Twitter, Social Support Messages and the #MeToo Movement

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Since 2006, the phrase "Me Too" has been used to empower survivors of sexual abuse and assault. In October 15, 2017 the phrase emerged on Twitter as a hashtag in a tweet sent by actor Alyssa Milano. In this content analysis of that #MeToo hashtag, social support theory was applied to categorize the types of tweets communicated. The results indicated informational support messages was the most popular type of content tweeted by both individuals and organizations. The research argues for a new type of social support categorization, named directive support, to catalogue messages that communicate a call for collective action and to address larger issues that contribute to sexual violence and harassment. Implications for related weak-tie relationships for both victims and those who respond to them are discussed.

Keywords: social support theory, Twitter, #MeToo, content analysis, sexual assault, sexual violence, weak-tie relationships

In 2006, civil rights activist Tarana Burke used the phrase "Me Too" to empower survivors of sexual abuse and assault, specifically women of color, and help them realize they were not alone (Johnson & Hawbaker, 2018). It wasn't until October 15, 2017 that the phrase increased in notoriety when actor Alyssa Milano tweeted a request to her followers in response to the sexual assault allegations against movie producer Harvey Weinstein: "If you've been sexually harassed or assaulted write 'me too' as a reply to this tweet." The next morning she had 55,000 replies, and it was a trending topic on Twitter (Sayej, 2017). Within 24 hours, Facebook recorded 12 million posts from 45 million users in the United States using the hashtag (CBS, 2017). By January of 2018, there were 6.5 million tweets using the hashtag (Chou, 2018).

It is common for people to offer support for victims of sexual violence and harassment in both face-to-face and computer-mediated contexts (e.g., telephone, email). Given the rise of social media over the past decade, victims and supporters also have moved their support and conversations about sexual assault and violence to social networking platforms like Twitter in hopes of affecting large audiences. Most recently, posters used the #MeToo hashtag to sympathize and empathize, to offer support and resources for healing, to express regret and outrage, or to tell their own stories. When evaluated collectively, these posts are part of a much larger, ongoing narrative in the social milieu of sexual violence and harassment. To better understand how the #MeToo hashtag is used in Twitter narratives, we conducted a content analysis using social support theory of #MeToo tweets posted between October 15, 2017 and March 15, 2018.

Social Support Theory and Twitter

Much research has been conducted related to others' responses and effects of these responses on victims of sexual violence who reveal details about it in person or online (e.g, Moors & Webber, 2012; Ullman & Peter-Hagene, 2014). However, there has been scant research about social support as communicated after online disclosures of sexual violence or harassment.

Scholars began focusing on social support as an important form of communication that affects physical and mental health by helping recipients better cope with stressful situations (House, Landis, & Umberson, 1988). Social support research began in the mental health field (House, Landis, & Umberson, 1988), but the model has since been utilized in a variety of social science, public health, and medical fields (Wright, 2016).

House (1981) developed four categories of social support that continue to serve as the foundation for ongoing research: emotional, informational, appraisal, and instrumental. Emotional support messages include verbal or nonverbal shows of understanding, caring, kindness, trust or love to a person in distress. Informational support messages provide relevant advice or helpful knowledge to aid in coping with significant challenges faced within a particular context. Although it also provides information, appraisal support messages are distinct from informational support because the knowledge conveyed also helps recipients better evaluate themselves or their

situations through social comparison. Finally, instrumental support messages include direct, tangible help, such as assisting with a task or providing financial assistance.

Regarding Twitter, the #MeToo movement offers a platform for offering support through social media to victims of sexual violence and harassment all over the world and on an unprecedented scale. Therefore, we offer four reasons for strategically focusing on Twitter rather than other digital platforms. First, Milano's use of the #MeToo hashtag in the October 15th tweet exploded in popularity with re-tweets (RTs), therefore providing us with a substantial data set with which to work. Second, since many of the #MeToo tweets were publicly available without privacy restrictions, they were easily accessible to those seeking support. Third, the 140-character limitation (now 280) enabled users to distill the message to the most relevant and key elements of support messages, rather than engaging in a longer, more in-depth narrative like those that could appear on Facebook or Instagram. Finally, Twitter offered the opportunity to examine social support communicated between those with weak-tie relationships.

