Article

Associations Between Social Support and Social Media Use Among Young Adult Cisgender MSM and Transgender Women Living With HIV

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Social media platforms offer the opportunity to develop online social networks. Use of these platforms has been particularly attractive to younger sexual and gender minority individuals as well as those living with HIV. This cross-sectional study examined the perceived level of social support and associations with social media use among youth and young adult cisgender men who have sex with men (MSM) and transgender (trans) women living with HIV and examined these associations by gender identity. The study drew from baseline data collected from 612 cisgender MSM and 162 trans women enrolling in one of 10 demonstration sites that were part of a Health Resources and Services Administration Special Projects of National Significance initiative. The individual projects were designed to evaluate the potential for social media/mobile technology–based interventions to improve retention in care and HIV health outcomes. The data used in this study came from baseline surveys completed when participants enrolled in a site between October 2016 and May 2018. Results demonstrated that a significantly greater proportion of MSM than trans women participants reported the use of social media platforms (e.g., Facebook: MSM = 86%, trans women = 62%; Instagram: MSM = 65%, trans women = 35%). Furthermore, increased social media use improved perceptions of social support only among MSM participants (direct adjusted OR = 1.49) and not trans women participants (gender identity interaction term adjusted OR = 0.64). These results revealed that MSM participants perceived greater social benefit from the use of social media platforms than trans women, which could be a result of generalized online transphobia experienced by trans women. More nuanced data on various social media platforms, that is, anonymous versus profile-based, and group differences, are needed to better understand how social media platforms can be best utilized to optimize health care outcomes among sexual and gender minority youth and young adults living with HIV.

Keywords: *social media; technology use; social support; MSM; transgender*

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BACKGROUND

Young adult cisgender men who have sex with men (MSM) and transgender (trans) women experience significant HIV disparities and associated outcomes (Zanoni & Mayer, 2014). This is evidenced primarily in leading rates of HIV incidence and new infections (Centers for Disease Control and Prevention, 2019). Trans women in particular live the effects of intersectional stigma, in the forms of significant psychological distress (Puckett et al., 2019), substance use (Newcomb et al., 2020), and nonsuicidal self-injury (Claes et al., 2015). Another significant disparity faced by MSM and trans women living with HIV is temporary or unstable housing, and frequent relocation (Keuroghlian et al., 2014). Consequently, the development of social relationships and associated support may be challenged by frequently interrupted physical proximity, a strong predictor of relationship development (Finkel et al., 2017).

Social networking technologies (e.g., text messaging, mobile apps) and platforms (e.g., Facebook, Snapchat) offer quick and constant access to social ties and other affordances, (e.g., anonymity; Fox & McEwan, 2017; Kitzie, 2019). This type of technology use creates potential for large and diverse social networks regardless of physical location, and in spite of potentially discriminating social factors such as gender identity or race/ethnicity (Lu & Hampton, 2016; Southerton & Taylor, 2020). There is some evidence that internet and social media use is frequent among LGBTQ (lesbian, gay, bisexual, transgender, queer, and questioning) people, possibly moreso than the cisgender heterosexual population (Emory et al., 2019; McInroy et al., 2019). Social networking platforms offer an important informal learning environment for LGBTQ people in the formative stages of their identity (Fox & Ralston, 2016), and, given greater security controls, provide a key tool for managing an "out" identity (Cannon et al., 2017; McConnell et al., 2017).

One aspect of LGBTQ identity formation is management of perceived and enacted stigma (Ayres et al., 2006; Kitzie, 2019). It follows that intersectional stigmatizing conditions, such as identifying as a sexual minority and living with HIV, will motivate social media use and prompt potentially beneficial online support seeking (Denq et al., 2018; Han et al., 2019). Online support seeking has been shown to be associated with greater use of coping strategies (e.g., active coping, reframing) among persons living with HIV (Mo & Coulson, 2010). Use of technology and social networking modalities by persons living with HIV to access social support has been shown to be particularly useful to younger individuals reporting weaker in-person support (Cole et al., 2017). Consequently, young LGBTQ people experiencing stigma may find virtual spaces to be effective solutions for reducing stigma and building identity.

