LIVING IN THE DIGITAL AGE

SELF-PRESENTATION, NETWORKING, PLAYING, AND PARTICIPATING IN POLITICS

**Pascaline Lorentz, David Smahel,
Monika Metykova, Michelle F. Wright (Eds.)**

INVESTMENTS IN EDUCATION DEVELOPMENT

Reviewers:

Dr. Christopher Barlett

Dr. Zaheer Hussain

Dr. Pablo Vicente Sapag Muñoz de la Peña

Dr. Kaveri Subrahmanyam

The Role of the Media and Cyber Context in Adolescents' Pursuit of Popularity

Michelle F. Wright

ABSTRACT

Although adolescents have fully embraced digital technology, little is known about how such technology might be used as a tool to promote their popularity among their peers, and whether utilizing technology to become more popular relates to their cyber social behaviors. Furthermore, little attention has been given to whether the media's encouragement of popularity-related activities has a role in adolescents' cyber social behaviors. To this end, this study examined the media's encouragement of popularity (i.e., social preference, perceived popularity) among adolescents and their usage of the cyber context to boost their popularity in relation to their cyber social behaviors. The participants were 817 seventh graders from the United States. Findings revealed that the media's encouragement of perceived popularity and adolescents' usage of the cyber context to be social and antisocial each related positively to cyber aggression perpetration. In addition, using the cyber context to be antisocial was linked negatively to cyber prosocial behavior. On the other hand, the usage of the cyber context to be prosocial was associated with cyber prosocial behavior. No other relationships were found among the variables examined in this study. The discussion highlights the important role of the media and technology in adolescents' lives.

INTRODUCTION

Early adolescents (ages 11–14) have some of the highest rates of cyber aggression. Therefore, attention has been dedicated to understanding the risk factors associated with the perpetration of these behaviors. Some literature has focused on the role of adolescents' peer status in their perpetration of cyber aggression

(e.g., intentionally humiliating, intimidating, or threatening someone who finds these behaviors offensive and disrespectful). Eder (1985) conceptualized peer status as consisting of adolescents' social positions within their peer group, and it can either consist of lower levels of peer status (i.e., rejection, unpopularity), average levels of peer status, or higher levels of peer status (i.e., high perceived popularity, high social preference). Findings from one of the few studies to examine this topic revealed that high perceived popularity was linked positively to cyber aggression perpetration, but it was related negatively to cyber prosocial behavior (Wright, 2014). On the other hand, Wright found that high social preference was associated positively with cyber prosocial behavior, and it had a negative relationship with cyber aggression perpetration. Despite these relationships, little attention has been given to whether the cyber context might be used as a tool to advance adolescents' peer status at school. Furthermore, the media might also serve a role in transmitting ideas about popularity to adolescents, which could then relate to their engagement in different cyber behaviors to either promote or enhance their peer status. To address these gaps in the literature, this study had two aims. For the first aim, adolescents' perceptions of the media's encouragement of being popular were examined in relation to their cyber social behaviors, including cyber aggression perpetration and cyber prosocial behavior. The second aim investigated the different ways that adolescents utilize the cyber context in an effort to become more popular among their peers at school, and whether using the cyber context in these ways relates to their engagement in cyber social behaviors.

POPULARITY AND CYBER SOCIAL BEHAVIORS

Researchers have conceptualized of two distinctive forms of popularity, including perceived popularity and social preference (Coie, Dodge, & Coppotelli, 1982; LaFontana & Cillessen, 2002). Perceived popularity refers to adolescents' reputational labeling of peer status rather than their likeability (Cillessen & Mayeux, 2004). Perceived popularity is characterized by social prestige and social centrality in the peer group, but these adolescents might not necessarily be liked by their peers. In contrast, social preference is an indicator of likeableness, and it is characterized by social acceptance (Coie et al., 1982). In the face-to-face context, each popularity type is differentially associated with aggression and prosocial behavior (e.g., behaviors that involve a concern for the welfare of others, and includes behaviors such as helping one's peers and cheering peers up when they feel down). Researchers have consistently found positive relationships between perceived popularity and relational aggression (e.g., harming another individual by damaging their relationships or peer status, rumor spreading, friendship manipulation, and ostracism) (Crick & Grotpeter, 1995). This research has also