LITERATURE REVIEW

There have been few published studies about computer-mediated social support messages following disclosures of sexual violence or harassment. Therefore, to contextualize our study, research is categorized first relating to face-to-face social support and other types of responses victims of sexual violence receive after disclosure. Next, studies focusing on social support in computer-mediated contexts about significant emotional or physical health issues (not related to sexual violence) are summarized. Finally, research on social support and other types of responses that victims of sexual violence exchange in computer-mediated contexts are described.

Face-to-Face Responses to Victims of Sexual Violence

Researchers have categorized the types of responses victims, who also may refer to themselves as survivors, receive upon disclosing sexual violence in personal conversations. Victims reported a mixture of both positive and negative responses when they told others about sexual violence such as rape, sexual assault, or sexual abuse (Borja, Callahan & Long, 2006; Filipas & Ullman, 2001; Starzynski, Ullman, Filipas, & Townsend, 2005; Ullman & Peter-Hagene, 2014). Emotional and informational support were the most

common types of social support victims received in communication with romantic partners, family, friends, or professionals (e.g., counselors) (Mason, Ullman, Long, Long, & Starzynski, 2009). There are clear implications for recovery if a victim receives social support after disclosing. Victims who received higher levels of emotional and informational support reported fewer incidents of being sexually assaulted again than those who did not (Mason et al, 2009).

Beyond social support, other types of positive or negative reactions after disclosure of sexual violence can have important effects on victims. For example, Ullman and Peter-Hagene (2014) found that victims who receive positive reactions in face-to-face encounters had better methods of coping with the assault and perceived greater control over their recovery, which was associated with fewer PTSD symptoms. Similarly, victims of sexual assault who received helpful, compassionate reactions from close others and professionals reported gains in feelings of being cared about and self-efficacy in their recovery (Borja, Callahan, & Long, 2006).

Conversely, Ullman and Peter-Hagene (2014) found that confidants who react negatively to a victim's disclosure by blaming the victim, trying to control their choices about legal or health issues related to the assault, or treating the victim differently increased the victim's PTSD symptoms, self-blame, and feelings of helplessness. Ahrens (2006) reported that rape victims who received negative reactions from friends, family, or from co-workers tended to stop talking about their experiences. These victims questioned the effectiveness of any future disclosures, blamed themselves for the attack, and doubted whether the attack was truly rape (Ahrens, 2006).

Clearly, emotional and informational social support, along with other types of responses provided to victims during face-to-face encounters, play an important role in recovery. However, not all victims of sexual violence or harassment have the opportunity or the desire to disclose to people within their personal lives. There are many reasons why people facing significant challenges seek out social support online in addition to, or instead of, face-to-face encounters.

Social Support in Computer-Mediated Contexts and Weak Ties

The advent of easily accessible social support through online chat rooms and social media created new ways for people to connect. Drawing from a meta-analysis of 41 studies

of social support exchanged in computer-mediated health support groups, Rains, Peterson, and Wright (2015) found that the most common types of social support messages exchanged were informational and emotional. In focusing on Twitter and social support, Rui, Chen, and Damiano (2013) evaluated how health organizations communicated social support. Organizations were most likely to communicate informational social support messages, such as treatment options or referrals (76% of messages), followed distantly by emotional support (11.5% of messages) and instrumental support (.47% of messages) (Rui, Chen, & Damiano, 2013).

Whether provided by organizations (Rui, Chen, & Damiano, 2013) or individuals (Rains, Peterson, & Wright, 2015; Trepte, Dienlin, & Reinecke, 2015), informational support was more commonly shared through computer-mediated platforms than other types. The features of an online environment made it an effective way to share informational support (Trepte, Dienlin, & Reinecke, 2015). Furthermore, the social support communicated in these environments played an important role for those who received it. A study of social support offered on popular German social networking sites Facebook and studiVZ revealed that users were similarly satisfied with social support received online or in-person, but only the online support was associated with overall life satisfaction (Trepte, Dienlin, & Reinecke, 2015). Facebook use was a stronger predictor of receiving social support than having a large network of strong-tie relationships (emotionally close, ongoing relationships) (Kim, 2014). The ease of connecting online with friends who are rarely or never encountered in person can create virtual weak-tie relationships.