Social Support and HIV

Serious or chronic illness can create significant stress in a person's life; however, psychological resilience functions to enable a person to adapt well in the face of adversity. Social relationships can bolster resilience and

mitigate illness-related stressors through the provision of social support (Ozbay et al., 2008). Social support reflects the provision of emotional (e.g., encouragement, empathy), and/or instrumental (e.g., giving advice, providing resources) support via communication networks, either face to face, or as mediated by technology (Burleson & MacGeorge, 2002). Among MSM and trans women, frequent contact with gay/bisexual/MSM and trans peers contributes to resilience (Bariola et al., 2015; Hussen, Jones, et al., 2018), a known protective factor for high HIV risk behavior (McNair et al., 2018).

Among people living with HIV, social support has been associated with safer sex (Arnold et al., 2018), better medication adherence (Wood et al., 2019), fewer disclosure-related concerns (Laschober et al., 2019), lower depression (Leserman, 2008; Mo & Coulson, 2010), and better quality of life overall (Bekele et al., 2013). In fact, young, Black, gay, or bisexual MSM who reported fewer sources of social support were also at higher risk for depression and lower viral suppression, whereas those reporting more social relationships defined as "reciprocal and trustworthy" (Hussen, Easley, et al., 2018) showed no such outcomes. Not surprisingly, young adults, and those recently diagnosed with HIV, are more likely to use online, rather than face to face support, a trend that reverses as they gain experience and trust (Mo & Coulson, 2010).

Online Social Support

Though social support was originally conceptualized as an interpersonal process (Burleson & MacGeorge, 2002), health-related research has produced ample evidence of the efficacy and benefits of online social support activity, including lessened depression and mitigation of stigma (Cole et al., 2017). Social support, as provided by others through information provision and affect regulation, is theorized to protect people from the effects of stressful events through the mechanism of coping (Cohen & Wills, 1985). Coping is a cognitive appraisal process that allows perceivers to manage and transition negative thoughts about an event (i.e., appraisal) through conscious actions such as problem solving or relaxation (Folkman & Lazarus, 1984). Social support derived from diverse online networks, as often found in social media platforms, produces a richer source of social support known as social capital. Social capital reflects the efficacy, mutual trust, and shared identity that results from supportive communication that occurs within social networks (Haslam et al., 2018; Hawe & Shiell, 2000). In this way, social media, and the social capital it affords, may be particularly useful for providing online social support (Lu & Hampton, 2016), specifically among MSM and trans women youth and young adults living with HIV (YLH) who may experience alienation from others. Online support activity offers the presence of similar others while also lessening the risk of more immediate face to face encounters.

THE HRSA/SPECIAL PROJECTS OF NATIONAL SIGNIFICANCE (SPNS) SOCIAL MEDIA INITIATIVE

Given the often-limited amount of face to face social support offered to cisgender MSM and trans women YLH, many rely on social media as a mechanism for fostering social support. In response to the widespread and pervasive use of social media among YLH, the U.S. Health Resources and Service Administration (HRSA) funded a national multisite initiative to evaluate social media tools to improve HIV health outcomes among YLH. Specifically, social media/mobile technology–based interventions were designed to engage and retain YLH in HIV medical care and help them to achieve viral suppression.

Participants were recruited at demonstration project sites in the following cities: Los Angeles, California; San Francisco, California; Chicago, Illinois; St. Louis, Missouri; Winston-Salem, North Carolina; New York, New York; Cleveland, Ohio; Hershey, Pennsylvania; Philadelphia, Pennsylvania, and Corpus Christi, Texas. Eligible participants include YLH aged 13 to 34 years who were newly diagnosed (received their HIV diagnosis within the past 12 months) or were not engaged in HIV care (had a gap in care of greater than 6 months in the previous 12 months). Inclusion criteria were based on the U.S. Department of Health and Human Services (HHS) common core indicators for monitoring HHS-funded HIV care services (i.e., linkage to care, receiving antiretroviral treatment, retention in HIV medical care, HIV viral suppression; HHS, 2012). Protocol details of the initiative and the multisite evaluation across the ten demonstration sites are provided in Medich et al. (2019).

