

# College Students' Use of Electronic Communication with Parents: Links to Loneliness, Attachment, and Relationship Quality

Amy L. Gentzler, Ph.D.,<sup>1</sup> Ann M. Oberhauser, Ph.D.,<sup>2</sup> David Westerman, Ph.D.,<sup>3</sup> and Danielle K. Nadorff, M.S.<sup>1</sup>

## Abstract

Despite the ubiquitous use of new communication technologies, gaps in our knowledge remain regarding who is likely to rely on particular technologies and potential ramifications of these forms of communication on individuals' relationships and adjustment. In an online survey, 211 college students reported on their use of electronic communication with a parent who they identified as their closest family member. Results indicated that students who report more frequent phone conversations with parents also report more satisfying, intimate, and supportive parental relationships, but those students who use a social-networking site to communicate with parents report higher levels of loneliness, anxious attachment, as well as conflict within the parental relationship. The findings offer new evidence on how electronic communication technology with parents is related to adjustment in college students. Our study also suggests that further research is needed using longitudinal designs to understand better young adults' use of technology to communicate in today's society.

## Introduction

THE TRANSITION TO COLLEGE REQUIRES NEGOTIATING dual needs of retaining closeness to hometown family and friends while establishing new friendships and independence at college. Although retaining emotional closeness to parents is healthy,<sup>1</sup> for current college students, it is unclear whether close relationships with parents would be maintained through all means of electronic communication or only through certain ones (e.g., face-to-face or by phone). In the present study, we examined how college students' use of technology to communicate with parents is associated with the quality of their parental relationships, as well as their type of attachment and levels of loneliness.

Prior research has found that preoccupied (i.e., more anxiously attached) adolescents have more contact with parents once away at college than do securely attached adolescents who initially have high levels of communication that are reduced once at college.<sup>2</sup> Other findings have suggested that too much closeness with parents might signify problems with adolescents' autonomy, and identity formation.<sup>3,4</sup> The present study extends earlier work by testing whether greater anxious attachment relates to more frequent communication using all modes of technology, or just certain types.

Another key index of college students' adjustment is their level of loneliness. Studies have shown that the more immediate a form of communication, and the more that this communication is used within existing close relationships, the more likely it is to decrease feelings of loneliness.<sup>5-8</sup> These findings suggest that students who use less immediate channels, such as e-mail, may be lonelier. Alternatively, lonelier college students may report less frequent use of all channels with parents.

The present study attempted to address these important gaps in our understanding about young adults' adjustment to college and their communication with parents. We examined the frequency of college students' use of four channels with a parent: phone, text messaging, social-networking sites (SNS), and e-mail. Second, we investigated whether students' frequency of using these various technologies is associated with levels of loneliness, attachment, and the quality of their relationship with their parents.

## Method

### Sample

The sample included 211 students from general psychology classes (74% women) who completed an online survey in

<sup>1</sup>Department of Psychology, West Virginia University, Morgantown, West Virginia.

<sup>2</sup>Department of Geography, West Virginia University, Morgantown, West Virginia.

<sup>3</sup>Department of Communication Studies, West Virginia University, Morgantown, West Virginia.

the 2009 spring semester. Students received extra credit in their classes for participating. The age range was 18–22 years ( $M=19.46$ ). Most participants were white (94%), the remaining were Asian-American (2%), Hispanic-American (2%), African-American (1%), or other (1%), and one person declined to answer the question.

The 211 students were from a larger sample of 297 students who completed the survey. We excluded students above 22 years of age ( $n=11$ ) and, in the present paper, focused on the 211 respondents who reported a parent as their closest family member ( $n=178$  chose mother;  $n=33$  chose father). The 211 did not differ from the larger sample ( $n=286$ ) on gender or age, but they did differ on ethnicity. Specifically, white students were more likely to choose a mother or father as their closest family member (76.4%) compared to non-white students (46.2%),  $\chi^2(1, N=285)=11.18, p<0.001$ . Additionally, the 211 who chose a parent as their closest family member scored lower on loneliness,  $M=1.71$  vs.  $1.95, t(283)=3.32, p<0.001$ , avoidant attachment,  $M=3.02$  vs.  $3.47, t(284)=2.88, p<0.01$ , and anxious attachment,  $M=3.09$  vs.  $3.51, t(284)=2.71, p<0.01$ . Thus our sample of 211 students appears to be a better adjusted sample on average than those who reported a sibling or extended family member as their closest family member. Also, the present sample is less ethnically diverse (5.7% African-American, Asian-American, or Hispanic-American) compared to the full sample (9.1% minorities).