Weak-tie relationships may include frequent communication, but occur between people who do not consider themselves part of a common social circle (Wright & Miller, 2010) and tend to focus on one type of topic (Walther & Boyd, 2002). Numerous researchers have found that computer-mediated contexts provided a beneficial opportunity to exchange social support with weak ties who face similar difficult situations (Tanis, 2008; Waltner & Boyd, 2002; Wright & Miller, 2010; Wright & Rains, 2013). Social support from weak-tie relationships offered a number of benefits including the ability to disclose personal information without risking embarrassment or adverse reactions from close others (Walter & Boyd, 2002; Wright & Miller, 2010); the ability to receive more

objective feedback from others who are less emotionally attached to one another (Wright & Miller, 2010); and the likelihood of communication with people of diverse experiences and knowledge about a particular topic than typically is available with close friends and family members (Walter & Boyd, 2002). In particular, people seeking social support for stigmatized conditions such as being transgender (Walter & Boyd, 2002) or dealing with depression, bulimia, infertility and other types of health conditions associated with negative public attitudes (Wright & Miller, 2010) preferred to receive social support from weak ties. Being a victim of sexual violence is also considered a stigmatized condition (Andalibi, Haimson, Choudhury, & Forte, 2016) and one that can include the benefits of weak-tie relationships.

Online Disclosure of and Responses to Sexual Violence and Harassment

Few research studies have been published that focus specifically on social support in online contexts communicated after disclosures of sexual violence or harassment. To better understand this, the next section describes why and where people discussed experiences of sexual violence and harassment online, who disclosed, post content, and responses to these posts.

Platforms utilized, reasons for posting, and identities of posters.

Researchers have identified a number of online locations where victims of sexual violence and harassment have disclosed incidents and responded to one another. These include blogs (Fawcett & Shrestha, 2016), Reddit community forums (Andalibi, et al., 2016; O'Neill, 2018), Twitter (Bogen, Millman, Huntington, & Orchowski, 2018), sponsored advice forums (Smith, 2010; Webber, 2014; Webber & Wilmot, 2012), YouTube videos, Tumblr, and apps such as Hollaback! (Rentschler, 2014). Victims of sexual violence embrace the capacity to discuss sensitive issues using the anonymity of online forums (Andalibi, et al., 2016; O'Neill, 2018; Smith, 2010). Since sexual assault and rape are considered socially stigmatized, victims may be more likely to seek support online (Andalibi, et al., 2016), particularly those who fear or had received negative responses from others (Andalibi, et al., 2016; Fawcett & Shrestha, 2016; O'Neill, 2018; Smith, 2010; Webber & Wilmot, 2012) or do not have people in their personal lives with whom they can discuss their experiences (O'Neill, 2018).

Sexual assault victims described feelings of vulnerability (O'Neill, 2018; Smith, 2010) or fear of victim-blaming in their preference to disclose online (O'Neill, 2018). Victims have described online forums as "alternative virtual communities" (Sills, et al., 2016, p. 18) regarded as a place to safely disclose viewpoints and experiences (Fawcett & Shrestha, 2016; O'Neill, 2018; Sills, et al, 2016), particularly those within marginalized groups (Bogen, et al., 2018; Sills, et al, 2016) or for those who are in socially isolated settings or abusive relationships (O'Neill, 2018).

In addition, whether from a combination of these factors that lead victims to seek support online, or from a familiarity with the internet as a source of information and connection, young people tended to use online mediums to disclose and discuss sexual violence (Bogen, et al., 2018; Moors & Webber, 2012; Rentschler, 2014; Sills, et al., 2016; Smith, 2010; Webber & Wilmot, 2012). Because of the more anonymous nature of the online environment, less is known about the identities of those discuss sexual violence online. However, two studies found that women were approximately twice as likely to post as men (Andalibi, et al., 2016; Lokot, 2018). Also, 9.6% of the posts for a Facebook campaign related to sexual harassment originated from organizations such as media outlets, non-profit organizations, or activist groups (Lokot, 2018).

Post content.

Only one study of online social support for victims of sexual violence was located. On posts in Reddit communities for those who were sexually abused, 78% of the posts included the victims' detailed descriptions of the abuse they experienced (Andalibi, et al., 2016). Reddit posters most commonly sought out informational support, such as advice or facts to aid in recovery. Although most posts were from those who had experienced sexual abuse and were seeking support, 9% of topics focused on providing support to others (Andalibi, et al., 2016).