YLH, aged 13 to 34 years, were recruited to participate in the multisite intervention study between October 2016 and May 2018. Demonstration project sites used a variety of methods for recruiting participants. The most common strategy involved using electronic health records to identify patients who were potentially eligible (e.g., had missed appointments, high viral load test) and contacting them through a patient portal, email, or in person during next scheduled appointment visit. In person recruitment was done by clinic staff (e.g., medical staff, case managers, linkage coordinators) and intervention staff knowledgeable about the project. Other recruitment methods included developing project-specific recruitment materials (i.e.,

study flyers, study cards) that were distributed at demonstration sites (e.g., clinic waiting rooms, exam rooms) as well as through street- and venue-based outreach and at community venues/events frequented by the site's priority population, and displayed on social media. Demonstration sites also engaged their youth or community advisory board and community partners to assist with recruitment efforts through referrals.

The respective institutional review boards at each of the 10 demonstration sites approved all study procedures. A separate evaluation and technical assistance center collected evaluation data across the ten sites. At enrollment, YLH were screened, consented, and administered a baseline audio computer-assisted self-interview survey. The automated survey was available in either English or Spanish. Study participants were evaluated every 6 months over an 18-month follow-up period.

AIMS OF THIS STUDY

Using data from the multisite evaluation, this study examined social media use among cisgender MSM and trans women YLH. The study also examined how perceived levels of social support are associated with social media use both among and across these two groups. This study presents a cross-sectional analysis of baseline data and does not include any data collected during the subsequent interventions.

Measures

Age. Age was calculated from the self-reported month and year of birth.

Race/Ethnicity. Participants were asked to specify the race and/or ethnicity they identify with. A single race/ethnicity variable was created with categories for "Hispanic," "non-Hispanic Black or African American," "non-Hispanic White," and "other" ethnic/racial categories.

Current Gender Identity. Participants reported their current gender identity with categories for male, female, transgender man, transgender woman, genderqueer or nonconforming, and other gender identity.

Education. Participants indicated whether or not they were currently in school and how much school they completed. Categories for highest level of education included "eighth grade (junior high) or less"; "some high school"; "completed high school (Grade 12)"; "high school diploma or received GED"; "some college, professional, vocational, or trade school"; "associates degree or trade certificate"; "bachelor's degree"; and "higher than bachelor's degree (e.g., master's, PhD, professional)."

Income. Participants reported monthly income "from all sources combined" that included formal and informal income.

Housing Stability. Participants were asked to indicate all the types of places they lived in the past 6 months, including places such as a house, family member or friend's house, boarding house, halfway house, homeless shelter, on the street, in a hospital, or jail. Participants were then asked to indicate which type of place they stayed the most in the past 7 days.

Social Support. Social support was assessed using the three item social support scale ($\alpha = .80$) drawn from the coping self-efficacy scale (Chesney et al., 2006). Participants were asked about confidence in receiving support from friends and family on a scale of 0 = *not confident at all* to 10 = *very confident*.

Social Media Use. Participants were asked what type of devices they used (e.g., a cell phone or tablet) and where they used these devices (e.g., at home or where they are staying). Participants were then asked about their usage of each of the following types of digital communication tools: texting, email, general social media platforms such as Facebook and Twitter, private messaging on general social networking applications, dating websites and apps such as Tinder and Grindr, and the internet. Participants were asked about the frequency of usage for each technology medium, who they communicated with, the type of activities performed, and the type of information sought. The current analyses focus on frequency of social media platform (e.g., Facebook, Twitter) use, which was a 10-point ordinal scale (0 = *never*, 1 = *once a month*, 2 = *several times a month*, 3 = *once a week*, 4 = *several times a week*, 5 = *once a day*, 6 = *several times a day*, 7 = *once an hour*, 8 = *several times an hour*, 9 = *all the time*).