found negative relationships between social preference and relational, and overt forms (e.g., aggression in which the adolescent causes physical harm, verbal harm, and/or destruction of a peer's property) of aggressive behaviors (LaFontana & Cillessen, 2002; Prinstein & Cillessen, 2003). Social preference is associated with prosocial behavior, but the relationship of perceived popularity to prosocial behavior is more mixed, with some studies finding positive associations and others finding negative relationships.

Despite adolescents' high technology consumption, little is known about the relationship of both popularity types to aggressive and prosocial behavior in the cyber context. The necessity for such research is even more important as the association of perceived popularity and social preference with aggression and prosocial behavior becomes stronger in adolescence (Cillessen & Mayeux, 2004; Xie et al., 2002). Thus, adolescents' high technology usage coupled with their desire to pursue a high peer status might lead them to utilize these technologies to help advance their social standing. Few studies have focused on the role of popularity in adolescents' social behaviors in the cyber context. Similar to the relationships found in the face-to-face context, these studies reveal that perceived popularity is related positively to cyber aggression perpetration (Schoffstall & Cohen, 2011; Wright, 2014). Less attention has been given to cyber prosocial behavior and social preference, and the only study to investigate these variables found similar results as the face-to-face context. In particular, cyber prosocial behavior was associated positively with social preference, and social preference was related negatively to cyber aggression perpetration (Wright, 2014). This study also found that perceived popularity was not linked to cyber prosocial behavior. Although these studies provide a foundation for understanding the association between popularity types and cyber social behaviors, nothing is known about whether adolescents utilize technologies to become more popular within their peer group. In the literature on the face-to-face context, research links children's and adolescents' perceptions of what makes a girl or a boy popular to their aggressive behaviors. Xie et al. (2006) found that children and adolescents who believed that deviance contributed to popularity had higher ratings of aggression as reported by teachers and peers. Thus, it might be reasonable to expect that adolescents' perceptions of their activities in the cyber context contribute to their popularity and relate to their cyber social behaviors.

MEDIA AND CYBER SOCIAL BEHAVIORS

The media has been implicated as impacting a variety of adolescent behaviors, including smoking, cooperation with police, sexuality, and eating (Dirikx & Van den Bulck, 2014; Mastronardi, 2003; Tanski, Stoolmiller, Gerrard, & Sargent,

2012; McCabe, Ricciardelli, & Finemore, 2002). The effect of violent media content on adolescents' behaviors and attitudes is perhaps one of the most controversial topics in this research area (Brown & Bobkowski, 2011). The results of longitudinal studies do link aggressive behaviors in emerging adulthood to childhood and adolescent exposure to violent television content (Huesmann, Moise-Titus, Podolski, & Eron, 2003; Johnson, Cohen, Smailes, Kasen, & Brook, 2002). Intervention efforts have also indicated that aggression was lower among third and fourth graders who participated in a six-month program designed to reduce television viewing (Robinson, Wilde, Navracruz, Haydel, & Varady, 2001). Other research focuses on violent video games as another type of media which impacts aggressive behaviors. The research on this topic indicates that exposure to violent media content through aggressive video game play relates to aggression and violence in the real world and through electronic technologies (Anderson, Gentile, & Buckley, 2007). Such linkages occur across experimental, longitudinal, and correlational studies, and among different samples, including children, adolescents, and adults (Gentile et al., 2009). Although the media might impact adolescents' behaviors and attitudes, it is unclear whether it might also play a role in their pursuit of social standing in the peer group. The media might transmit ideas about popularity to adolescents, and these ideas might become internalized and serve as a foundation for the types of behaviors and characteristics which lead to popularity in the peer group.

