

# Perpetration of Teen Dating Violence in a Networked Society

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## Abstract

Teen dating violence (TDV) is a serious form of youth violence that youth fairly commonly experience. Although youth extensively use computer-mediated communication (CMC), the epidemiology of CMC-based TDV is largely unknown. This study examined how perpetration of psychological TDV using CMC compares and relates to perpetration using longer-standing modes of communication (LSMC; e.g., face-to-face). Data from the national Growing up with Media study involving adolescents aged 14–19 collected from October 2010 to February 2011 and analyzed May 2012 are reported. Analyses focused on adolescents with a history of dating ( $n = 615$ ). Forty-six percent of youth daters had perpetrated psychological TDV. Of those who perpetrated in the past 12 months, 58% used only LSMC, 17% used only CMC, and 24% used both. Use of both CMC and LSMC was more likely among perpetrators who used CMC than among perpetrators who used LSMC. In addition, communication mode and type of psychological TDV behavior were separately related to frequency of perpetration. Finally, history of sexual intercourse was the only characteristic that discriminated between youth who perpetrated using different communication modes. Results suggest that perpetration of psychological TDV using CMC is prevalent and is an extension of perpetration using LSMC. Prevention should focus on preventing perpetration of LSMC-based TDV as doing so would prevent LSMC as well as CMC-based TDV.

## Introduction

**I**NCREASINGLY, TEEN DATING VIOLENCE (TDV) is recognized as a serious form of youth violence<sup>1,2</sup> that can have lasting effects into adulthood.<sup>3–5</sup> TDV refers to violence within a relationship by which one partner is hurt or controlled.<sup>6</sup> TDV can be categorized as physical, psychological, or sexual. Nationally representative data show that 12% of adolescents reported physical and 29% reported psychological TDV victimization in the past 18 months,<sup>7</sup> and that 20% of adolescents reported physical, 44% reported psychological, and 11% reported sexual TDV victimization.<sup>8</sup> In addition, nationally representative data show that 30–42% of adolescents reported perpetrating physical TDV,<sup>8,9</sup> 18% reported perpetrating physical, and 3% reported perpetrating sexual TDV.<sup>8</sup> TDV can result in mental and somatic health challenges.<sup>10–14</sup>

TDV can occur through relatively longer-standing modes of communication (LSMC)—such as in person or over the phone.<sup>a</sup> TDV can also occur through newer modes of

communication that we will refer to as computer-mediated communication (CMC), which includes communicating via text messaging and the Internet (e.g., social network sites).

Youth extensively use CMC. An estimated 95% of U.S. adolescents aged 12–17 use the Internet.<sup>15</sup> In addition, an estimated 54% of U.S. adolescents aged 12–17 text message on a daily basis.<sup>16</sup> The online world has transformed the experiences and relationships of youth resulting in both positive-mediated outcomes (e.g., gaining health information via the Internet)<sup>15,17–19</sup> and negative-mediated outcomes (e.g., CMC-based TDV).<sup>15,20–23</sup>

Although understanding of what youth are using CMC for is fairly extensive,<sup>15,16,18</sup> the epidemiology of CMC-based TDV (i.e., perpetrated online or via text messaging) among youth is largely unknown.<sup>21</sup> A thorough literature search detected only one quantitative study examining CMC-based TDV.<sup>24</sup> Results suggest that substantial percentages of dating teens experience psychological TDV via CMC and that smaller percentages of them experience sexual and physical

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TDV via CMC. However, this study did not separate TDV experienced via a voice call on a cell phone (LSMC-based TDV) from that experienced via a text message or Internet technology (CMC-based TDV). Furthermore, how the rates of CMC-based TDV compare and relate to TDV perpetrated through LSMC (face-to-face or during a phone call) is unknown. Recent qualitative data<sup>21,25</sup> suggest that adolescents especially use CMC technologies to perpetrate psychological TDV as opposed to physical or sexual TDV (e.g., pressuring someone to engage in “sex talk” via the Internet).

To develop effective TDV prevention programs, we must understand how and the extent to which TDV is perpetrated using CMC. Knowledge of the prevalence rates of CMC- and LSMC-based perpetration of TDV provides a surface-level understanding of the extent of the problem. A deeper understanding of how CMC-based perpetration is related to LSMC perpetration and to overall frequency of TDV perpetration can more meaningfully inform the epidemiological understanding of CMC-based TDV and, consequently, TDV prevention and intervention efforts.