Statistical Analyses

Social support scale values were calculated as the mean of the three social support items (3 items, $\alpha = .68$). Given the highly nonparametric (i.e., nonnormal) distribution of values, scale values were tetrachotomized (low, medium, high, very high) using quartiles as cut points. Frequency of social media use was calculated as the mean of the frequency-of-use items related to each social media site (full list is given in a table later in text).

Again due to the highly nonparametric distribution, categorical measure was obtained by trichotomizing mean frequency values (low: <2.5, medium: ≥2.5 and <7.5, high: ≥7.5; 9 items, $\alpha = .91$). Housing instability was coded as "1" if a participant reported that they lived in one of the following places in the past 6 months: hotel, motel, boarding house, halfway house, drug treatment center, independent living unit, shelter, on the streets, in a parked car, in an abandoned building; otherwise the variable was coded "0."

Independent-samples *t* tests were used to compare differences between group means, chi-square tests were employed to evaluate associations between categorical variables, and the Kruskal–Wallis test was used to assess median differences across groups. A generalized structural equation model (GSEM; identical in practice to a structural equation model, but with the added ability to include noncontinuous outcomes) employing the ordinal family and logistic link function (to account for social support and social media use outcomes, which were measured at the ordinal level) was used to simultaneously estimate associations between frequency of social media use and perceived social support on participants' sociodemographic characteristics. Additionally, a product term (i.e., a term in which two of the main effects in the model are multiplied together) representing the effect of social media use frequency exclusively among transgender participants (i.e., $X_{social\_media\_use\_frequency} \times X_{gender\_identity}$; where $X_{gender\_identity} = 1$ when the participant self-reported a transgender identity) was included as a covariate in the GSEM models estimating perceived social support to test the moderating effects of gender identity on the relationship between social media use and perceptions of social support.

RESULTS

Sociodemographic Characteristics and Social Support

Table 1 compares MSM ($n = 612$) and trans women ($n = 162$) participants on sociodemographic variables and perceived social support. MSM participants were on average 2 years younger than trans women participants. The distribution of race/ethnicity identities differed significantly between the MSM and trans women subgroups such that a larger proportion of MSM than trans women participants identified as White (20.3% vs. 8.0%), and fewer MSM identified as Hispanic/Latinx (27.6% vs. 38.3%). MSM also evidenced significantly higher educational attainment, higher income in the past month, less housing instability, and incarceration in the past 6 months. MSM reported significantly higher levels of social support than trans women participants.

Social Media Use

As evidenced in Table 2, a significantly greater proportion of MSM than trans women participants reported the use of social media platforms such as Facebook (86.4% vs. 62.4%), Instagram (64.7% vs. 35.2%), and Snapchat (53.4% vs. 30.3%). Accordingly, significantly fewer MSM than trans women participants reported that they did not use any social media (4.4% vs. 24.7%). However, the median frequency of social media use was 5.8 for MSM and 5.0 for trans women participants, with scale values of 5.0 and 6.0 indicating "once a day" and "several times a day," respectively.

Associations Between Social Media Use, Social Support, and Sociodemographic Characteristics

Table 3 includes the results of the GSEM analysis presented as adjusted odds ratios (aOR) for intuitive interpretation, alongside their corresponding 95% confidence intervals; to interpret the interaction effect implied by the model, logit coefficients will be compared directly.

