ing waste of time. You are a f***ing waste of a human being. You're so f***ing worthless. I wish you would just die."

In some cases, partners left threatening voice mail or text messages. One woman's long-term high school boyfriend had repeatedly left voice mail messages threatening to harm her if she did not return his calls. She continued to be harassed by him despite a restraining order. Their relationship ended in an explosive incident in which he set her car on fire. Another woman recalled "verbatim" the words of her ex-boyfriend's threat, left on her voicemail when she was in high school: "If you don't return my phone calls, I will hunt you down. I will start at your house, and I will work my way from there."

Some of the verbal aggression was public; insulting, demeaning, and threatening messages were posted on websites by rejected partners. The teen ex-boyfriend of one woman had developed a website titled "I hate [the participant's name]" and invited other students in their high school to post hateful messages about her. Another woman's ex-boyfriend, whom she had met as an older teen, posted messages on a social networking site that stated that he had never loved her, but merely used her for sex, drugs, and transportation.

Seeking Help During a Violent Episode

Eight participants provided 14 text units about using electronic technologies as adolescents to seek help during a violent episode. In all cases, a cell phone was used to call for assistance. A few people summoned the police or emergency services. One woman, who had been brutally assaulted by her boyfriend in a hotel room following their high school prom, revealed: "I even tried to call the police at some points but it never got through. I had my phone in my hand under the covers. I'm trying to dial 911; maybe they could listen or even try to trace it." Several individuals called for help from family or friends. One woman had phoned a college friend to come get her after she had been beaten by her boyfriend and left alone at a park. If the person tried to call for help while the violence was occurring, a scuffle often ensued over the phone. One woman, whose boyfriend had threatened her with a gun, tried to call a male friend for help. Her boyfriend wrestled one phone from her hand and destroyed another phone in her car.

Limiting a Partner's Access to Oneself

Twenty-nine participants provided 75 text units about the adolescent use of electronic technologies in limiting a partner's access to them. Many individuals had decided as teens that they did not want to "deal with" their partners if their behaviors were troublesome (e.g., harassing, threatening) or if the pair had argued. In these situations, they had often set limits on interactions with their partners by not taking their calls or setting their phones on "silence." Some also chose not to respond to text messages or e-mails. Many limited access by hanging up if a phone conversation with a partner turned aggressive. One woman had summoned the courage to hang up on her abusive high school boyfriend when they got to college and considered her action to be a personal milestone. She explained:

I started, I changed a lot from that turning point after I hung up on him. I changed a lot and I was like, "[If] he is going to act this way toward me, I don't have to put up with it, I don't have to do this. I don't have to do that."

A few individuals distanced themselves from their partners by texting or taking phone calls when they were together, which left the ignored partner feeling angry or annoyed.

In some instances, individuals had limited contact with their partners more permanently. As teens, several had broken up with a partner by phone or text. One participant, whose boyfriend ended their relationship during a phone call, explained why breaking up this way might be preferable to breaking up face-to-face: "We were on the phone. I'm glad it was on the phone, because if we were in person, I would've begged . . . Not like, 'oh, please,' but I would've tried to talk him out of it. On the phone, you can't see each other."

Participants had used several forms of communication technologies to limit access to themselves after a break up, especially if a partner was "obsessive," persistent, or disturbed. One woman, who had had a tumultuous relationship with an abusive boyfriend throughout her teen years, reported that, "I removed him from any way that he could contact me. I deleted Facebook. I took his number off my phone. I blocked him on instant messenger. I got a new screen name." These actions reflected the insight that even one contact from an ex-partner could bring him or her back into one's life. One woman had changed her phone number to cut off contact with an older boyfriend who had harassed and manipulated her for several years throughout her ado-

lescence. His father, however, obtained her new number and called to ask that she relay an urgent message to his son. The woman's mother stopped her from making the call: "My mother's like, 'Do not call him, whatever you do. Because you are opening the door back up. Even a phone call will allow him back in your life.' It was really difficult not to—but I didn't call him."

