



Exploring the Relationship Between Technology Use and Family Functioning

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Abstract

As technology use continues to increase among adolescents, scholars are faced with the question of how technology use might influence a variety of contexts that adolescents experience, including family life. Research has found adolescent technology use to be linked to positive (e.g. strengthening family bonds; Williams & Merten, 2011) and negative (e.g. decreased family time; Stoneman, 2008) family outcomes. However, few studies have focused on how the type of technology used might be associated with family functioning. Moreover, many studies focusing on adolescent technology use to date have mostly used cross-sectional data.. Therefore, the goal of the present study was to explore the longitudinal relationship between different types of technology use and family functioning during adolescence.

Sample

- 1,036 14-19 year old adolescents (53% female; $M_{age} = 16.15$; $SD = .75$)
- 58% Caucasian, 23% African-American, 12% Hispanic, 2% Asian, 5% Other
- All adolescents were in 10th (58%) or 11th (42%) grade and were attending a public high school in DE, MD, or PA.

Measures

The Technology Use Questionnaire (Ohannessian, 2009)
The Technology Use Questionnaire is a nine-item measure used to assess frequency of technology use on an average day (watching television, talking on the phone, listening to music, texting, e-mailing/IMing, playing video games, using an iPod, surfing the web, and working on the computer). The response scale ranges from 1 = none to 6 = 4 or more hours.

Family Satisfaction Scale (FSS; Olson & Wilson, 1982)
The FSS is a 14 item survey designed to assess youths' satisfaction with their family. The FSS includes scales assessing family satisfaction, family cohesion, and family adaptability. A representative item is, "How satisfied are you with how close you feel to the rest of your family?" The response scale ranges from 1 = Dissatisfied to 5 = Extremely Satisfied.

Measures

Parent-Adolescent Communication Scale (PACS; Barnes & Olson, 1985)

The Parent Adolescent-Communication Scale includes 20 items and was used to assess communication between adolescents and their parents. A representative item is: "I am careful about what I say to my mother/father." The response scale ranges from 1 = strongly disagree to 5 = strongly agree.

Procedures

During the spring of 2007 (Time 1) and 2008 (Time 2), trained undergraduate and graduate students assisted in administering surveys to students who provided assent and had parental consent. The survey took approximately 40 minutes to complete. Throughout the study, the participants were made aware of their voluntary status and told that they could withdraw at any time. In addition, participants were assured that all of their answers would be kept confidential. Participants were compensated with a movie pass and were invited to participate again the following spring.

Results

Linear regression models were conducted to examine whether different types of technology use (assessed at Time 1) differentially predict family functioning (assessed at Time 2). These models were run separately by gender. For girls (see Table 1), talking on the phone predicted less cohesion ($\beta = -.15, p < .01$) and less communication with their fathers ($\beta = -.16, p < .01$). In addition, listening to music predicted less cohesion ($\beta = -.13, p < .05$) and less communication with fathers ($\beta = -.14, p < .05$). In contrast, text messaging predicted more communication with fathers ($\beta = .12, p < .05$) for girls. None of the models examining relationships between technology use and family variables were significant for boys (see Table 2).

Table 1

Linear Regression Results for Girls:
Predicting Family Functioning at Time 2 from Technology Use at Time 1

	Communication with Fathers	Communication with Mothers	Family Cohesion
Talking on the phone	-.16**	-.10	-.18***
Text messaging	.09	-.05	.06
E-mailing/IMing	-.05	-.03	.13*
Surfing the web	-.01	-.11	-.08

NOTE: Standardized beta coefficients presented.
* $p < .05$, ** $p < .01$, *** $p < .001$

Table 2

Linear Regression Results for Boys:
Predicting Family Functioning at Time 2 from Technology Use at Time 1

	Communication with Fathers	Communication with Mothers	Family Cohesion
Talking on the phone	-.03	.04	.03
Text messaging	-.05	-.11	-.08
E-mailing/IMing	.03	.01	.10
Surfing the web	-.05	-.03	-.04

NOTE: Standardized beta coefficients presented.
* $p < .05$, ** $p < .01$, *** $p < .001$

Discussion

Results from this study highlight the importance of considering the type of technology and gender when focusing on possible links between adolescents' technology use and family functioning. Findings suggest that technology use may be more salient for adolescent girls and their interactions with their families. Of note, significant relations between technology use and family functioning were found for the more social forms of technology. Moreover, these relations only were observed only for girls. Significant relations may not have been found for boys because they are less likely to use social forms of technology than are girls (Ohannessian, 2009). An important next step will be to examine underlying mechanisms that may account for these gender differences.