Multivariable results indicate that older participants (aOR = 0.93; coefficient = −0.071) and participants experiencing recent housing instability (aOR = 0.55; coefficient = −0.59) engaged in significantly less frequent social media use than younger and/or stably housed participants. Additionally, participants with lower incomes (aOR = 0.66; coefficient = −0.41) and those experiencing recent housing instability (aOR = 0.47; coefficient = −0.75) reported lower levels of social support than their stably housed and more financially secure counterparts. Interpretation of the hypothesized moderation effect is achievable by comparing the significant main effect of social media use frequency on perceived social support (coefficient = 0.40; aOR = 1.49) with the significant product term (coefficient = −0.44; aOR = 0.64); simple arithmetic (i.e., 0.40 + (−0.44) = −0.04) indicates the product term (i.e., a term that is only active when the participant identified as transgender) fully suppresses the main effect of social media use on perceptions of social support. Effects were maintained in unadjusted models (i.e., identical models but without the inclusion of age, race, educational attainment, income, recent incarceration, or unstable housing as covariates), such that, once again, the main effect of social media use frequency on perceived social support was significant and positive (coefficient = 0.46; aOR = 1.58; 95% aOR CI [1.25, 1.99]), but the product term also demonstrated a negative effect that once again displayed a magnitude equal to that of the main effect (coefficient = −0.45; aOR = 0.64; 95% aOR CI [0.42, 0.96]). Interpretation of the unadjusted models thus mirrors the

TABLE 1
Sociodemographic Characteristics and Social Support by Gender Identity

Characteristic	*Cisgender MSM* (n = *612*)	*Trans women* (n = *162*)	*All* (N = *774*)	*Statistic*	p
Age, years					
M (*SD*)	26.9 (4.1)[a]	29.1 (4.0)	27.3 (4.2)[b]	$t_{(770)} = -6.1$	<.001
Range (IQR)	16–34 (24–30)	18–35 (26–32)	16–34 (24–31)		
Race/ethnic identity, *n* (%)				$\chi^2_{(3)} = 16.0$	.001
African American/Black	260 (42.5)	69 (42.6)	329 (42.5)		
White	124 (20.3)	13 (8.0)	137 (17.7)		
Hispanic/Latinx	169 (27.6)	62 (38.3)	231 (29.8)		
Multiracial/other	59 (9.6)	18 (11.1)	77 (9.9)		
Educational attainment, *n* (%)				$\chi^2_{(3)} = 77.4$	<.001
<high school diploma	75 (12.3)	64 (39.5)	139 (18.0)		
High school diploma/GED	182 (29.7)	54 (33.3)	236 (30.5)		
Some college/associate degree	268 (43.8)	35 (21.6)	303 (39.1)		
Bachelor's degree and higher	87 (14.2)	9 (5.6)	96 (12.4)		
Income (past month), *n* (%)				$\chi^2_{(4)} = 28.5$	<.001
<$195	139 (22.7)	41 (25.3)	180 (23.3)		
$195-$800	130 (21.2)	56 (34.6)	186 (24.0)		
$801–1,500	136 (22.2)	38 (23.5)	174 (22.5)		
$1,501–$65,000	164 (26.8)	14 (8.6)	178 (23.0)		
Don't know/not sure	43 (7.0)	13 (8.0)	56 (7.2)		
Housing instability (past 6 months), *n* (%)	110 (18.0)	69 (42.6)	179 (23.1)	$\chi^2_{(1)} = 42.3$	<.001
Incarceration (past 6 months), *n* (%)	68 (11.1)	29 (17.9)	97 (12.5)	$\chi^2_{(1)} = 5.4$	.020
Social support, *Mdn* (IQR) or *n* (%)					
Item 1: Help from friends	8 (5–10)	7 (4–9)	7 (5–10)	KW $\chi^2_{(1)} = 7.3$	.007
Item 2: Emotional support	8 (5–10)	7 (5–9)	8 (5–10)	KW $\chi^2_{(1)} = 13.0$	<.001
Item 3: Making new friends	8 (6–10)	8 (5–10)	8 (5–10)	KW $\chi^2_{(1)} = 4.7$	.030
Scale	7.7 (5.3–9.3)	7.0 (5.0–8.6)	7.7 (5.3–9.3)	KW $\chi^2_{(1)} = 10.0$	.002
Scale				$\chi^2_{(3)} = 7.1$	.069
Low	160 (26.1)	55 (34.0)	215 (27.8)		
Medium	152 (24.8)	42 (25.9)	194 (25.1)		
High	158 (25.8)	41 (25.3)	199 (25.7)		
Very high	142 (23.2)	24 (14.8)	166 (21.4)		