### Current study

Our study aims to examine the prevalence of CMC-based perpetration of TDV within the context of TDV perpetration in general. Given previous data<sup>21,25</sup> as well as the affordances of CMC technologies, we presume that psychological TDV is more likely to occur than physical or sexual TDV. Thus, our study focuses on psychological TDV. Specifically, we utilized a national sample of adolescents to examine, among youth who have had a boy/girlfriend (i.e., youth daters), (a) the prevalence rate of CMC-based perpetration of psychological TDV in comparison to the prevalence rate of LSMC-based perpetration, (b) the associations between LSMC- and CMC-based perpetration of psychological TDV, and (c) the association between mode and frequency of perpetration of psychological TDV. Finally, to enlighten understanding of the prevalence of CMC-based perpetration of psychological TDV, we examined (d) the associations between perpetrator characteristics that have been found to be related to TDV (i.e., biological sex,<sup>26</sup> age,<sup>27</sup> ethnicity and race,<sup>26,28,29</sup> and having had sex<sup>30</sup>) and frequency of CMC use and perpetration mode.

As with the perpetration of other aggressive behavior (e.g., bullying), the use of CMC in TDV perpetration can be thought of as an extension of LSMC-based TDV. If it is such an extension, we would expect to find (a) that LSMC-based perpetration of TDV is more prevalent than CMC-based perpetration; (b) that these behaviors are associated such that CMC-based TDV is more likely to be perpetrated by those who have perpetrated LSMC-based TDV than those who have not; and, consequently, (c) that, as compared to perpetration of LSMC-based TDV, perpetration of CMC-based TDV is associated with a higher overall frequency of TDV perpetration. If these hypotheses are supported, prevention efforts should then focus on preventing LSMC-based TDV as doing so would prevent future perpetration of LSMC-based TDV as well as future perpetration of CMC-based TDV.

Conversely, the use of CMC in perpetration of TDV might be independent of LSMC-based TDV perpetration. If it is independent, we would expect to find (a) that perpetration of CMC-based TDV is not related to perpetration of LSMC-based TDV and (b) that perpetration of CMC-based TDV and

perpetration of LSMC-based TDV are not differentially associated with frequency of TDV perpetration. If these hypotheses are supported, prevention efforts should focus on preventing both LSMC- and CMC-based perpetration of TDV and, perhaps, interventions should adopt tailored prevention strategies for each. Insight into whether CMC-based TDV is an extension of or independent of LSMC-based TDV can, thus, meaningfully inform TDV prevention efforts.

## Materials and Methods

### Participants and procedures

Growing up with Media is a longitudinal survey examining the associations between exposure to violent media and violent behavior. The survey protocol was approved by the Centers for Disease Control and Prevention Institutional Review Board. Wave 1 data were collected in August–September 2006 with 1,586 youth–caregiver pairs. Adult respondents were recruited through an e-mail sent to randomly identified adult Harris Poll OnLine (HPOL) panel members who reported having a child living in the household. Youth participants were 10–15 years old, read English, lived in the household at least 50% of the time, and had used the Internet in the last 6 months. Recruitment was balanced based on youth’s biological sex and age.

Indicators of dating violence were added in Wave 4, which occurred between October 2010 and February 2011. Of those that completed the Wave 1 survey, 56% ( $n=888$ ) completed the Wave 4 survey. Caregivers received \$20 and youth, \$25, for their participation in Wave 4. A \$10 bonus incentive was offered to youth nonrespondents in the last month of fielding the study. At Wave 4, participants were 14–19 years old ( $M=16.4$ ), 50% female, 13% Hispanic, 75% white, 8% black, 7% multiracial, and 10% of other race. Characteristics of Wave 4 respondents are similar to those of non-respondents.<sup>8</sup> Analyses were conducted in May 2012.

### Measures

**Perpetration of psychological TDV.** Perpetration of psychological TDV was measured using four items adapted from Foshee’s Victimization in Dating Relationships scale.<sup>31</sup> Respondents who had ever had a dating relationship were asked to think about the people they have been in a romantic relationship with and to report how many times they had ever done each of four things. Two items asked about doing something to control their dating partner. Responses to these two items were averaged to create one variable that reflected frequency of perpetrating controlling psychological TDV. The third item asked about doing something to make their partner jealous. The fourth item asked about degrading their partner. Youth responded to each item with “never” (0), “1–3 times” (1), “4–9 times” (2), or “10 or more times” (3).

