

The Development of a Social Media Behavior Scale

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Abstract

The primary reason for using social media is to keep in touch yet it is unclear whether online interactions can yield benefits relating to social connectedness. To address this issue, we developed a scale that measures both positive and negative online behaviors. The reliability and validity of the Social Media Behavior Scale was tested in three diverse samples, with ages ranging from 18 to 40. The 21-item scale showed good internal reliability as measured by Cronbach's alpha and significant within-construct correlations between the five subscales: social connectedness, making friends, prosocial, antibully, and antagonism. Convergent validity was determined by the relationship between the Social Media Behavior Scale and the General Belongingness Scale and the Social Networking Adoption Scale. The Social Media Behavior Scale was significantly related to the sense of online community, even with age partialled out. Criterion validity was established by looking at the predictive relationship between the Social Media Behavior Scale and measures of prosocial and addictive online behaviors. The findings suggest that this scale is a psychometrically sound tool to measure online behaviors.

Keywords: social media; connectedness; altruism; social media addiction; prosocial

Introduction

Social media is a ubiquitous part of our lives, with approximately two-thirds of US adults reportedly using it. Facebook is the most popular platform among all demographic groups and is used by 68% Americans, compared to 35% and 27% of reported users for Instagram and Snapchat, respectively (Pew, 2018), primarily to keep in touch (Pew, 2011). However, do we derive similar benefits from social connectedness online compared to face-to-face interactions? In order to address this question, we developed a scale that measures both positive and negative online behaviors that are related to social connectedness.

According to Lee, Draper, and Lee (2001), social connectedness is defined as an individual's cognitive sense of feeling connected with others. Women tend to be more concerned than men in their expression and maintenance of social connection (Lee, Keough, & Sexton, 2002), which may be linked to physiological differences in the oxytocin alleles (Chang et al., 2014). Previous research looking into gender and age differences in social media behaviors found that young women (18-29-year-olds), compared to women over the age of 29 are more active on social media and typically post more pictures of themselves, whether they appear as an individual, with a partner, or in a group (Dhir, Pallesen, Torsheim, & Andreassen, 2016). They are also more likely to engage in connective behaviors, such as adding more hashtags to their posts to gain more likes (Nelson, 2013). While these behaviors are consistent with a need to present themselves in a socially desirable way (Manago, Graham, Greenfield, & Salimkhan, 2008), it is unclear whether this active online

engagement results in a greater sense of social connectedness. In contrast, older adults with positive attitudes towards Facebook reported more social connectedness compared to younger adults (Grieve & Kemp, 2015). When there is a greater degree of relatedness between the recipient and the helper, prosocial behaviors online, such as helping others, may occur. For example, Ma and Chan (2014) found that online attachment had a significant effect on online knowledge sharing behavior, which was related to altruism, in high school students. Although altruism has been defined in a variety of ways, a consistent theme is that it is an ethical construct where an individual does something for the benefit of others rather than the self (Furnham, Treglown, Hyde, & Trickey, 2016). Typically, altruistic behaviors are done privately and without recognition. However, social media is a public platform and online behaviors (i.e., posting, commenting, or liking posts) are highly visible. An example of how Facebook was used to motivate prosocial behavior for the benefit of others was the Ice Bucket Challenge for the ALS Association in 2014. Participation in this challenge was voluntary and involved pouring a large bucket of ice water over an individual's head, followed by a monetary donation to the ALS Association. The result was over 2.4 million tagged videos on Facebook and an unprecedented number of new donors (ALS website). There are age differences in prosocial behaviors. Generally, older adults are more likely to donate money than younger adults, however financial stability is a contributing factor (Freund & Blanchard-Fields, 2014). In contrast, younger adults participate more in