### Measures

The survey consisted of three sections where participants selected responses to describe their communication patterns with each of the three types of people: (a) best friend; (b) romantic partner or, if not currently in a relationship, another close friend; and (c) closest family member. This paper reports on data from the last section. Participants were also asked to report on the amount of face-to-face time and the location of each individual's home (later coded as miles to the town where the university is located). Three extreme outliers on the distance variable (1,469, 2,447, and 5,396 miles) were recoded to the next highest amount (694 miles).

**Use of communication technology.** Participants rated the frequency of their use of phone, texting, e-mail, and SNS with their parent, as well as frequency of face-to-face interaction, using the following 8-point scale: 0 = "never"; 1 = "few times a year"; 2 = "once a month"; 3 = "few times a month"; 4 = "once a week"; 5 = "few times a week"; 6 = "for a short period of time each day"; 7 = "several hours a day".

**Loneliness.** Participants' loneliness was measured using the revised University of California Los Angeles Loneliness Scale.<sup>9</sup> This is a 20-item measure where items (e.g., "I am no longer close to anyone") are rated on a 4-point scale (1 = "never," 2 = "rarely," 3 = "sometimes," and 4 = "often") and are summed to create a loneliness index ( $\alpha=0.93$ ).

**Attachment.** Attachment was measured using the Experience in Close Relationships—Revised (ECR-R) questionnaire, which is Fraley et al.'s<sup>10</sup> revision of the ECR.<sup>11</sup> The 36-item measure assesses two dimensions that underlie individual differences in adult attachment: avoidance and

anxiety about close relationships. Items are rated on a 7-point scale, and corresponding items are later averaged to create scales for avoidance ( $\alpha=0.95$ ) and anxiety ( $\alpha=0.94$ ) about close relationships.

**Relationship quality.** Respondents rated five aspects of their parental relationship using subscales from the Network of Relationships Inventory.<sup>12</sup> Items are scored on a 5-point scale. Each subscale consists of three items, which are summed to create scales: relationship satisfaction ( $\alpha=0.93$ ), intimacy ( $\alpha=0.92$ ), support ( $\alpha=0.90$ ), instrumental aid ( $\alpha=0.82$ ), and conflict ( $\alpha=0.92$ ).

### Results

Results indicated that college students' frequency of communication with a parent varied by channel. All students reported some degree of phone ( $M=5.50, SD=0.93$ ) and face-to-face ( $M=4.51, SD=1.79$ ) communication with a parent, whereas close to two-thirds of the sample reported e-mail ( $M=2.16, SD=2.01$ ) and text ( $M=3.10, SD=2.54$ ), and only about a quarter of the sample reported using a SNS ( $M=0.89, SD=1.76$ ) to communicate with a parent.

In linear regression analyses, loneliness, attachment, and relationship indices were regressed on the amount of use of each technology while including participant gender, age, and the frequency of face-to-face contact as covariates (see Table 1). Results indicated that more frequent use of a SNS to communicate with a parent was linked to greater loneliness. More frequent phone communication was associated with more positive qualities about the parental relationship: greater satisfaction, intimacy, support, and instrumental aid. Consistent with prior research,<sup>13</sup> women reported more support and instrumental aid from the parent than did men.

Post hoc analyses were run to examine if college students who use any amount of a SNS to communicate with their parents differ from students who do not use a SNS with parents (see Table 2). Paralleling results with SNS use as a continuous variable, an independent-groups *t*-test indicated that loneliness was higher for SNS users than non-SNS users. Results also showed that SNS users scored higher on anxious attachment and reported more conflict within their parental relationship compared to non-SNS users. SNS users and non-users were comparable on levels of attachment avoidance and on satisfaction, support, intimacy, and instrumental aid within their parental relationship. Finally, our results indicated that those students who use a SNS with parents also communicate more frequently with parents in general, but there was no group difference on distance to the parents' homes.