Only one study described Twitter posts specifically focusing on sexual violence. Similar to detailed narratives in Reddit posts (Andalibi, et al., 2016), sexual violence victims using the #NotOkay hashtag commonly included explicit descriptions of the violence, the identity of the perpetrator, emotional effects of the attack, and reasoning victims used to understand why the assault occurred (Bogen, et al., 2018). Other researchers have documented posts across a variety of platforms where victims of sexual

violence described their experiences in detail including specific descriptions of the violence and the circumstances surrounding it (Fawcett & Shrestha, 2016; Lokot, 2018; Moors & Webber, 2012; Webber, 2014; Webber & Wilmont, 2012) and the emotional aftermath victims felt following the incident (Fawcett & Shrestha, 2016; Lokot, 2018).

Across a variety of mediums, posts from victims focused on making sense of their experiences. Researchers found posters sought reassurance that a sexual encounter met the definition of assault (Moors & Webber, 2012; O'Neill, 2018; Webber, 2014) or how to evaluate their own and their attackers' behaviors to determine blame (Lokot, 2018; O'Neill, 2018; Webber, 2014; Webber & Wilmont, 2012). Victims sought advice such as legal options or how respond to the perpetrator (Webber, 2014; Webber & Wilmont, 2012). Beyond seeking support, some victims shared advice, inspirational stories, or other encouragement to those facing similar situations (Fawcett & Shrestha, 2016; Moors & Webber, 2012; Rentschler, 2014; Webber, 2014).

Not all of the responses that victims received online were encouraging or helpful. In a study of the Yahoo! Answers forum on sexual assault, Moors and Webber (2012) found that most of the replies were encouraging or recommended action to obtain help, but a little over 14% of the responses to victims included negative feedback such as blaming the victim or trivializing the assault. Similarly, Sills, et al. (2016) described a victim who faced victim-blaming and excuses from friends of the perpetrator for his actions after the assault was described on Facebook.

A final common feature of online posts from victims was that they expressed feeling empowered when the violence was acknowledged by others (Lokot, 2018; O'Neill, 2018). Victims used social media to expose perpetrators (Bogen, et al., 2018; Lokot, 2018; Rentschler, 2014; Sills, et al., 2016) as a form of "vigilante justice" (Sills, et. al., 2016, p. 24) to address crimes outside of a justice system that was perceived as failing to do so. Some online forums focused on creating large-scale social change by demonstrating the pervasiveness of sexual violence and harassment (Bogen, et al., 2018; Lokot, 2018; Rentschler, 2014; Sills, et al., 2016).

This Study's Rationale

With over 6.5 million tweets (Chou, 2018) at the time of this publication, social support communicated via #MeToo has the potential to provide significant effects on

victims' health outcomes. Given the impact of positive and negative responses to victims' disclosures of sexual assault to others on their recoveries (Ahrens, 2006; Borja, Callahan, & Long, 2006; Ullman & Peter-Hagene, 2014), creating a better understanding of the types of responses offered by both individuals and organizations in the #MeToo forum is important. Some is known about online social support sought by and communicated by individuals (Andalibi, et al., 2016), but no published studies focusing on social support types expressed by organizations to victims of sexual violence or harassment were located. Finally, Twitter as a platform on which to describe and respond to others about sexual violence experiences (Bogen et al, 2018) and how the account holder identity may affect social support offered has been under-researched.

Multiple studies of social support communicated online for a variety of issues found that informational support was the most commonly expressed (Andalibi, et al., 2016; Rains, Peterson, & Wright, 2015; Rui, Chen, & Damiano, 2013; Trepte, Dienlin, & Reinecke, 2015). This leads us to posit the following hypothesis to guide our research:

H1: Both individuals and organizations will use informational support messages with significantly greater frequency than other support messages.

Previous researchers have discovered that women are much more likely to post about sexual violence and harassment than men (Andalibi, et al., 2016; Lokot, 2018). However, studies have not yet identified the types or frequencies of messages that women and men communicate. Also, previous studies of social support communicated in health support groups have adjusted the social support typology for different face-to-face and mediated contexts (Rains, Peterson, & Wright, 2015; Rui, Chen, & Damiano, 2013). Therefore, more research is needed to identify whether the same types of social support are communicated on Twitter as opposed to other digital or face-to-face contexts. Given this, we posit the following question to guide our research:

RQ1: What are the most frequent types of social support messages communicated by males and females on Twitter in the #MeToo campaign?