Respondents who reported having ever perpetrated any of the four specific psychological TDV behaviors were asked whether they engaged in the reported behavior(s) in the past 12 months: in person, online, by phone call (on a cell phone or landline), by text message, or in some other way. Multiple responses were allowed. Behaviors that occurred in person or by phone call were classified as LSMC-based TDV; those that took place online or by text message were classified as CMC-based TDV. Respondents were coded separately for (a) whether they perpetrated LSMC-based TDV, (b) whether

they perpetrated CMC-based TDV, and (c) the use of neither versus use of LSMC only versus use of CMC only versus use of both LSMC and CMC.

**Demographic and Internet use characteristics.** Caregivers reported youth age and biological sex. Youth reported their race, ethnicity, whether they had ever had sexual intercourse, how much time they spend on the Internet on a typical day, and how much time they spend sending or receiving text messages on a cell phone on a typical day. Responses regarding time were coded for 0 minutes to 1 hour, more than 1 hour to 2 hours, more than 2 hours to 3 hours, and more than 3 hours.

**Survey process measures.** Youth reported whether they were alone and whether they responded honestly when completing the survey.

*Data cleaning and analyses*

HPOL data are comparable to data that have been obtained from random telephone samples of adult populations once appropriate sample weights are applied.<sup>32-35</sup> Data were weighted statistically at Wave 1 to reflect the population of adults with children aged 10-15 years in the United States according to adult age, sex, race/ethnicity, region, education, household income, and child age and sex.<sup>36</sup> Survey sampling weights were then adjusted for adult respondents' self-selection into the HPOL and for differential participation over time.<sup>32-35</sup>

Missing data and "refused" responses were imputed using a multiple imputation procedure.<sup>37</sup> Ten respondents were dropped from the Wave 4 sample because they did not have valid data for at least 80% of the survey questions. Another 263 respondents reported never having had a boy/girlfriend, resulting in a final analytic sample of 615 youth daters.

A  $\chi^2$  test, corrected for survey weights (Design-based *F*), was used to assess the association between LSMC- and CMC-based perpetration of psychological TDV in the past 12 months among youth perpetrators (*n* = 279). Multilevel modeling<sup>38</sup> was used to examine whether, among youth who perpetrated CMC- and/or LSMC-based psychological TDV in the past 12 months (*n* = 274), frequency of perpetration varied by communication mode and type of psychological TDV behavior. In this model, having used only CMC and having used both CMC and LSMC were independently compared to having used only LSMC. These variables were person-level variables. In addition, frequency of perpetration of having "tried to make partner jealous" and having "degraded partner" were independently compared to having "tried to control partner." These variables were nested within person while controlling for survey process measures. Finally,  $\chi^2$  tests corrected for survey weights were used to assess the association between perpetrator characteristics and communication mode (while controlling for survey process measures) among perpetrators of past year CMC- and/or LSMC-based psychological TDV (*n* = 274).

**Results**

Of youth daters, 46%<sup>b</sup> (*n* = 279) reported ever perpetrating at least one of the four psychological TDV behaviors.

TABLE 1. RATES OF PERPETRATION OF PSYCHOLOGICAL TEEN DATING VIOLENCE IN THE PAST 12 MONTHS AMONG YOUTH PERPETRATORS (*N* = 279)

<i>Communication mode used to perpetrate psychological TDV</i>	<i>% (n)</i>
LSMC (either in person or phone call)	82.4 (228)
In person	71.1 (203)
Phone call	30.2 (80)
CMC (either online or text messaging)	40.6 (116)
Online	13.2 (32)
Text messaging	37.6 (108)

Percentages are corrected for survey weights. CMC, computer-mediated communication; LSMC, longer-standing modes of communication; TDV, teen dating violence.

Twenty-five percent reported perpetrating one, 13% reported perpetrating two, 6% reported perpetrating three, and 3% reported perpetrating all four of the psychological TDV behaviors.

*Rates of and associations between using LSMC and CMC to perpetrate psychological TDV*

As shown in Table 1, most youth perpetrators of psychological TDV in the past 12 months used LSMC (82%), most commonly in-person (71%). A smaller, though still substantial, percentage of perpetrators used CMC (41%), particularly text messaging (38%).