community service, but this pattern could be driven by a heightened focus on community service hours in high school (Wray-Lake, Schulenberg, Keyes, & Shubert, 2017). With respect to prosocial behaviors online, Paulin, Ferguson, Schattke, and Jost (2014) found that creating an empathetic identification with a cause is more likely to gain millennial's support. This behavior fits with the empathy-altruism hypothesis that altruism is a motivated behavior with the goal of benefitting an individual with whom empathy is felt (Persson & Kajonius, 2016). A lack of social connectedness can lead to negative behaviors, such as bullying and antagonism. Responses from almost 1000 students indicated that feeling less connected to their peers significantly predicted reports of being bullied (Skues, Cunningham, & Pokharel, 2005). Indeed, Johnson et al. (2002) found that social interactions can significantly affect whether a child is victimized by their peers, and those with fewer prosocial behaviors were more vulnerable. More worryingly, lower levels of social connectedness were associated with increased severity of bullying involvement and increased suicide risk (Arango, Opperman, Gipson, & King, 2016). There may be age-related differences in the value of social connectedness. Allen, Ryan, Gray, McInerney, and Waters (2014) suggest that adolescence is a critical period for developing psychosocial wellbeing, and a lack of assimilation with peers could lead to anxiety and depression. Given that approximately 41% of Americans have personally experience cyberbullying (Pew, 2017), it was an important feature to include in our Social Media Behavior Scale, particularly in light of the potential negative consequences. Another negative behavior that can arise from a lack of social connectedness is a sense of increased antagonism. The Social Media Behavior Scale captures antagonism in the context of political and social issues, given the growing use of Facebook as a news venue as almost half of Americans receive their news it (Pew, 2018b). Political views are thought to be harder to change than facts (e.g., the invention of the lightbulb) because they deeply connected with our sense of social identity (Kaplan, Gimble, & Harris, 2016). Despite this, there is a tendency to denigrate someone with an opposing view (see Schroeder, Kardas, and Epley, 2017). While social media addiction is not included in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), some researchers have suggested that compulsive social media use is a

growing mental health problem (Van Rooij & Schoenmakers, 2013). In an effort to address this growing concern, Van Den Eijnden, Lemmens, and Valkenburg (2016) developed a social media disorder scale to capture maladaptive online behaviors that hinder social relationships.

1.1 The present study

The aim of the present study was to develop and validate a scale to measure Social Media Behaviors. Our starting point was to create items that capture social connectedness online through behaviors such as liking or commenting on others posts or making posts about the self with the intention of keeping friends and family updated. Positive behaviors associated with social connectedness include prosocial behaviors, while negative behaviors include antagonism and bullying. Potential items to be included in the Social Media Behavior Scale were constructed based on positive behaviors, such as social connectedness (12 items) and prosocial behaviors (11 items), and negative behaviors, such as starting arguments and bullying (six items). All 29 items were placed on a 4-point Likert-type rating choice format (*Never, Sometimes, Often, or Always*). After testing the factor structure and factor loadings of this 29-item scale, the items with the highest factor loading per criterion were selected to constitute the final scale. Next, the psychometric properties of this scale were tested. We examined reliability and convergent validity, by comparing responses to the Social Media Behavior Scale with existing tests of social connectedness, like the Social Connectedness Scale and the General Belongingness Scale. We also investigated criterion validity using tests that measure altruism and addictive behaviors. The psychometric properties of the Social Media Behavior Scale were investigated in three samples, and tested for individual differences in gender and age (millennial vs non-millennial).

2. Materials and Methods

2.1 Participants

	Group 1 (n=118)	Group 2 (n=131)	Group 3 (n=105)
Male	11.8	16	61
Female	88.2	84	39
Age: 18-20	53.8	2.3	2.9
Age: 21-23	30.3	10.7	5.7
Age: 24-26	5.0	19.8	12.4
Age: 27-30	6.7	5.3	22.9
Age: 31-40	3.4	14.5	29.5
Age: 41-50	--	29.8	16.2
Age: 51-60	--	10.7	6.7
Age: 61+	--	6.9	3.8
Ethnicity			
White	71.4	93.9	60.0
Black or African American	13.4	0.8	5.7
American Indian or Alaska Native			6.7
Asian	9.2	3.1	24.8
Native Hawaiian or Pacific Islander	1.7	1.5	
Other	4.2	0.8	2.9
Highest education level			
GED/ High School Diploma	0.8	9.9	20.0
Some college	63.9	9.9	5.7
2-year college degree	27.7	9.9	15.2
4-year college degree	7.6	50.4	39.0
Master's Degree		17.6	18.1
Doctoral Degree		2.3	1.9

Social Media Platforms			
Facebook	0.8	6.9	9.5
Twitter		1.5	2.9
Instagram	2.5	3.1	1.9
Pinterest		7.6	1.9
YouTube	5.0	12.2	32.4
WhatsApp	1.7	13.7	21.9
Snapchat	71.4	44.3	20.0
Other	18.5	10.7	9.5

Table 1. Participant Demographics (%)