METHODS

A content analysis was conducted of tweets containing the #MeToo hashtag sent between October 18, 2017 (Alyssa Milano's first use of the #metoo hashtag) and March 15,

2018 (six months from Milano's initial tweet). The total number of tweets accrued to that point represented a substantial data set from which to work. We gathered this data using Google Forms and the Twitter Archiver Premium add-on. In order to ensure comprehension as English-speaking researchers and to weed out spam tweets, we used the following parameters with the add-on: tweets had to be in English and the account had to have at least five retweets. In total, we gathered 27,803 publicly accessible tweets.

A codebook was developed and then tested four times in order to achieve intercoder reliability (see below). Initially we used House's (1981) classic typology of social support messages in the codebook: emotional, informational, instrumental, and appraisal. After testing the first 200 messages, and using an open coding philosophy where we were amenable to adjusting the categories, we made two changes. First, from our own observations and drawing from adaptations made by Rui, et al., (2013), we removed the instrumental category since it wasn't manifesting in this context. Second, we found that informational messages also contained missives for actions that should be taken by those who support victims of sexual violence and harassment. For instance, "You have a #voice and you should use it. #metoo." To account for these missives, we added a fourth category that we named directive. Once consensus was achieved, we selected every 10th tweet for coding, resulting in 2,782 tweets analyzed.

The codebook categorized tweets on two levels: the content of the tweets and the sex of the poster. Content was divided into five types: emotional, informational, directive, appraisal, and other. Emotional tweets were operationalized as displaying any messages of understanding, caring, kindness, trust, love to victims of sexual violence or frustration or anger that they had experienced sexual violence or harassment. For example, "So let me just say this: I feel humbled by your everyday bravery. I hear you. I believe you. I support you. #metoo." Informational tweets were operationalized as data that could be helpful for victims of sexual violence to gain assistance from others or to speed their recovery. For example, "For those suffering in the aftermath of #MeToo, here are some (mostly) free resources to help."

Directive tweets were operationalized as suggestions, advice, directives, and behaviors that encouraged readers to take action in ways that would directly help victims or address larger social problems that contribute to sexual violence. For example, "Too

many women have said #metoo & we've seen no action. Retweet this if you demand change at a system level. Let's start asking questions." Appraisal tweets were operationalized as specific stories of others' experiences and reactions to sexual violence, which would allow readers to evaluate their own experiences and responses as a form of social comparison. Some appraisal tweets included naming either the victim or the accuser. For example, "Just had a conversation with my grown daughter about sexual harassment at work and she let me know that she once slapped her bosses glasses of his face at a party because he grabbed her breast. #MeToo #ThisIsWhyWeFight." Finally, any tweet that did not fit into any of the prior categories was categorized as Other.

The second level of coding focused on the person or organization that posted. Tweets were coded as either Female, Male, Unknown Sex, or Organization. To be categorized as such, posters were sorted using at least two of the following identity markers: account holder's published full name, biography, and profile picture. The published full name was operationalized as names typically associated with males (e.g., John), typically associated with females (e.g., Jane). The biography was operationalized as using language typically associated with females (e.g., wife, mother, her, woman, etc.) or males (e.g., husband, father, his, etc.). Finally, posters operationalized as female had profile picture characteristics typically associated with women like cosmetics use, displaying hairstyle and clothing typically associated with women, or clear physical indicators of sex such as breasts. Posters operationalized as male expressed characteristics typically associated with men in their profile pictures such as hairstyle and clothing typically associated with men, or clear physical indicators of sex such as an Adam's Apple and facial hair. If the poster of any tweet could not be identified with at least two of these strategies, the identity was categorized as Unknown. An organization's profile photo was operationalized by referencing the organization in some way (e.g., company logo, name, etc.) rather than containing a picture of an individual, either male or female. The Organization category included tweets from any type of for profit (e.g., news media organization) or non-profit organization (e.g., political organization, counseling services).