### Discussion

Our study suggests that modes of communication with parents are differentially related to adjustment and relationship quality. Specifically, college students who report more supportive, satisfying, and emotionally intimate parental relationships talk to their parent on the phone more often. But those who use a SNS to communicate with parents report higher levels of loneliness and anxious attachment, and conflict within the parental relationship. Although cross-sectional, this study offers insight into factors linked to using

TABLE 1. MULTIPLE LINEAR REGRESSION RESULTS PREDICTING LONELINESS, ATTACHMENT, AND RELATIONSHIP QUALITIES FROM FREQUENCY OF USING EACH COMMUNICATION DEVICE, WHILE CO-VARYING THE FREQUENCY OF FACE-TO-FACE INTERACTIONS WITH A PARENT, AND PARTICIPANTS' GENDER AND AGE

|                | <i>Loneliness</i> | <i>Attachment</i> |                | <i>Parental Relationship Quality</i> |                 |                |            |                 |
|----------------|-------------------|-------------------|----------------|--------------------------------------|-----------------|----------------|------------|-----------------|
|                | $\beta$           | <i>Avoidance</i>  | <i>Anxiety</i> | <i>Satisfaction</i>                  | <i>Intimacy</i> | <i>Support</i> | <i>Aid</i> | <i>Conflict</i> |
|                |                   | $\beta$           | $\beta$        | $\beta$                              | $\beta$         | $\beta$        | $\beta$    | $\beta$         |
| Phone          | -0.14             | -0.03             | -0.13          | 0.30***                              | 0.38***         | 0.34***        | 0.25**     | 0.03            |
| E-mail         | 0.08              | 0.03              | -0.06          | -0.03                                | -0.00           | 0.01           | 0.03       | -0.05           |
| Text           | 0.06              | 0.14              | 0.04           | 0.02                                 | -0.02           | 0.03           | -0.00      | 0.07            |
| SNS            | 0.16*             | 0.06              | 0.15*          | -0.12                                | 0.03            | -0.06          | -0.08      | 0.13            |
| Face-to-face   | 0.08              | -0.01             | -0.07          | -0.11                                | -0.02           | -0.04          | -0.02      | -0.01           |
| Gender         | -0.05             | -0.19*            | -0.03          | 0.10                                 | -0.12           | 0.17*          | 0.22**     | -0.08           |
| Age            | -0.01             | 0.02              | -0.10          | -0.10                                | -0.10           | -0.10          | -0.05      | -0.02           |
| R <sup>2</sup> | 0.07*             | 0.06              | 0.06           | 0.13***                              | 0.18***         | 0.19***        | 0.14***    | 0.03            |
| (adjusted)     | (0.04)            | (0.02)            | (0.02)         | (0.10)                               | (0.15)          | (0.16)         | (0.11)     | (0.00)          |

SNS = social-network site. Gender: 0 = men; 1 = women. \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ .

these various channels, which is noted as an area for future research.<sup>14</sup>

Interestingly, phone usage with parents was consistently related to several indicators of positive relational quality with parents. The Theory of Electronic Propinquity<sup>15</sup> offers one possible explanation. Students may prefer the phone because it provides just the right amount of closeness, which fits with the report that college students view mobile phones as essential tools to remain in close contact with parents while not impinging upon their independence.<sup>16</sup>

The provocative findings for college students' use of a SNS with parents emerged when controlling for other forms of communication and also when simply dichotomizing participants into groups based on any amount of SNS use with a parent. Descriptive analyses indicated that SNSs are the least common way to communicate with parents. Furthermore, our results showed that SNS users are more anxiously attached, lonely, and have more parental conflict. Although highly anxious individuals' intense need for intimacy and support may make them prone to perceived loneliness,<sup>17</sup> our findings offer new evidence on how anxiously attached adolescents' communication with parents may be manifested

among today's college students. Additional information about this dynamic would be useful, such as who initiated contact on the site and whether it began prior to college. Because individual differences in attachment are considered to originate when children are very young,<sup>18</sup> college students' anxious attachment is likely to precede and may even motivate the use of SNS with parents. Moreover, if parents themselves are also more anxiously attached, they may have difficulty with separation<sup>19</sup> and might initiate SNS use to maintain feelings of closeness to their child.