Reconnecting With a Partner After a Break-up or a Violent Episode

Thirty-one participants provided 52 text units about using electronic technologies as adolescents to reconnect with a partner after a break-up or violent episode. After an aggressive incident, one partner had often called the other to apologize and re-establish the relationship that had been threatened by the incident. The apologies most often occurred over the phone. In some cases, the wronged person offered forgiveness and the couple reunited. In other cases, one partner held firm in his or her conviction that they stay apart. One man had broken up with his girlfriend following an altercation during homecoming weekend; she became enraged and drove home recklessly at a high rate of speed with him in the car. He explained, "She calls me. She's crying. She's like 'I'm sorry. Please take me back. I'm like, 'Not after what just happened. [You drive] 95 miles an hour, slam your brakes on and, like go crazy, and then kick me out of your car? No, I'm sick of you. . . . '"

In many instances, the use of technology to reconnect with a partner had occurred sometime after a break-up. In some cases, individuals tried to re-establish a romantic relationship with an ex-partner, although often under the guise of "staying friends." Such attempts occurred through a variety of electronic means, including phone messages, text messages, e-mails, and instant messages. Some individuals resisted such overtures. One woman, who as a teen had broken up with an abusive boyfriend, revealed her thoughts about her boyfriend's attempts to reconnect:

He tried to contact me a couple of times after that. Actually, recently, he sent me a text message. Who sends you a text message if they really want to get a hold of you? Give me a break. And I didn't reply back because I didn't want to be like, "Oh, I'm doing good" you know, whatever. And him think that, "Oh she still likes me. Blah, blah, blah." If I was a bitch in the text message, he would be like see, she still has a thing for me. Either way, I would have lost so I just didn't respond. I wanted to respond. I wanted to be a real ass, but, like I said, I just didn't think that was the right way to go about it. So, I just deleted it.

Others responded to their ex-partners' attempts to reconnect, and a few did remain in touch in a way that was acceptable to both parties. One woman stated, "He [her long-term high school boyfriend] texted me. He was . . . We're still tied to each other through our friends and stuff. If something bad happens, we'll talk about it."

Conclusions

This is the first study to enumerate ways in which electronic communication technologies are used in adolescent dating violence. For many participants, technology especially the use of cell phones—was the modality for carrying out verbal aggression. For others, technology played a less direct but significant role. Communication technologies facilitated the escalation of arguments, provided a means for the intrusive monitoring of a partner's behavior, and facilitated interactions among estranged couples, often resulting in more violence.

Communication technologies facilitated the escalation of arguments, provided a means for the intrusive monitoring of a partner's behavior, and facilitated interactions among estranged couples, often resulting in more violence.

Participants also used technology, however, to set limits on intrusion by partners and to protect themselves during violent incidents.

There are several limitations to the findings. Because the participants self-referred to the study, they may represent a select group whose experiences with dating violence, and subsequently with electronic aggression, were particularly problematic and unresolved, prompting them to join the study for the opportunity talk about their experiences. Conversely, the participants who perceived themselves to have healed and grown from their experiences may have been eager to participate in order to help others. In addition, the participant references to technology that provided data for this study were spontaneous rather than elicited and were imbedded in descriptions of dating violence. Table 1, therefore, provides an overview of the data set rather than an indication of how frequently the participants used those forms of technology as teens. For example, the relatively few text units related to the use of technology in nonaggressive communication do not suggest that the participants rarely used technology in this way; rather, they reflect the fact that the focus of the interviews was on violence rather than dayto-day communication. Second, the participants were aged 18–21 and were reporting retrospectively on their adolescent experiences. If teens were interviewed currently, electronic communication would probably play an even larger role in their lives due to technological advancements in the past few years. Newer venues, such as social networking sites and web-blogs, might now play a larger role in dating violence.