Note. MSM = men who have sex with men; IQR = interquartile range; KW = Kruskal–Wallis.
[a]*n* = 611. [b]*n* = 773.

adjusted models completely: Direct effects of social media use on social support were fully suppressed among trans women participants (i.e., 0.46 + (–0.45) = 0.01).

DISCUSSION

In this study of MSM and trans women YLH, results indicated that gender identity moderated associations between social media use and perceptions of social support, such that increased social media use only improved perceived levels of social support among MSM but not trans women participants. Thus, not only do MSM use social media platforms more frequently on average than trans women, they receive a social benefit from these interactions that trans women do not. These findings were in contrast with a previous study that found no association between Facebook use and perceived social support among a sample of LGBTQ youth (McConnell et al., 2017). The contrast between

TABLE 2
Social Media Use by Gender Identity

Social media use	*Cisgender MSM (*n = *612),* n *(%) or* Mdn *(IQR)*	*Trans women (*n = *162),* n *(%) or* Mdn *(IQR)*	*All (*N = *774),* n *(%) or* Mdn *(IQR)*	*Statistic*	p
Social media platforms					
Facebook	529 (86.4)[a]	101 (62.4)[b]	630 (81.4)[c]	$\chi^2_{(1)} = 48.3$	<.001
Instagram	396 (64.7)[a]	57 (35.2)[b]	453 (58.5)[c]	$\chi^2_{(1)} = 45.5$	<.001
Snapchat	327 (53.4)[a]	49 (30.3)[b]	375 (48.6)[c]	$\chi^2_{(1)} = 27.2$	<.001
Twitter	177 (28.9)[a]	14 (8.6)	191 (24.7)[d]	$\chi^2_{(1)} = 28.4$	<.001
Tumblr	220 (36.0)[a]	9 (5.6)	228 (29.6)	$\chi^2_{(1)} = 57.0$	<.001
Grindr	239 (39.1)[a]	22 (13.6)	261 (33.7)[d]	$\chi^2_{(1)} = 37.3$	<.001
Jack'd	173 (28.3)[a]	13 (8.0)	186 (24.0)[d]	$\chi^2_{(1)} = 28.9$	<.001
Adam4Adam	102 (16.7)[a]	11 (6.8)[b]	113 (14.6)[c]	$\chi^2_{(1)} = 9.9$	.002
Scruff	95 (15.5)[a]	5 (3.1)	100 (12.9)[d]	$\chi^2_{(1)} = 17.7$	<.001
Plenty of Fish	24 (3.9)[e]	19 (11.7)[b]	43 (5.6)[f]	$\chi^2_{(1)} = 14.9$	<.001
Badoo	19 (3.1)[a]	21 (13.0)	40 (5.2)[d]	$\chi^2_{(1)} = 25.3$	<.001
Other	24 (3.9)[a]	4 (2.5)[b]	28 (3.6)[c]	$\chi^2_{(1)} = 0.8$	.383
None	27 (4.4)[a]	40 (24.7)	67 (8.7)	$\chi^2_{(1)} = 66.5$	<.001
Frequency of use	5.78 (3.89–7.89)	5.00 (0.42–8.81)	5.61 (3.56–8.00)	KW $\chi^2_{(1)} = 8.9$	.003
Frequency of use				$\chi^2_{(2)} = 53.7$	<.001
Low	77 (12.6)	57 (35.2)	134 (17.3)		
Medium	360 (58.8)	54 (33.3)	414 (53.5)		
High	175 (28.6)	51 (31.5)	226 (29.2)		