The final results were coded by the primary and secondary coders, with each evaluating 50% of the sample to streamline the process. We tested intercoder reliability for content using the first 200 messages and it was calculated at Cohen's Kappa = .433 or

moderate agreement (Landis and Koch, 1977). The same 200 units were coded for sex at Cohen's Kappa = .74 with substantial agreement (Landis and Koch, 1977).

RESULTS

Our first hypothesis stated that both individuals and organizations will use informational support messages with significantly greater frequency than the other four categories.

Table 1

Message Poster and Content Type

	Individual	Organization
Emotional	295	58
Informational	573	700
Directives	100	53
Appraisal	78	12
Other	102	44

H1 was supported as the relation between these variables was found to be significant, X^2 (4, N = 2015) = 222.81, p < .0001. Informational support messages were used in significantly different numbers than other types of support messages. Individuals used informational messages 50% of the time, while organizations used informational messages 83% of the time (See Table 1).

Our research questions asked, what are the most frequent types of social support messages communicated by males and females on Twitter in the #MeToo campaign?

Table 2

Tweet Content and Sex

	Female	Male
Emotional	198	97
Informational	329	244
Directives	69	31
Appraisal	68	10
Other	58	44

In regards to RQ1, we found significant differences with regards to the sex of the message creator and the type of content tweeted. Chi-square value reported is, X^2 (4, N = 1148) = 32.52, p < .0001. Females and males tweet significantly different type of content. In regards to the emotional support category, males tweeted emotional support messages 23% of the time (See Table 2) while females tweeted emotional support messages 27% of the time. Informational support tweets were higher, as males tweeted informational support messages 57% of the time while females tweeted informational support messages 46% of the time. Both sexes tweeted content categorized as directive support 9% of the time.

Further analysis of the data led to examining the popularity of messages by content type (See Table 3). Differences were found in the average amount of retweets compared with the average number of favorites per category. Retweets are the sharing of others' content to your own timeline and expresses the highest available level of endorsement on Twitter. Likes are a lower level of endorsement on Twitter, but still leave a publicly visible trail. The appraisal category stood out from the rest with an average of 52.1 retweets and 103.6 likes per message. The other categories ranged from 19.1 and 28.1 retweets and 41.4 and 65.9 likes per message.

Table 3

Retweets and Favorites by Content Type

	Avg. Retweets	Avg. Favorites
Emotional	22.2	58.2
Informational	28.1	62.7
Directives	25.9	65.9
Appraisal	52.1	103.6
Other	19.9	41.4

While analyzing the data, we noticed differences in the tweets sent at the beginning of the timeframe as compared to those sent at the end of the timeframe. This led us to create a post hoc research question for this project: PHRQ1: Will there be significant differences in content type between the first three months and the second three months of the #MeToo campaign data set?

The results for PHRQ1 showed a significant difference in the content between the first 3 months of tweets and the second 3 months, X^2 (4, N = 2781) = 287.6, p < .0001. Overall, emotional support increased as time went on and informational messages decreased (See Table 4). Emotional support tweets were used considerably less (11%) in the first three months of the study as compared to 26% in the second three months. This is different from informational support tweets, which was considerably higher in the first half with 63% compared with 52% in the last half. Directive and appraisal support tweets followed this pattern with 12% of tweets being directive and 8% of tweets being appraisal in the first half compared to 3% of tweets being directive and 2% of tweets being appraisal in the last half.

Table 4

Message Content Divided by Time Sent

	First 3 Months (1390 tweets)	Second 3 Months (1391 tweets)
Emotional	151	358
Informational	875	728
Directives	164	44
Appraisal	106	21
Other	94	240

DISCUSSION

Our results allow us to draw conclusions in three distinct areas: frequency of informational support in online contexts, directives as a type of social support message, and the development of weak-tie relationships in social support messages.

Frequency of Informational Support in Online Contexts

As noted in the Results section, the analysis of the data confirms our initial hypothesis: individuals and organizations use informational support messages with significantly greater frequency than emotional, directive, appraisal, or other social support messages. This is consistent with previous research that identified informational support as the most common type of social support for a range of issues communicated in computer-mediated contexts (Andalibi, et al., 2016; Rui, Chen & Damiano, 2013; Trepte, Dienlin, & Reinecke, 2015; Rains, Peterson, & Wright, 2015). With regards to sexual violence and harassment specifically, emotional support messages are most commonly communicated in face-to-face interactions (Mason, et al, 2009), but like Andalibi (2016), we found that informational support messages occur more frequently in digital contexts. We speculate there are two reasons for the prevalence of informational support messages in a computer-mediated context.