PRESENT STUDY

This present study had two goals: to address gaps in the literature concerning the role of the media and the cyber context in adolescents' pursuit of popularity, and their relationship to adolescents' cyber social behaviors. For the first goal, the pressure to be popular conveyed to adolescents by the media was examined in relation to cyber social behaviors, including cyber aggression perpetration and cyber prosocial behavior. The second goal investigated the cyber behaviors and characteristics adolescents associated with being more popular in their peer group, and how these perceptions were related to their cyber social behaviors.

It was hypothesized that the media's encouragement of adolescents to be perceived as popular would relate positively to cyber aggression perpetration and relate negatively to cyber prosocial behavior. Opposite patterns were expected for the media's encouragement of social preference. Such encouragement would negatively relate to cyber aggression perpetration and be positively associated with cyber prosocial behavior. Although the literature is not yet available on the cyber behaviors and characteristics adolescents associated with popularity in their peer group, some hypotheses were generated to guide this second

aim. Guided by the research on perceived popularity and social preference, it was expected that more negative behaviors would be associated with cyber aggression perpetration, whereas more positive behaviors, linked more with social preference, would relate to cyber prosocial behavior (LaFontana & Cillessen, 2002; Prinstein & Cillessen, 2003).

METHODS

Participants
The participants were 817 seventh graders from seven large middle schools (grades 6–8) in the Midwestern United States. There were 412 girls and 405 boys included in the study. Ages ranged from 11–13, with a mean age of 12.19.

Procedures
Emails were sent to principals of 10 middle schools, which described the study, what students would be expected to do, and the importance of students' participation. Of the 10 principals, seven responded that they were interested in having their school be part of the study. A meeting was set up with the principals and seventh grade teachers. In the meeting, the purpose of the study and what adolescents would be expected to do if they were to participate was discussed. That same day, classroom announcements were made and the adolescents were sent home with a parental permission slip. Of the parental permission slips sent home, 817 came back with consent.

Data collection took place over six weeks. Before the measures were administered, adolescents provided their assent to participate in the study. None refused to participate and only six were absent on the initial day of data collection. The three schools with missing students each had one make-up day, and all six missing students filled out the questionnaires on this day.

The measures were administered in the following order: demographic information questionnaire (e.g., age, gender), self-reported cyber aggression perpetration, the pressure they felt to be popular from the media (i.e., Popularity Pressure Conformity Measure), and what makes someone popular with their peers (i.e., Popularity Perceptions Measure).

Measures

Self-Reported Cyber Social Behaviors
Adolescents rated thirteen items concerning how often they engaged in cyber aggression perpetration (nine items; e.g., Spread untrue and bad rumors about

another peer online or through text messages) and cyber prosocial behavior (four items; e.g., Cheer other peers up online or through text messages) on a scale of 1 (*not at all*) to 5 (*all of the time*) (Wright, 2014). Cronbach's alphas were .91 for cyber aggression perpetration and .86 for cyber prosocial behavior.

Popularity Pressure Conformity

Before completing this measure, adolescents read a description of social preference and perceived popularity. This measure asked adolescents how much pressure they felt to be popular by the media (e.g., television, magazines, and books). The following stem was included for all items: "The media (e.g., television, magazine, books) encourages me to… in order to be popular." Adolescents picked how often the media encouraged them to be socially preferred (two items; e.g., be nice to my peers so that I can be popular) or perceived as popular (three items; e.g., wear certain clothes so that I can be popular). Adolescents rated the five items on a scale of 1 (*totally untrue*) to 5 (*totally agree*). The media's encouragement of perceived popularity had a Cronbach's alpha of .88 and social preference had a Cronbach's alpha of .83.

Popularity Perceptions

This measure described behaviors or characteristics that were carried out to make someone popular with their peers at school. All the behaviors and characteristics were oriented to the cyber context. Adolescents rated 21 items on a scale of 1 (*very unpopular*) to 5 (*very popular*). There were four scales for this measure, including sociability (six items; e.g., receiving a lot of text messages), antisocial (six items; e.g., calling peers mean names online or through text messages), prosocial (four items; e.g., helping peers out online or through text messages), and technology access (five items; e.g., having access to all the latest electronic technologies). Cronbach's alphas were .89 for sociability, .90 for antisocial, .90 for prosocial, and .86 for technology access.