As shown in Table 2, more than half (58%) of youth perpetrators used only LSMC, 17% used only CMC, and 24% used both LSMC and CMC to perpetrate psychological TDV in the past 12 months. In addition, use of both CMC and LSMC was more likely among perpetrators who used CMC (60%) than among perpetrators who used LSMC (31%), Design-based *F*(1, 275) = 82.3, *p* < 0.001.

*Association between communication mode and frequency of perpetration across type of psychological TDV behavior*

Among youth perpetrators of CMC- and/or LSMC-based psychological TDV in the past 12 months, overall frequency of perpetration did not differ between those who perpetrated using only LSMC (*M*<sub>predicted</sub> = 0.50) and those who used only CMC (*M*<sub>predicted</sub> = 0.44), *t*(269) = -0.92, *p* = 0.36. However, those who perpetrated using both LSMC and CMC perpetrated more frequently (*M*<sub>predicted</sub> = 0.83) than those who used only LSMC, *t*(269) = 4.09, *p* < 0.001.

Results also indicate that frequency of perpetration varied by type of psychological TDV behavior (see Fig. 1). On average, youth perpetrators tried to make their partner jealous more frequently than they tried to control their partners, *t*(269) = 4.16, *p* < 0.001. Average frequency of degrading a partner did not differ from the frequency of trying to control a partner, *t*(269) = -0.44, *p* = 0.658. None of the communication modes by type of psychological TDV behavior interaction terms were reliably associated with frequency of perpetration, suggesting that differences in frequency of perpetration across type of psychological TDV behavior were unaffected by communication mode.

TABLE 2. OVERLAP IN COMMUNICATION MODES USED BY YOUTH PERPETRATORS ( $N=279$ ) TO PERPETRATE PSYCHOLOGICAL TEEN DATING VIOLENCE

		CMC-based perpetration of psychological TDV in the past 12 months		
		No, % (n)	Yes, % (n)	Total, n
LSMC-based perpetration of psychological TDV in the past 12 months	No, % (n)	1.1 (5)	16.6 (46)	51
	Yes, % (n)	58.3 (158)	24.1 (70)	228
	Total, n	163	116	

Design-based  $F$  statistics;  $p < 0.001$  with percentages corrected for survey weights.

### Associations between perpetrator characteristics and psychological TDV perpetration communication mode

As shown in Table 3, youth perpetrators of psychological TDV in the past 12 months were remarkably similar irrespective of the communication mode they used. The only discriminating characteristic was history of sexual intercourse, Design-based  $F(2, 532)=4.0$ ,  $p=0.019$ . Youth who perpetrated using only LSMC or using both LSMC and CMC were more likely to have had sexual intercourse (74% and 70%, respectively) than youth who perpetrated using only CMC (45%).

### Discussion

Findings suggest that, in our national sample of youth with a history of dating, perpetration of psychological TDV using CMC is likely an extension of perpetration communicated via LSMC. Furthermore, on average, youth perpetrators who use both types of communication modes perpetrate with greater frequency ( $M_{\text{predicted}}=0.83$  compared to 0.50 for use of LSMC only and 0.44 for use of CMC only). Thus, CMC-based perpetration may be an important flag for adolescent health professionals, and a growing appreciation for how CMC is being used to express TDV cannot be done absent the context of LSMC. Given the higher prevalence of LSMC-based TDV and its association with CMC-based TDV, prevention efforts should be directed more toward preventing LSMC-based TDV as such

efforts could affect future perpetration of LSMC-based TDV as well as perpetration of CMC-based TDV.

It may be that CMC-based behavior can be more easily shared with others and this greater visibility may facilitate opportunities for re-victimization. This increased visibility might also provide new prospects for intervention efforts for victims that would be more difficult to implement in LSMC-based situations. Unlike LSMC-based TDV, CMC-based TDV leaves traces. Unless explicitly deleted, CMC messages (e.g., text messages) are often archived. These messages can be shared with a counselor. They can also be repeatedly consumed in a manner that intensifies the victimization experience. Future work is needed to understand the implications of having a record of TDV incidents.