Data were collected from three groups of adults who were 18 and older, and who had an active social media account ($n=354$, see Table 1 for demographic details). Of the respondents across all three groups, 76% were Caucasian, 6.5% were African American, 2% were American Indian or Alaska Native, 11% were Asian, 1% were Native Hawaiian or Pacific Islander, and 2% self-identified as 'Other'. Of these, 1% reported their highest level of education as a doctoral degree, 11% had a master's, 32% had a four-year college degree, 17% had a two-year college degree, 26% were still in college, and 9% had a GED or high school education. Group 1 comprised of 118 college students (53% between 18-20 years of age; 88% females), who participated in this study in exchange for college credit. Group 2 comprised of participants collected via Facebook and were not compensated for their participation. Participant demographics consisted of 131 volunteers, aged between 18-61+ years (52% between 18-40 years of age; 84% females). Group 3 comprised of a non-college sample, who were members of the Amazon Mechanical Turk (mTurk) survey system. The 105 volunteers were aged between 18 and 61 years (73% between 18-40 years of age; 61% females) and participated in exchange for payment. All participants completed the surveys online at their own computer in a single sitting, lasting between 10-20 minutes.

2.2 Measures

Social Connectedness. The extent to which respondents felt connected with others was assessed using the 20-item Social Connectedness Scale-Revised (Lee et al., 2001). There are 10 positively worded items and 10 negatively worded items. An example of a positively worded item is: "I feel understood by the people I know." Items were assessed on a 4-point scale, ranging from (1) strongly disagree for less connection to (4) strongly agree for greater connection. The negatively worded items were reverse scored and added with positive items for a total score, with a range from 20 to 120. Higher scores reflect a greater sense of social connectedness. Cronbach's alpha was 0.94. The 13-item General Belongingness Scale (Malone et al., 2012) was also included. Respondents were asked: "When I am with other people I feel like a stranger" (reverse scored). Items were assessed on a 4-point scale ranging from (1) strongly disagree for less belonging to (4) strongly agree for a greater sense of belonging. Negatively worded items were reverse scored.

Scores ranged from 13 (low sense of belonging) to 52 (high belonging). Cronbach's alpha was 0.92. In order to measure why people use social networking sites, we included four statements from the Community subscale from the Social Networking Adoption Scale (Usluel, Kokoç, Çıralı Sarıca, & Mazman, 2016). An example item is: "I create groups on Facebook with individuals who have common interests and needs with me." Response categories ranged from (1) strongly agree to (4) strongly disagree, with a minimum score of four and a maximum of 16. Cronbach's alpha was 0.85 *Prosocial behavior.* The nine-item Altruism Scale (Clark, Kotchen, & Moore, 2003) measured participation in altruistic behaviors. Participants were assessed on a 4-point scale ranging from (1) strongly disagree for less altruistic behaviors to (4) strongly agree for more altruistic behaviors, for questions such as "It is my duty to help other people when they are unable to help themselves." Scores ranged from 9 to 36. Cronbach's alpha was 0.70. *Maladaptive behavior.* The nine-item version of the Social Media Disorder Scale (Van Den Eijnden, Lemmens, & Valkenburg, 2016) measured the frequency of self-reported social media disorder symptoms. A sample item is: "In the past year have you regularly had arguments with you family members because of your social media use." Participants rated the degree to which they experienced social media disorder symptoms during the past year on a 4-point scale with a selection of (1) *strongly disagree* to (4) *strongly agree*. The total possible points were 36 and a diagnostic cutoff score of 18 or higher indicating social media disorder. Cronbach's alpha was 0.80

2.3 Data analysis

Data analysis was performed as follows. Firstly, an Exploratory Factor Analysis (EFA) was conducted to determine the factor structure of the Social Media, separately for each of the three groups, and then for the whole sample. Second, internal consistency reliability coefficient (Cronbach's alpha) for each factor were estimated. Finally, correlational and regression analyses were conducted to further validate the evidence.