RESULTS

Correlations among Cyber Social Behaviors and Popularity Pressure

Table 1 displays the results of the pressure to be popular from the media in relation to cyber aggression perpetration and cyber prosocial behavior. Results indicate that the pressure to be perceived as popular from the media is related positively to cyber aggression perpetration. However, the pressure to be socially preferred from the media is not associated with either cyber aggression perpetration or cyber prosocial behavior.

Table 1

Relationships among cyber social behaviors and popularity pressure from the media.

	1	2	3	4
1. Media – Perceived Popularity	---			
2. Media – Social Preference	.39***	---		
3. Cyber Aggression Perpetration	.31***	-.04	---	
4. Cyber Prosocial Behavior	-.01	.10	-.02	---

*** $p < .001$.

Correlations among Cyber Social Behaviors and Popularity Perceptions

Table 2 presents the correlations among cyber social behaviors and the four factors of popularity perceptions. The factors of sociability and antisocial were related positively to cyber aggression perpetration. The sociability factor was associated positively with cyber prosocial behavior. The antisocial factor was related negatively with cyber prosocial behavior. On the other hand, the prosocial factor was associated negatively with cyber aggression perpetration, but it was related positively to cyber prosocial behavior. The technology factor was not associated with any type of cyber social behavior.

Table 2

Relationships among cyber social behaviors and popularity perceptions.

	1	2	3	4	5	6
1. Sociability	---					
2. Antisocial	.46***	---				
3. Prosocial	.25***	-.26***	---			
4. Technology Access	.54***	.21***	.27***	---		
5. Cyber Aggression Perpetration	.14*	.34***	-.21**	-.10	---	
6. Cyber Prosocial Behavior	.20*	-.23***	.31***	.09	-.02	---

* $P < .05$. ** $P < .01$. *** $P < .001$.

DISCUSSION

This study investigated adolescents' perceptions of popularity and the popularity pressure they felt from the media in relation to their cyber social behaviors, including cyber aggression perpetration and cyber prosocial behavior. Results from this study contribute to a growing body of literature on the role of the media and the cyber context in adolescents' social standing among their peers. Furthermore, the present study also provides some additional understanding

to how out-of-school activities, like the media, the internet, and mobile phones, impact in-school behaviors and the pursuit of popularity.

Supporting the study's hypotheses, findings from the present study suggest that the media does have a role in pressuring adolescents to pursue perceived popularity, and that this pursuit relates to cyber aggression perpetration. Such findings are consistent with the literature, revealing linkages between cyber aggression perpetration and perceived popularity (Schoffstall & Cohen, 2011; Wright, 2014). The results concerning the media's encouragement of social preference are not too clear as no relationships were found between this form of popularity and either of the cyber social behaviors. Wright (2014) found that social preference was related positively to cyber prosocial behavior and associated negatively with cyber aggression perpetration. Thus, it was expected that the pressure to be socially preferred would relate positively to cyber prosocial behavior. A possible explanation for the non-significant findings might be that the media does not always encourage adolescents to behave in certain ways to become socially preferred in their peer group. The media might focus more on encouraging adolescents to pursue perceived popularity as it is the most socially central and highly visible form of popularity (Parkhurst & Hopmeyer, 1998). Therefore, ideas about the conformity to be popular might include more aggressive behaviors rather than prosocial behavior.