First, given the heinous nature of sexual abuse and violence, posters may want to provide victims with the information necessary to obtain instrumental social support through face-to-face access to police, legal experts, and other resources, since these types

of interactions are not replicated easily online. Second, Twitter's reach makes it ideally suited to offer informational support messages to widely dispersed victims that augments or extends face-to-face interactions.

Directives as a Type of Social Support Message

It is significant to note that, to our knowledge, this is the first study to include a directive category as a type of social support message. In and of itself, this is an important addition to social support theory since it demonstrates several important issues related to how support might be communicated differently on Twitter. First, the results show that females tweeted twice as many directive support messages as males did (see Table 2). Because women are more likely to be victims of sexual violence and harassment than men (Balonon-Rosen & Adams, 2018; National Intimate Partner and Sexual Violence Survey, 2012), women may be more invested in promoting action for collective, social change. Second, the results show individuals tweeted twice as many directive support messages as organizations. Organizations typically represent a collective of individuals, not just one person's opinion. In tweeting a directive, the organization could be seen, accurately or not, as taking a position on the issue. Since directives are more action-oriented than other types of social support messages that provide resources or emotional comfort, organizations could be perceived as taking a political stand and alienating some potential key publics. Rui, Chen, and Darniano (2013) found similar results in that informational support messages were the most dominant type of tweet sent by health organizations.

Third, according to our research, directive support messages are the second most favorited (liked) types of tweets (see Table 3). Favoriting, or liking, a tweet does several things: it shows up on the liker's profile, the original poster is notified, and favoriting helps it to potentially become a trending topic (more exposure via Twitter). In a way, favoriting is the simplest thing a person can do to show and provide support. Favoriting identifies the issue as important and offers a fundamental level of acknowledgment to the poster. Favoriting also may offer support for those who have not disclosed their trauma to close others in their personal lives. Therefore, favoriting can be viewed as the ultimate type of weak-tie relationship. As Wright and Miller (2010) contend, weak-tie relationships can include frequent phatic communication, but occur between people who are not part of

a common social circle (see the next subsection for a further discussion of weak-tie relationships and their relationship to social support).

Additionally, like other online forums that focused on prompting large-scale, social change to end sexual violence and harassment (Bogen, et al., 2018; Lokot, 2018; Rentschler, 2014; Sills, et al., 2016), the #MeToo movement has a significant purpose: to drive political action to create change. The common use of directive messages as a form of social support could potentially help victims' recovery processes by others acknowledging, through feelings, the gravity of the situation. Overall, directive social support messages are important, given that victims of sexual violence or harassment feel empowered when others acknowledge it (Lokot, 2018; O'Neill, 2018) and experience significant benefits to recovery when positive responses from others are received after disclosing (Ullman & Peter-Hagene, 2014; Borja, Callahan, & Long, 2006).

Finally, we found that in the first three months of our data set there were more than three times as many directive support messages tweeted as in the last three months (see Table 4). If directive support messages are missives of what readers of the post should do, then this implies that the #MeToo campaign transitions social support from only assisting victims at an individual level to assisting them en masse on a societal one. They may indirectly provide instrumental support by changing victims' circumstances through the collective pressure to change laws, prosecutorial decisions, and organizational policies.

PHRQ1 also supports the idea of an action-oriented approach to empathy or support for victims in the initial stages of the #MeToo movement, focusing on missives of what to do (directive support) and where to get help (informational support). The data shows four times as many directive support messages were posted in the first three months than in the second three months. Informational support messages were constant across the six-month time frame, but emotional support messages were tweeted less than half as frequently in the first three months as in the second three months. In other words, individuals posting may have been more concerned about immediately helping victims through offering resources and affecting societal change.

Directive support messages occurred frequently, primarily posted by individuals and particularly within the first three months examined. However, victims perceive online spaces as judgment free zones where victims can talk through their experiences (Bogen, et

al., 2018; Fawcett & Shrestha, 2016; O'Neill, 2018; Sills, et al, 2016). Therefore, directive support messages may affect political action more than expressly aiding individual victims of sexual violence or harassment. Further research is needed to understand why posters are communicating more directive social support messages on Twitter specifically and how this might affect victims.