3. Results

3.1 Content reliability

	SC	Antibully	Friends	Prosocial	Antagonism
I feel that I should make a social media post when a new event happens in my life so that others can be updated on what is going on with me.	.74				
I feel that frequently updating my personal information on social media keeps me connected with others.	.74				
I feel disconnected from the world if I haven't been on social media in a while.	.72				
I feel more connected to my social media friends when I like or comment on their posts.	.69				
My life feels incomplete when no one likes my social media post.	.62				
I feel that social media is a great way to help others in their daily lives.	.61				
I feel less connected with others if I don't frequently post about my day-to-day life.	.57				
I find myself frequently commenting on others' posts on social media	.57				
I find myself actively involved in others' posts on social media.	.48				
I feel obligated to respond when I see someone is being bullied on social media		.79			
I worry about what will happen if I don't intervene when someone is being bullied on social media.		.73			
I feel I must say something positive when I see a rude comment on someone's status.		.57			
I feel it is my duty to leave encouraging comments on others' social media posts.		.47			
I accept friend requests from people I don't know to make more connections.			.85		
I accept friend requests from people I don't know to feel connected to more people.			.81		
I feel that social media is a good method to make new friends.			.52		
I join different groups on social media for the connections more than the activity itself.			.46		
I worry about others' self-esteem if I don't like their selfie post.				.70	
I think liking someone's post will greatly improve their life.				.67	
I think liking someone's post will greatly improve their day.				.64	
I enjoy starting controversial arguments on social media.					-.79
When I see someone post about political opinions that differ from mine, I feel inclined to make my opinion heard as well.					-.75

Table 2: Factor loadings > .45 from the Principal Components Analysis for the whole sample (n=355)

The data were screened for univariate outliers. No individual's score deviated greater or less than three standard deviations from the sample mean. The factor structure of all 29 item was tested independently in all three groups, using a principal components analysis (Quartimax rotation). Based on the correspondence of loadings across in the pattern matrix across all three groups, seven items were eliminated. These items also were excluded based on incongruence with the conceptual definitions of the relevant factors. A second principal components analysis run on the revised 22 items on the whole sample yielded a five-factor solution. The five factors explained 59.17% of the variance and factor loadings ranged between .48 to .85 (see Table 2). Only one item double-loaded on two factors (factor loading = .45) and following common practice, the decision was made to retain the item in the higher loaded factor. Cronbach's alpha for the whole sample was 0.86 ($M = 1.97$; $SD = .39$); for Group 1 (College sample) it was 0.86; for Group 2 (Facebook sample) it was 0.84; and for Group 3 (mTurk sample) it was 0.87. The first factor

was labeled as *Social Connectedness* and comprised of nine items addressing aspects of social media connectedness such as "I feel less connected with others if I don't frequently post about my day-to-day life". Cronbach's alpha was 0.85 ($M = 1.89$; $SD = .53$). The second factor captured four antibullying statements, such as "I feel obligated to respond when I see someone is being bullied on social media". Cronbach's alpha was 0.72 ($M = 1.93$; $SD = .57$). The third factor included four statements related to making friends, such as "I feel that social media is a good method to make new friends". Cronbach's alpha was 0.77 ($M = 1.64$; $SD = .58$). Factor 4 was identified with three prosocial statements; an example item is, "I worry about others' self-esteem if I don't like their selfie post". Cronbach's alpha was 0.77 ($M = 1.64$; $SD = .64$). Two statements made up Factor 5 (*Antagonism*) with statements such as, "When I see someone post about political opinions that differ from mine, I feel inclined to make my opinion heard as well". Cronbach's alpha was 0.68 ($M = 3.54$; $SD = .39$).

	1	2	3	4	5	6	7	8	9
1. Social Connectedness Scale	1	-.40**	-.04	-.00	-.00	.03	-.04	-.09	.16
2. General Belongingness Scale	-.41**	1	.09	.09	.10	.07	.03	.11*	-.10
3. Social Networking Adoption Scale – Community items	.01	.07	1	.53**	.44**	.35**	.55**	.40**	-.32**
4. Social Media Behavior Scale (SMBS) - Total	-.02	.10	.49**	1	.91**	.70**	.73**	.75**	-.35**
5. SMBS –Social Connectedness	-.02	.10	.41**	.90**	1	.51**	.56**	.58**	-.41**
6. SMBS - AntiBully	.03	.06	.35**	.69**	.50**	1	.38**	.44**	-.32**
7. SMBS – Making Friends	-.07	.04	.49**	.73**	.56**	.37**	1	.51**	-.40**
8. SMBS - ProSocial	-.08	.11*	.39**	.74**	.58**	.42**	.51**	1	-.34**
9. SMBS - Antagonism	.13*	-.09	-.34**	-.33**	-.41**	-.32**	-.37**	-.34**	1

Table 3. Correlations Between SMBS and other measures of social connectedness (n=355); zero-order correlations in the lower triangle and correlations with age partialled out in upper triangle.