Another important contribution of the present study is the finding concerning the cyber behaviors and characteristics adolescents associated with popularity in the peer group, and their associations with cyber social behaviors. The factors of sociability and antisocial behaviors were both related positively to cyber aggression perpetration. The antisocial factor encompassed more aggressive behaviors and the sociability factor included characteristics that represented being socially central, both of which are characteristics of perceived popularity (LaFontana & Cillessen, 2002; Prinstein & Cillessen, 2003). Therefore, the linkages of these two factors to cyber aggression perpetration are not surprising as these factors represent two core elements of perceived popularity. The antisocial factor was related negatively to cyber prosocial behavior, whereas the sociability factor was associated positively with this behavior. In the literature, some studies find that there are positive relationships between perceived popularity and prosocial behavior, whereas others reveal a negative relationship (Parkhurst & Hopmeyer, 1998; Prinstein & Cillessen, 2003). Perhaps, differences in such findings in the literature might be attributed to adolescents' perceptions of the different functions of popularity-related behaviors. In particular, sociability might relate to prosocial behavior among adolescents, whereas antisociability might not. Due to these

perceptions, some adolescents might believe that perceived popularity is more related to sociability, and others might view this form of popularity as being more linked to antisociability, which could potentially contribute to their differential endorsement of prosocial behavior. Using technology to act prosocially in order to become more popular was hypothesized to be more related to social preference than to perceived popularity (Parkhurst & Hopmeyer, 1998). Thus, it was not surprising that the prosocial factor was associated negatively with cyber aggression perpetration, and positively related to cyber prosocial behavior. The technology factor was not associated with either form of cyber social behavior. This was surprising, as spending power relates to popularity (Adler & Alder, 1998). However, the literature does not indicate whether the characteristics associated with popularity are differentially related to social behavior. That is, it might be that spending power or having access to the best technology is related to popularity, but that it is not associated with aggressive or prosocial behaviors.

Future Directions and Limitations

This study provided an initial investigation of the media's and the cyber context's role in adolescents' popularity among their peer group. However, there are a few futures directions and limitations that should be noted to advance the field's knowledge of this topic. For instance, more research should be undertaken utilizing interviews and focus groups to understand the media's pressure on adolescents to be popular, and whether such pressures convey messages that are associated with different forms of popularity. This is especially important when it comes to social preference as there were no significant relationships between this type of popularity and any cyber social behavior. A fruitful step for this research might be to content-analyze various teen television shows, magazines, and books to understand the extent to which popularity themes are conveyed in these sources, and to differentiate these themes based on the popularity subtypes.

One limitation of this research was that the analyses relied solely on bivariate correlations. The present study was conducted concurrently, which does not allow for an understanding of the longitudinal relationships examined in this study. Such a method will allow for a better understanding of the developmental significance of the media's effects on children's and adolescents' pursuit of popularity. Follow-up research should incorporate longitudinal designs in order to understand the temporal ordering of these relationships. For example, this research design might be able to identify an age in which children are most exposed to the media's endorsement of popularity, and whether such endorsement relates to popularity. It also might be likely that children and adolescents who are already popular seek out media with messages endorsing the pursuit of popularity. Therefore, more

advanced techniques should be used in order to control for adolescents' current perceived popularity and social preference.

CONCLUSION

The present study provides one of the first investigations aimed at understanding the media's popularity pressure and adolescents' perceptions of utilizing the cyber context to boost popularity. Furthermore, it is one of the first studies to examine adolescents' perceptions and popularity pressure in relation to cyber social behaviors. Such examinations are important as researchers are recognizing the prominence of the media and technology in adolescents' lives, and thus such tools might be used to facilitate their social standing among their peers at school. The present study revealed that adolescents feel pressure to be popular, particularly perceived popularity, from the media and that this pressure relates to cyber aggression perpetration. In addition, results also suggest that adolescents utilize the cyber context to become more popular in their peer group at school, and that the different ways they use technologies relate to their cyber social behaviors. This study has implications for clinicians and researchers concerned with identifying adolescents at risk for cyber aggression perpetration as well as those individuals interested in helping to promote positive interactions in the cyber context.

ACKNOWLEDGMENTS

REFERENCES

Adler, P., & Adler, P. (1998). *Peer power: Preadolescent culture and identity*. New Jersey: Rutgers University Press.