Qualitative descriptive techniques do not allow examination of relationships among categories (e.g., whether using electronic technologies to monitor a partner's activities is associated with the use of electronic technologies to perpetrate aggression) or the development of hypotheses (e.g., using electronic technologies to limit access to oneself facilitates protection from on going abuse). The findings, however, do support existing literature that suggests electronic communication technologies are enthusiastically embraced by adolescents (Lenhart, 2009; Lenhart & Madden, 2007). Although questions about technology were not part of the interview guide of the parent study, almost all of the participants mentioned it spontaneously and many discussed it extensively. This study supports the theoretical work of Subrahmanyam and Greenfield (2008), who argue that the typical adolescent issues of intimacy and sexuality have been transformed by the electronic world. Clearly, our data suggest that electronic communication plays an important role in a number of relationship issues, including fidelity, intimacy, autonomy, control, and conflict resolution. We recommend replication of this work with research that focuses specifically on electronic aggression in dating relationships so that the categories might be further developed.

Although the findings cannot substantiate the assumption that technology increases the prevalence or frequency of adolescent dating violence, they do suggest that it influences the dynamics of dating violence. In particular, these technologies redefine the boundaries of romantic relationships in ways that provide fertile ground for conflict and abuse. Participants were constantly available to one another by cell phones or other means. Electronically saved voice mails and text messages were available for scrutiny by insecure partners. Individuals easily contacted ex-partners by sending texts or posting messages on social networking sites, even if such contact was not desired.

Psychiatric nurses and other clinicians should be aware that technology is likely to play a central role in the dating communications of adolescents. The categories developed for this study can be used by clinicians who work with adolescents to formulate questions that explore (a) how technology affects their dating relationships, (b) if they or their partners use technology aggressively, and (c) if they need help managing electronic aggression. Possible questions might include:

- 1. Did technology play a role in how you began your relationship with X (dating partner)? How did that affect the beginning of your relationship?
- 2. Do you and X use technology to communicate? How do you think this affects the quality of your relationship?
- 3. Do you argue with X while using technology? How does this affect how you resolve conflicts?
- 4. Do you or X use technology to keep tabs on each other? What is this like for you?
- 5. Do you or X use technology aggressively or in ways that hurt one another? Is this something you need help managing?
- 6. (After a break-up) If you want to keep away from X, does technology makes this harder?
- 7. (After a break-up) If X contacts you by technology, and you do not want to communicate with him/her any longer, how would you handle that?

While technology may enrich adolescent dating relationships, clinicians need to consider the many ways in which it may be used to infringe on their privacy, autonomy, and safety.

Acknowledgments. This study was funded by the Centers for Disease Control, National Center for Injury Prevention and Control [RO1 1CE00183-01], Donna Martsolf, Principal Investigator.

Author contact: cdraucke@kent.edu, with a copy to the Editor: poster@uta.edu

References

- Centers for Disease Control and Prevention (CDC). (2009). Dating abuse fact sheet (Last Revised October 21, 2008). Understanding dating violence fact sheet. Retrieved May 30, 2010, from http:// www.cdc.gov/violenceprevention/pdf/TeenDatingViolence 2009-a.pdf
- David-Ferdon, C., & Hertz, M. F. (2007). Electronic media, violence, and adolescents: An emerging public health problem. *Journal of Adolescent Health*, 41, S1–S5.
- Draucker, C. B., Martsolf, D. S., & Poole, C. (2009). Developing distress protocols for research on sensitive topics. *Archives of Psychiatric Nursing*, 23(5), 343–350.
- Hill, J. (1983). Early adolescence: A framework. Journal of Early Adolescence, 3(1), 1–21.
- Hinduja, S., & Patchin, J. W. (2007). Offline consequences of online victimization: School violence and delinquency. *Journal of School Violence*, 6(3), 89–112.
- Howard, D. E., Wang, M. Q., & Yan, F. (2008). Psychosocial factors associated with reports of physical dating violence victimization among U.S. adolescent males. *Adolescence*, 43(171), 449–460.
- Juvonen, J., & Gross, E. F. (2008). Extending the school grounds? Bullying experiences in cyberspace. *Journal of School Health*, 78(9), 496–505.
- Lenhart, A. (2009). Teens and mobile phones over the past five years: Pew Internet looks back. Retrieved October 1, 2009, from Pew Internet & American Life Project Web site: http://pewinternet.org/ Reports/2009/14-Teens-and-Mobile-Phones-Data-Memo.aspx
- Lenhart, A., & Madden, M. (2007). Teens, privacy, & online social networks. Retrieved October 1, 2009, from Pew Internet & Ameri-