Prevention programming should consider the finding that a substantial proportion of youth perpetrators (17%) engaged in CMC-based but not LSMC-based psychological TDV. These youth could represent atypical youth who prefer to perpetrate psychological abuse only indirectly (e.g., those with passive aggressive personalities). It may also be that these youth have limited in-person time with boy/girlfriends and, thus, fewer opportunities to engage in LSMC-based TDV. This latter explanation could also account for the finding that these youth perpetrators were less likely to report having had sexual intercourse as compared with perpetrators who used LSMC or both LSMC and CMC. Conversely, perpetrators who used only CMC could reflect the availability and constant accessibility of CMC technologies.<sup>15,39</sup> CMC might be integrated into these youth's lives and just another way for them to communicate. For them, CMC-based psychological TDV might be less of an extension of LSMC-based TDV and more of a reflection of the mode(s) of communication available when they want to perpetrate TDV. Future work is needed to examine these possibilities.

Not all technologies appear to be equal. Psychological TDV is perpetrated almost three times as frequently via text messaging versus online. This difference might be because youth are more likely to have continuous access to texting. Conversely, their Internet access is more likely to vary throughout the day; only 23% of all youth ages 12 to 17 have a smartphone,<sup>39</sup> which they can use to access the Internet. This difference in rates might, instead, be because perpetration occurs in more intimate settings and youth view text messaging as a relatively more intimate medium.

In addition, although prevention efforts should address all of the specific psychological TDV behaviors, they should particularly emphasize prevention of jealousy-provoking behaviors. Dating relationship experiences (including controlling behavior, jealousy-invoking behavior, and degradation) have significant implications for health, adjustment, and

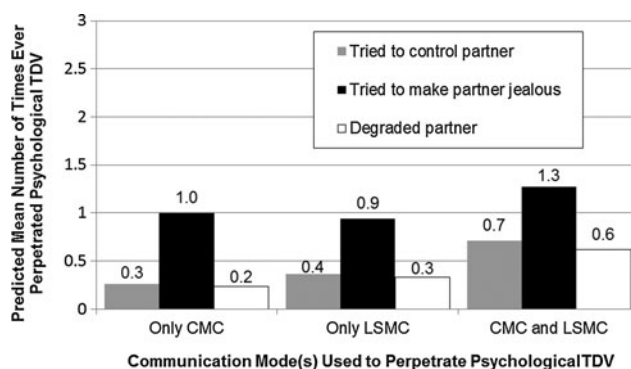


FIG. 1. Effects of the type of communication mode(s) used to perpetrate psychological teen dating violence (TDV) and type of psychological TDV on frequency of perpetration among youth who perpetrated computer-mediated communication (CMC) and/or longer-standing modes of communication-based (LSMC) psychological TDV in the past 12 months ( $n=274$ ).

TABLE 3. PERPETRATOR CHARACTERISTICS BY COMMUNICATION MODE(S) USED TO PERPETRATE PSYCHOLOGICAL TEEN DATING VIOLENCE DURING THE PAST 12 MONTHS (N=274)

<i>Perpetrator demographic characteristics</i>	<i>LSMC-based<sup>a</sup> perpetration only (n=158) % (n)</i>	<i>CMC-based<sup>b</sup> perpetration only (n=46) % (n)</i>	<i>Both types of perpetration (n=70) % (n)</i>	<i>p<sup>c</sup></i>
Sex				0.963
Female	56.4 (89)	53.5 (27)	54.7 (41)	
Male	43.6 (69)	46.5 (19)	45.3 (29)	
Age				0.514
14–15	17.3 (40)	19.7 (10)	13.9 (13)	
16–17	30.5 (55)	44.8 (22)	40.6 (24)	
18–19	52.2 (63)	35.6 (14)	45.5 (33)	
Hispanic ethnicity				0.835
Yes	19.3 (21)	22.3 (10)	15.8 (8)	
No	80.7 (137)	77.7 (36)	84.2 (62)	
Race				0.686
White	72.6 (123)	80.6 (34)	73.7 (46)	
All other	27.4 (35)	19.4 (12)	26.3 (24)	
Time spent on the Internet on a typical day				0.627
0 minutes to 1 hour	31.6 (49)	22.2 (9)	32.7 (18)	
More than 1 hour to 2 hours	32.1 (54)	28.3 (10)	24.6 (21)	
More than 2 hours to 3 hours	11.3 (21)	26.7 (13)	15.9 (14)	
More than 3 hours	25.0 (34)	22.8 (14)	26.8 (17)	
Time spent sending and receiving text messages on a typical day				0.135
0 minutes to 1 hour	34.9 (56)	20.7 (8)	18.1 (13)	
More than 1 hour to 2 hours	11.7 (26)	19.9 (9)	23.9 (14)	
More than 2 hours to 3 hours	16.2 (24)	4.5 (3)	19.1 (14)	
More than 3 hours	37.2 (52)	54.8 (26)	38.9 (29)	
Ever had sexual intercourse				0.019
Yes	73.7 (99)	45.3 (20)	69.5 (43)	
No	26.3 (59)	54.7 (26)	30.6 (27)	