Note: * $p < .05$; ** $p < .01$

In order to establish convergent validity, a correlational analysis was conducted on the full sample, comparing the mean and subscales of the Social Media Behavior Scale (SMBS) with the scores from the Social Connectedness Scale-Revised, the General Belongingness Scale, and the Social Networking Adoption Scale (Community measures). Zero-order correlations are displayed in the lower triangle in Table 3. The intercorrelations between the SMBS subscales were significant,

suggesting good internal validity of the measures (r s ranged from .32 to .58). As none of the zero-order correlations were higher than .80, multicollinearity was not a problem in this dataset (Kline, 1998). It is, however, worth noting that these coefficients may have been inflated by the large age variation in this group. In order to adjust for this, a partial correlation analysis with age group partialled out was calculated. These are shown in the upper triangle in Table 3. The intercorrelations between SMBS subscales remained moderate to high even after age is partialled out

(r s ranging from .35 to .55). The within-construct coefficients were higher than between-construct coefficients suggesting good internal validity of the measures purportedly tapping four subcomponents of the SMBS. Looking next at convergent validity, the Social Connectedness Scale-Revised was significantly correlated with the *Antagonism* subscale of SMBS ($r = .13$), but this was not significant once age was partialled out. The General Belongingness Scale was significantly correlated with the *Prosocial* subscale of SMBS ($r = .11$), and remained even when age was partialled out. Finally, the Social Networking Adoption Scale was

significantly correlated with all five subscales of the SMBS, even when age taken into account (r s ranging from .34 to .49). These patterns suggest that a sense of belongingness is related to prosocial behaviors online; and that a greater sense of online community online is related to more connectedness, prosocial, and antibullying behaviors on social media and less participation in confrontational political conversations.

3.3 Criterion validity

	R^2 change	F	β	t
Outcome: Prosocial behaviors				
Non-millennial males: <i>antibully</i>	.177	9.04*	-.421	-3.01*
Non-millennial females: <i>making friends</i>	.084	8.44*	-.290	-2.90*
Outcome: Maladaptive behaviors				
Millennial males				
<i>Antagonism</i>	.658	100.14*	.525	6.87*
<i>Social connectedness</i>	.150	39.81*	-.482	-6.31*
Non-millennial males				
<i>Antagonism</i>	.622	69.20*	.634	6.93*
<i>Social connectedness</i>	.100	14.86*	-.353	-3.85*
Millennial females				
<i>Antagonism</i>	.460	126.21*	.574	10.43*
<i>Social connectedness</i>	.130	46.55*	-.375	-6.82*
Non-millennial females				
<i>Antagonism</i>	.469	85.64*	.536	7.17*
<i>Social connectedness</i>	.096	21.18*	-.344	-4.61*

Table 4. Hierarchical regression analyses predicting prosocial and maladaptive behaviors

In order to investigate the criterion validity of the SMBS in predicting both prosocial and maladaptive behaviors in the present sample, a series of hierarchical regression analyses was performed with sets of predictor variables entered separately for prosocial (altruism) and maladaptive behaviors (see Table 4). The goal of these analyses was to explore which social media behaviors (*social connectedness*, *antibully*, *making friends*, *prosocial*, and *antagonism*) would be predictors, as a function of gender and age. Age was classified as millennials (participants under the age of 30; 59.2% of the present sample) versus non-millennials (40.8% of the present sample). According to Pew Research Center, anyone born within 1981-1996 is considered to be a millennial (Dimock, 2018). At the time the data were collected, this would have included participants younger than 30. It should be noted that this fixed-order hierarchical regression procedure is a highly conservative means of assessing unique relations when different variable sets are themselves highly correlated with one another, as in the present case. However, it does have the advantage of providing stringent tests of specificity of relations that are valuable for interpretation of the data; any residual associations that do meet the criterion for statistical significance are therefore of particular note. For prosocial behaviors, none of the social media behaviors significantly predicted altruism for the millennial males ($n = 55$) or females ($n = 155$). For the non-millennial males ($n = 44$), *antibully* was a significant predictor (18%); and for non-millennial females ($n = 101$), *making friends* was a significant predictor (8%). For maladaptive behaviors, the pattern was the same for millennial and non-millennial males and females. Both *antagonism* and *social connectedness* were significant predictors of behaviors characteristic of a social media disorder.