can Life Project Web site: http://www.pewinternet.org/Reports/2007/Teens-Privacy-and-Online-Social-Networks.aspx Mitchell, K. J., Wolak, J., & Finkelhor, D. (2007). Trends in youth

- Mitchell, K. J., Wolak, J., & Finkelhor, D. (2007). Trends in youth reports of sexual solicitations, harassment and unwanted exposure to pornography on the internet. *Journal of Adolescent Health*, 40, 116–126.
- National Institute of Health (NIH). (2009). Research on teen dating violence. PA-09-169. Retrieved June 9, 2009, from http://grants.nih.gov/grants/guide/pa-files/PA-09-169.html National Institute for Justice (NIJ) (2008). Teen dating violence: Devel-
- National Institute for Justice (NIJ) (2008). Teen dating violence: Developing a research agenda to meet practice needs. Conference Proceedings from "Teen Dating Violence: Developing a Research Agenda to Meet Practice Needs," Crystal City, Virginia. Retrieved September 29, 2009, from http://www.ojp.usdoj.gov/nij/topics/ crime/violence-against-women/workshops/teen-dating Classify K.D. Schor A. M. S. Avery Logf. S. & Cascardi M (2008)
- O'Leary, K. D., Slep, A. M. S., Avery-Leaf, S., & Cascardi, M. (2008).
 Gender differences in dating aggression among multiethnic high school students. *Journal of Adolescent Health*, *42*, 473–479.
 QSR International, Pty. Ltd. (2006). NVivo Qualitative Data Analysis
- QSR International, Pty. Ltd. (2006). NVivo Qualitative Data Analysis Program (Version 7). [Computer software]. Melbourne, Australia: Author.
- Sandelowski, M. (2000). Whatever happened to qualitative description? *Research in Nursing & Health*, 23, 334–340.

- Straus, M. A. (2008). Dominance and symmetry in partner violence by male and female university students in 32 nations. *Children* and Youth Services and Review, 30, 252–275.
 Subrahmanyam, K., & Greenfield, P. (2008). Online communication
- Subrahmanyam, K., & Greenfield, P. (2008). Online communication and adolescent relationships. *The Future of Children*, 18(1), 119– 146.
- Wilkinson, D. L., & Hamerschlag, S. J. (2005). Situational determinants in intimate partner violence. Aggression and Violent Behavior, 10, 333–361.
- Ybarra, M. L., Diener-West, M., & Leaf, P. J. (2007). Examining the overlap in internet harassment and school bullying: Implications for school intervention. *Journal of Adolescent Health*, 41, S42– S50.
- Ybarra, M. L., & Mitchell, K. J. (2004). Online aggressor/targets, aggressors and targets: Comparison of associated youth characteristics. *Journal of Child Psychology and Psychiatry*, 45(7), 1308– 1316.
- Ybarra, M. L., Mitchell, K. J., Wolak, J., & Finkelhor, D. (2006). Examining characteristics and associated distress related to internet harassment: Findings from the second youth internet safety survey. *Pediatrics*, 118, e1169–e1177. Retrieved November 26, 2008, from http://www.pediatrics.org/cgi/content/full/118/4/ e1169

Copyright of Journal of Child & Adolescent Psychiatric Nursing is the property of Wiley-Blackwell and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.