Note. MSM = men who have sex with men; IQR = interquartile range; KW = Kruskal–Wallis.
[a]$n = 611$. [b]$n = 161$. [c]$n = 772$. [d]$n = 773$. [e]$n = 609$. [f]$n = 770$.

the previous study findings and the results presented here may be due to the wider swath of social media platforms included here, and/or due to the fact that all sexual and gender minorities in the previous study were collapsed together into a single cohort, despite apparently contrasting effects of social media use across groups.

It would appear that any lack of association between social media use and social support would be perplexing, as social media platforms explicitly and intentionally provide opportunities for frequent communication and interpersonal connection; as such, increased social support would seem to be an element *sine qua non* of the social media experience. However, recent studies have found that social media use, particularly text-based social media use (e.g., Twitter, Facebook; Pittman & Reich, 2016) can actually increase perceptions of isolation and loneliness among young adults (Primack et al., 2017), and that social media use may be associated with increased risk of self-harm (Luxton et al., 2012). Evidence also suggests that actively seeking support from online sources often elicits negative reactions from peers/connections on social media (McConnell et al., 2017). The trans women in this study were more likely to actively use social media platforms to seek validation and support from others, perhaps due to increased isolation from families of origin and/or more traditional face to face social groups relative to MSM. It is thus possible that they may have also found themselves to be the target of more negative attention within such online media. The negative feedback the trans women may have received, either through this known process or via generalized transphobia, may have contributed to lower levels of perceived social support including the lack of social support that increased relative to social media use observed in this study.

To our knowledge, this is the first study to estimate associations between frequency of social media use and perceived level of social support among cisgender MSM and trans women YLH. Given the paucity of available literature to build on, the findings presented here could not be contextualized with a broader array of results

TABLE 3
Generalized Structural Equation Model (Ordinal Logistic Link Function) of Social Media Use (Low/Medium/High) and Social Support (Low/Medium/High/Very High) Among MSM and Trans Women (Coefficients and Confidence Intervals Presented as Adjusted Odds Ratios; *n* = 717)

	Social media use frequency		*Perceived social support*	
Variable	*aOR*	*95% CI*	*aOR*	*95% CI*
Transgender identity	1.35	[0.90, 2.02]	0.78	[0.44, 1.38]
Social media use frequency	—	—	1.49***	[1.17, 1.91]
Transgender identity × social media use frequency	—	—	0.64*	[0.42, 1.00]
Age (years)	0.93***	[0.90, 0.97]	0.99	[0.96, 1.02]
White racial identity	0.73	[0.50, 1.05]	1.18	[0.83, 1.68]
<High school diploma	0.92	[0.62, 1.36]	1.13	[0.79, 1.62]
Income less than $195/month	0.95	[0.68, 1.32]	0.66**	[0.48, 0.91]
Incarceration (past 6 months)	1.46	[0.93, 2.32]	1.27	[0.84, 1.92]
Housing instability (past 6 months)	0.55***	[0.38, 0.79]	0.47***	[0.34, 0.66]

Note. MSM = men who have sex with men; aOR = adjusted odds ratio.
*$p < .05$. **$p < .01$. ***$p < .001$.

from other studies. As such, the following comparisons were made between this sample and LGBTQ youth from previous technology use studies. McConnell et al. (2017) reported that LGBTQ youth often employ a variety of identity-management strategies when using social media to ensure their sexual identity and/or gender identity remains hidden from those whom they perceive will not be supportive. It is possible that trans women participants were more prone to censor personal information when using social media than MSM and/or presented information that was less well-practiced than MSM participants, such that it was harder to form supportive social relationships with persons met via social media. This may be particularly likely given the current level of transphobic attitudes, media, legislation, and violence against transgender individuals in the United States. Furthermore, the difficulty and stress that can be involved with this form of identity management (e.g., navigation and management of complex information, privacy settings, and the use of multiple profiles) may have further hindered trans women participants' ability or availability to perceive social support through these social media platforms.