Although loneliness stems from fewer or less satisfying relationships than one would like,<sup>20</sup> our findings indicated that adolescents reporting SNS use with parents also report greater overall communication with parents. Thus lonelier college students were not isolated from their parents, which may suggest that college students' judgments of loneliness are based on their perceived relationships from peers, and that lonelier students might turn to parents for support. Prior research has found adolescents incur a boost in self-worth by engaging in a brief online communication with an unfamiliar peer,<sup>21</sup> thus supporting the paramount role of peers to adolescents' well-being. Identifying risks for loneliness or

TABLE 2. INDEPENDENT GROUPS *t*-TESTS COMPARING INDIVIDUALS WHO USE A SOCIAL NETWORKING SITE (SNS) WITH A PARENT TO THOSE WHO DO NOT

|                                 | <i>Do not use SNS</i> | <i>Use SNS</i>  | <i>df</i> | <i>t value</i> |
|---------------------------------|-----------------------|-----------------|-----------|----------------|
|                                 | M (SD)                | M (SD)          |           |                |
| Loneliness                      | 1.66 (0.49)           | 1.88 (0.65)     | 68.5      | -2.22*         |
| Attachment                      |                       |                 |           |                |
| Avoidance                       | 2.95 (1.22)           | 3.24 (1.04)     | 209       | -1.51          |
| Anxiety                         | 3.00 (1.13)           | 3.39 (1.22)     | 209       | -2.05*         |
| Parental relationship quality   |                       |                 |           |                |
| Satisfaction                    | 4.00 (0.99)           | 3.88 (0.92)     | 209       | 0.82           |
| Intimacy                        | 2.93 (1.21)           | 3.08 (1.10)     | 209       | -0.79          |
| Support                         | 3.58 (1.12)           | 3.62 (0.98)     | 209       | -0.22          |
| Instrumental aid                | 3.49 (0.99)           | 3.50 (0.93)     | 209       | -0.10          |
| Conflict                        | 1.92 (0.90)           | 2.25 (0.99)     | 209       | -2.26*         |
| Total communication with parent | 14.31 (4.32)          | 21.63 (4.80)    | 209       | -10.26***      |
| Miles to parents' home          | 176.76 (139.28)       | 210.86 (182.33) | 192       | -1.33          |

\* $p < 0.05$ ; \*\*\* $p < 0.001$ .

strategies that could decrease feelings of loneliness is a vital endeavor given its links to poorer physical and emotional health.<sup>22–25</sup>

Overall, our research suggests that constructs should be investigated in a longitudinal study so that directionality can be inferred. Ideally, adolescents would be assessed prior to starting college, and information from the parents (e.g., about the parents' own attachment style) also would be obtained. Given our small and homogenous sample, additional studies should be conducted to examine the generalizability of the results. Another weakness of our research is that students were not asked about their access to these various technologies, which has previously been found to vary by ethnicity, income, and gender.<sup>26</sup> Despite these limitations, the present study provides an initial glimpse into the interplay between communication technology and adjustment in today's young adults and generates many directions for future research.

### Disclosure Statement

No competing financial interests exist.