4. Discussion

Given the role of social media in developing and facilitating social connections, it is important to understand the positive and negative behaviors online. To address this need, we developed the Social Media Behavior Scale and tested the reliability and validity of this scale in three

different populations. First, a 29-item rating scale was developed, targeting social media positive behaviors such as connectedness, prosociality, and negative behaviors, like antagonism and bullying. On the basis of the factor loading patterns from the principal components analyses for each of the three groups, seven items were eliminated. The final Social Media Behavior Scale consisted of 21 items with the highest factor loadings for five subscales: *social connectedness*, *making friends*, *prosocial*, *antibully*, and *antagonism*. This five-factor scale showed good internal reliability as measured by Cronbach's alpha and significant within-construct correlations. Convergent validity was determined by the relationship between the Social Media Behavior Scale and similar constructs of social connectedness. The *Prosocial* subscale was significantly related to the General Belongingness Scale, and was significant even when age was partialled out. This correlation indicates that social media behaviors that show concern for others' self-esteem, such as liking their posts to improve their day, are correlated with a greater sense of belongingness, regardless of age. One explanation for this finding can be derived from Tomasello et al.'s theory of human cooperation (2012). They suggest that modern humans developed a group-mindedness to protect from competition from other groups. As a result, we are more altruistic towards those with whom we have formed an interdependence. In the context of social media, we develop a group-mindedness with our online peer network and demonstrate prosocial behaviors. Convergent validity was also established using the Social Networking Adoption Scale: all five subscales of Social Media Behavior Scale were significantly related to the sense of online community. Factors related to *social connectedness*, *making friends*, *prosocial*, and *antibully*, were positively related; and *antagonism* was negatively correlated. The findings suggest that those who engage in more prosocial behaviors have a greater sense of community, while those who manifest more antagonistic behaviors have less sense of community. These results are also consistent with previous research done on bridging and bonding with developing social capital through social media, in that, young adults

attending university for the first time tend to use social media to develop a sense of community by making social connections online (Mazzoni & Iannone, 2014).

Criterion validity was determined in a set of regression analyses, as a function of age and gender. Looking first at prosocial behaviors, such as altruism, it was surprising that none of the social media behaviors predicted altruism the millennials. One explanation may be that social media creates a sense of narcissism that is incompatible with developing a prosocial outlook (Buffardi & Campbell, 2008). Given that millennials are reported to be the largest user groups of social media platforms (Pew, 2018a), the lack of a relationship between social media behaviors and altruism may be expected. However, recent research suggests that social media platforms such as Facebook, can actually facilitate empathy in millennials (Alloway, Runac, Qureshi, & Kemp, 2014). Findings from a study of over 400 millennials indicated that Facebook was linked with higher levels of empathy and perspective taking, possibly because increased social media usage provided opportunities to connect and practice prosocial skills. Another possibility for why social media behaviors were not predictive of altruism in millennials could be because they lack empathy compared to previous generations (Konrath, O'Brien, & Hsing, 2010). However, others argue that millennials are in fact a very empathic generation who desire to "make the world a better place" (Silverman, 2017). But they express this need differently from different generations. Paulin, Ferguson, Schattke, and Jost (2014) found that they prefer to be autonomous in their motivation, which may not be captured by traditional measures of altruism. With non-millennials, the empathy-altruism hypothesis may explain the predictive power of social media behaviors, where an empathetic identification is more likely to be related to prosocial behaviors (Persson & Kajonius, 2016). However, differences exist between males and females. For females, a sense of belonging, represented by a desire to make friends, was predictive of altruistic attitudes. For males, empathetic identification was expressed as an obligation to defend those who victims of cyberbullying. This finding fits with the idea that emotional congruence, which is conceptually similar to emotional empathy, might diminish cyberbullying behavior (Pfetsch, 2017). Looking next at maladaptive behaviors, the pattern was the same across age groups and gender: higher levels antagonism and lower levels of social connectedness predicted addictive tendencies.

4.1 Limitations and Future Research

This research is the first to develop a psychometrically sound and theoretically driven scale to assess social media behaviors across different age groups and how it affects prosocial and addictive tendencies. However, some limitations could be addressed. The participants in the present study were self-selecting, which may have affected the results. Future research could target populations that are demographically reflective of the user groups of social media platforms. Further research is needed to determine if a 5-factor solution replicates across these populations as well. While the decision was made to focus this scale development on Facebook users due to its popularity, similar behavior patterns could be explored in other social media platforms.

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