Prior studies have also found that passive users of social media platforms—those who primarily look at pictures and posts without creating their own content—report lower levels of well-being than more active users (Ceglarek & Ward, 2016). Users who have experienced victimization while using social media, as well as those involved in some or all of the identity management tasks described above, may be more likely to be passive users leading to lower levels of associated social support, regardless of the frequency of their use. It may be likely that trans women on social media platforms, much like trans women offline, experience more frequent and more severe victimization than their MSM counterparts (Holloway et al., 2020). Future research on this topic may wish to collect data regarding online victimization and sexual and gender identity disclosure to help explain this process.

Differing types of social support sought by MSM and trans women via social media platforms may also help explain the pattern of findings revealed in this study. The literature on social support describes three main types of social support: emotional (e.g., providing comfort, belonging), informational (e.g., providing information, advice), and instrumental (e.g., providing tangible goods or services; Turner & Turner, 1999). Prior research has demonstrated that trans women use social media platforms largely to develop social support networks (emotional support) and to find gender-confirming facts and resources (informational support; Reback et al., 2019). It may be that the trans women participants were seeking a type of social support that was not well-measured by the social support index used in this study, which focused on emotional support and friendships. If social support had been operationalized to include informational as well as emotional or instrumental support, the results reported here may have differed.

Limitations

While the cross-sectional study allows for analysis of temporally naïve associations, directional causality between the perceived level of social support and frequency of social media use cannot be concretely established. Although social media use could increase social support, it could also be that those with an existing effective social support network use social media more frequently. Operationalizations used in this study also did not differentiate between active and passive use of social media platforms, which has been shown in previous studies to be a significant covariate when assessing the well-being of individuals (Ceglarek & Ward, 2016). Additionally, only social media platforms that require identifiable information were considered, which may bias use statistics against trans women who may prefer social media platforms where less structured identities can be created. Finally, given that demonstration sites used convenience sampling, the results of this study may not be generalizable to the broader population of young men cisgender MSM and transgender women living with HIV.

Implications for Research and Practice

These findings are compelling as they highlight the associations between and differences in social media use and perceived social support among cisgender MSM and trans women YLH. As technology-based interventions are becoming more common and prevalent in health care settings, it is critical to understand for whom these interventions are best suited to optimize health outcomes. These findings suggest that future studies include an examination of anonymous platforms in addition to platforms that use identifiable profiles, which may be perceived as less supportive among certain groups such as gender minority individuals. More nuanced data could help identify possible group differences between individuals who seek out anonymous online social support and those who use identity connection platforms, which, in turn can be utilized to determine optimal intervention modalities.

Regarding practice, social media interventions may help to increase community resilience among sexual and gender minority individuals who experience minority stress, including cisgender MSM and trans women LWH. According to Meyer (2015), community resilience is a product of the supports that community members provide to one another to increase their ability to cope with stress. When community members have access to resources such as culturally relevant information, support groups, and community gathering spaces, those members are better able to cope with minority stress. As previously discussed, these resources are also considered types of social support. Service providers tasked with developing and implementing social media interventions can consider ways to foster community resilience by providing similar resources in a virtual space.

The results of this study also suggest that service providers who wish to implement social media interventions must be aware of the types of support their participants would like to access when using the social media platforms. This approach necessitates collaboration with members of the participant communities to design these platforms as a way to increase cultural responsiveness and avoid unintended consequences such as increased feelings of isolation. Moreover, these findings indicate that transgender women and cisgender MSM experience differential outcomes as a result of interacting on existing social medial platforms, which suggests a need for the development of separate platforms to respond to individual community needs. In addition, social media platforms may need to be monitored by service providers to ensure the safety of their users, especially those platforms designed for populations who experience frequent and severe victimization.

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