### References

- Sullivan K, Sullivan A. Adolescent–parent separation. *Developmental Psychology* 1980; 16:93–9.
- Bernier A, Larose S, Whipple N. Leaving home for college: A potentially stressful event for adolescents with preoccupied attachment patterns. *Attachment & Human Development* 2005; 7:171–85.
- Kenny ME. Family ties and leaving home for college: Recent findings and implications. *Journal of College Student Personnel* 1987; 28:438–42.
- Seiffge-Krenke I. Leaving home or still in the nest? Parent–child relationships and psychological health as predictors of different leaving home patterns. *Developmental Psychology* 2006; 42:864–76.
- Hu M. Rapid communication: Will online chat help alleviate mood loneliness? *CyberPsychology & Behavior* 2009; 12: 219–23.
- Reid DJ, Reid FJM. Text or talk? Social anxiety, loneliness, and divergent preferences for cell phone use. *CyberPsychology & Behavior* 2007; 10:424–35.
- Sum S, Mathews RM, Hughes I, et al. Internet use and loneliness in older adults. *CyberPsychology & Behavior* 2008; 2:208–31.
- van den Eijnden RJJM, Meerker, GJ, Vermulst AA, et al. Online communication, compulsive Internet use, and psychological well-being among adolescents: A longitudinal study. *Developmental Psychology* 2008; 44:655–65.
- Russell D, Peplau LA, Cutrona CE. The revised UCLA Loneliness Scale: Concurrent and discriminant validity evidence. *Journal of Personality & Social Psychology* 1980; 39:472–80.
- Fraley RC, Waller NG, Brennan KA. An item–response theory analysis of self-report measures of adult attachment. *Journal of Personality & Social Psychology* 2000; 78:350–65.
- Brennan KA, Clark CL, Shaver PR. (1998) Self-report measurement of adult attachment: An integrative overview. In Simpson JA, Rholes SW, eds. *Attachment theory and close relationships*. New York: Guilford Press, pp. 46–76.
- Furman W, Buhrmester D. Children's perceptions of the personal relationships in their social networks. *Developmental Psychology* 1985; 21:1016–24.
- Furman W, Buhrmester D. Age and sex differences in perceptions of networks of personal relationships. *Child Development* 1992; 63:103–15.
- Valkenburg PM, Peter J. Social consequences of the Internet for adolescents. *Current Directions in Psychological Science* 2009; 18:1–5.
- Korzenny F. A theory of electronic propinquity: Mediated communications in organizations. *Communication Research* 1978; 5:3–24.
- Chen Y, Katz JE. Extending family to school life: College students' use of the mobile phone. *International Journal of Human–Computer Studies* 2009; 67:179–91.
- Mikulincer M, Shaver PR. (2007) *Attachment in adulthood: Structure, dynamics, and change*. New York: The Guilford Press.
- Bowlby J. (1973) *Attachment and loss: Vol. 2. Separation: Anxiety and anger*. New York: Basic Books.
- Kobak R, Ferenz-Gillies R, Everhart E, et al. Maternal attachment strategies and emotion regulation with adolescent offspring. *Journal of Research on Adolescence* 1994; 4:553–66.
- Peplau LA, Perlman D. (1982) *Loneliness: A sourcebook of current theory, research, and therapy*. New York: Wiley.
- Gross EF. Logging on, bouncing back: An experimental investigation of online communication following social exclusion. *Developmental Psychology* 2009; 45:1787–93.
- Pressman SD, Cohen S, Miller GE, et al. Loneliness, social network size, and immune response to influenza vaccination in college freshmen. *Health Psychology* 2005; 24:297–306.
- Berkman, LF, Vaccarino V, Seeman T. Gender differences in cardiovascular morbidity and mortality: The contribution of social networks and support. *Annals of Behavioral Medicine* 1993; 15:112–18.
- Mendes de Leon CF, Gold DT, Glass TA, et al. Disability as a function of social networks and support in elderly African Americans and Whites: The Duke EPESE 1986–1992. *Journals of Gerontology: Series B. Psychological Sciences & Social Sciences* 2001; 56:S179–90.
- Trout DL. The role of social isolation in suicide. *Suicide & Life Threatening Behavior* 1980; 10:10–23.
- Junco R, Merson D, Salter DW. The effect of gender, ethnicity, and income on college students' use of communication technologies. *CyberPsychology, Behavior, & Social Networking* 2010; in press.

Address correspondence to:

Amy Gentzler  
 Department of Psychology  
 53 Campus Drive  
 Morgantown  
 WV 26506

E-mail: amy.gentzler@mail.wvu.edu