Development of Weak Tie Relationships in Social Support Messages

There are benefits to victims receiving weak-tie support messages. Victims report feeling stigmatized and embarrassed from the assault and turn to anonymous online support rather than to family and friends (O'Neill, 2018; Smith, 2010). Anonymous users (to the victim) then serve as important weak-tie form of support. For instance, "This #metoo article perhaps best sums up what I and several female friends have been discussing privately" or "On #MeToo and The End of Open Secrets." Victims seeing these informational support tweets may recognize their own experiences more clearly as assault or be more likely to seek out additional help. Similarly, emotional support messages could aid in victim's mental health. For instance, "I can not believe the number of women on my timeline with #metoo stories. #ihearyou and I won't stop listening or turn a blind eye." In the #MeToo era, these types of Tweets act as acknowledgement, may help network individuals with similar experiences, and could aid in their recovery process.

From the perspective of the poster, weak tie relationships can be seen manifesting when examining the results to PHRQ1. To review, there were more informational and directive support messages in the first half of the data set than in the second half. Whether anonymous or known, there appeared an impulse to tweet and retweet resources and directives that could be of value to widely dispersed victims rather than tweeting to a specific individual. As mentioned earlier, posters may wish to provide resources to multiple victims as quickly as possible.

Finally, there are advantages in analyzing how information spreads virally by following hashtags like #MeToo or identifying key influencers. Seemingly, users will see tweets from people with power and status, like Alyssa Milano, and retweet these messages to their own networks. Readers do not know Milano personally, but her message could act to move them to seek out help or to help others. The ripple effect of multiple retweets form weak-tie relationships that may become persuasive when seen en masse.

Our results suggest informational support is more commonly shared through computer-mediated platforms than other types of support. The features of an online environment make it an effective and easy way to share or re-share informational support (Trepte, Dienlin, & Reinecke, 2015). Our research further corroborates this conclusion because over time informational social support messages are dominant in both the first half and second half of the data set.

Given the advantages of access to a larger group of people and resources, anonymity, and the ability to disclose topics to obtain social support from others without taking the time necessary to form a close relationship, weak tie social support messages in digital communications is ideal for many victims and supporters. Sensitive topics such as sexual violence or harassment are particularly suited for online social support messages. Positive responses could lend itself potentially to improving victims' recoveries.

Limitations and Future Research

We encountered several limitations in performing this research. First, to eliminate spam, we required Twitter accounts to have at least five retweets. In doing so, this ensured these tweets were more widely accessed, but these deletions could have eliminated tweets from newer users, thus not taking these new voices into consideration. Doing so could imply that those users with higher social capital were given more credence than newer, individual voices. Future research should focus on representing the individual voices and look at them as a whole.

A second limitation came in choosing to analyze every 10th tweet. Like the previous notation, doing so could have eliminated significant tweets or threaded conversations that users were having about the #MeToo issue. Future research might analyze these conversations to give them a voice in this unfolding conversation. Third, given Twitter's character limitation, there is little room to expand on meaning. Naturally, we could have misconstrued the meaning of a tweet when analyzing it on face value. This also led to difficulty in achieving the highest level of intercoder reliability. This type of research limits researchers in so far as the message's meaning is left up to the coder, which is a dilemma common to interpreting personal communications.

With a limited number of studies done on social support messages sent via Twitter, we recommend more research be done specifically on this medium. Dovetailing this, we

recommend performing further research on social support messages offered online for victims of sexual violence or harassment. In addition, a better understanding of poster's motivation and the effects of reading these posts on victims is needed. Finally, this project just focused on Twitter. We feel further research on #MeToo posts on Facebook or Instagram would give a more complete picture of the movement and its impact on digital communication culture.

CONCLUSION

Twitter is a unique digital platform that is part of society's most common means of communication. To date, there is limited research on social support messages in this context. Our study has not only started to address this research gap, but in doing so it has found a new type of social support unique to Twitter, the directive message. As the #MeToo movement progresses, it is imperative to understand the role digital communication plays in not only understanding victims of sexual violence or harassment, but also in finding ways to help these victims heal.

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