The group of youth who engaged in psychological TDV but did not engage in LSMC- or CMC-based psychological TDV in the past 12 months (*n*=5) were excluded from these analyses because of its small sample size. Percentages are corrected for survey weights.

<sup>a</sup>Face-to-face and phone call.

<sup>b</sup>Over the Internet and text message.

<sup>c</sup>Design-based *F* statistics.

psychosocial functioning.<sup>40,41</sup> However, on average, trying to make a partner jealous was the psychological TDV behavior most frequently perpetrated by youth daters, and jealousy has been directly linked to physical relationship violence.<sup>42,43</sup> Thus, efforts emphasizing prevention of this perpetration behavior may be particularly critical in helping youth establish healthy relationship patterns. It is also important for future work to better understand the range of ways in which jealousy is employed by youth.

Future studies could examine whether youth perpetrators know the potential impact of psychological TDV and whether this expected impact is affected by one’s choice of communication mode or the particular way that the communication mode is used (e.g., posting a degrading comment on a social media page that can be viewed by others versus e-mailing the comment to their boy/girlfriend’s private e-mail account). Moreover, if perpetrators know the potential impact, are they deliberately using particular communication modes in certain ways to have particular impact?

**Limitations and Strengths**

We have defined and operationalized TDV as others have done.<sup>6,31</sup> However, we recognize the socially constructed nature of “violence”<sup>44</sup> and that our operationalization of TDV

might not be appropriate within the socially constructed understanding of controlling, jealousy-invoking, and degrading behaviors of another time, culture, population, or field of study. Regardless of how these behaviors are categorized (e.g., violence, aggression, manipulation, typical relationship behavior), they have been linked to negative outcomes (e.g., physical violence),<sup>42,43</sup> and therefore should be the focus of prevention efforts.

Our study focused on perpetration of psychological TDV. Thus, it is unclear how study results apply to physical and sexual TDV. In addition, perpetration of TDV was based on self-reports, which might have led to an underestimate of perpetration of psychological TDV. Finally, only youth who used the Internet were included (excluding the 5% of youth who are not online<sup>15</sup>). This exclusion might have led to an overestimate of CMC-based youth perpetration of psychological TDV.

Our study, however, used a national, randomly selected sample of adolescents. This sample includes homeschooled and school absent youth making these data likely to be more representative than school surveys. It also used a multiple-item measure of psychological TDV, providing a relatively more comprehensive measure of psychological TDV. Finally, it used multilevel modeling to distinguish variation due to person from variation due to repeated measure.

## Conclusions

Results suggest that, despite wide saturation of CMC use among adolescents, perpetration of psychological TDV is still more likely in person or via a phone call (LSMC) than via text message or Internet communication (CMC). Results further suggest that CMC-based TDV is an extension of LSMC-based TDV. Prevention efforts should be directed accordingly.

## Acknowledgments

Data collection for this article was supported by a grant from the National Institute for Mental Health (NIMH; 5 R01 MH080662) awarded to M.L.Y. The contents of this article are solely the responsibility of the authors and do not necessarily represent the official views of the NIMH.

We thank the entire Growing up with Media Study team: Center for Innovative Public Health Research, Harris Interactive, Johns Hopkins Bloomberg School of Public Health, and NIMH. We also thank the families for their time and willingness to participate in this study.

## Notes

- a. We consider a phone call via cell phone one of the longer-standing modes of communication because, although it occurs via a newer technology, it is essentially the same as a phone call via landline phone.
- b. This and the following percentages are corrected for survey weights.

## Author Disclosure Statement

No competing financial interests exist.

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