Anderson, C. A., Gentile, D. A., & Buckley, K. E. (2007). *Violent video game effects on children and adolescents: Theory, research, and public policy.* New York, NY: Oxford University Press.

Brown, J. D., & Bobkowski, P. S. (2011). Older and newer media: Patterns of use and effects on adolescents' health and well-being. *Journal of Research on Adolescence, 21(1),* 95–113.

Cillessen, A., & Mayeux, L. (2004). From censure to reinforcement: Developmental changes in association between aggression and social status. *Child Development, 75(1),* 147–163.

Coie, J. D., Dodge, K. A., & Coppotelli, H. (1982). Dimensions and types of social status: A cross-age perspective. *Developmental Psychology, 18,* 557–570.

Crick, N. R., (1996). The role of overt aggression, relational aggression, and prosocial behavior in the prediction of children's future social adjustment. *Child Development, 67,* 2317–2327.

Crick, N. R., & Grotpeter, J. K. (1995). Relational aggression, gender, and social psychological adjustment. *Child Development, 66,* 710–722.

Dirikx, A., & Van den Bulck, J. (2014). Media use and the process-based model for police cooperation: An integrative approach towards explaining adolescents' intentions to cooperate with the police. *British Journal of Criminology, 54*(2), 344–365.

Eder, D. (1985). The cyber of popularity: Interpersonal relations among female adolescents. *Sociology of Education, 58*(3), 154–165.

Eisenberg, N., & Miller, P. (1987).The relation of empathy to prosocial and related behavior. *Psychological Bulletin, 101(1),* 91–119.

Gentile, D. A., Anderson, C. A., Yukawa, S., Ihori, N., Saleem, M., Ming, L. K., & Sakamoto, A. (2009). The effects of prosocial video games on prosocial behaviors: International evidence from correlational, experimental, and longitudinal studies. *Personality & Social Psychology Bulletin, 35,* 752–763.

Huesmann, L. R., Moise-Titus, J., Podolski, C., & Eron, L. D. (2003). Longitudinal relations between children's exposure to TV violence and their aggressive andviolent behavior in young adulthood: 1977–1992. *Developmental Psychology, 39,* 201–221.

Johnson, J. G., Cohen, P., Smailes, E. M., Kasen, S., & Brook, J. S. (2002). Television viewing and aggressive behavior during adolescence and adulthood. *Science, 295,* 2468–2471.

LaFontana, K. M., & Cillessen, A. H. (2002). Children's perceptions of popular and unpopular peers: A multimethod assessment. *Developmental Psychology, 38*, 635–647.

Mastronardi, M. (2003). Adolescence and media. *Journal of Language and Social Psychology, 22*(1), 83–93.

McCabe, M. P., Ricciardelli, L. A., & Finemore, J. (2002). The role of puberty, media and popularity with peers on strategies to increase weight, decrease weight and increase muscle tone among adolescent boys and girls. *Journal of PsychosomaticResearch, 52*(3), 145–153.

Parkhurst, J. T., & Hopmeyer, A. (1998). Sociometric popularity and peer-perceivedpopularity: Two distinct dimensions of peer status. *Journal of Early Adolescence, 18*, 125–144.

Prinstein, M. J., & Cillessen, A. H. (2003). Forms and functions of adolescent peeraggression associated with high levels of peer status. *Merrill-Palmer Quarterly, 49*(3), 310–342.

Robinson, T. N., Wilde, M. L., Navracruz, L. C., Haydel, K. F., & Varady, A. (2001).Effects of reducing children's television and video game use on aggressive behavior: A randomized controlled trial. *Archives of Pediatric and Adolescent Medicine, 155,* 17–23.

Schoffstall, C. L., & Cohen, R. (2011). Cyber aggression: The relation between online offenders and offline social competence. *Social Development, 20,* 587–604.

Wright, M. F. (2014). Longitudinal investigation of the associations between adolescents' popularity and cyber social behaviors. *Journal of School Violence, 13,* 291–314.