Belongingness, universality, and normalization

Ryan Slobodian

City University of Seattle, Canada

ryanjslob@gmail.com

Abstract. Recently, a growing population has been accessing the social media platform, Reddit, for mental health support (Singer et al., 2014). The current study investigated Redditors' belongingness attitudes while participating in mental health subreddits compared to belongingness attitudes while interacting with offline support networks. Self-stigma and perceived-stigma attitudes of the participants ($N = 512$) were also assessed within the context of mental health subreddit participation, compared to stigma attitudes users felt offline. Findings suggest that participants felt significantly higher belongingness when interacting on mental health subreddits compared to offline networks. Self-stigma and perceived stigma were reduced when participants interacted on mental health subreddits compared to their offline network. The data indicated that higher belongingness on mental health subreddits significantly predicted lower perceived stigma levels. The results suggest that mental health subreddits may offer a positive, safe, anonymous, hopeful, supportive, and scientific environment for mental health discussion. Implications for clinical and counseling psychologists are discussed.

Keywords. cyberpsychology, Reddit, mental health, peer-support, online

Belongingness, Universality, and Normalization within Reddit Mental Health Communities

The Internet has remarkably changed the human experience. The Internet has morphed into a tool that allows us to communicate instantly, keep in touch with distant friends/family, share photos/videos, blog, shop, access information, listen to music, watch television, and stay up to date with news/politics, among other utilities (Lenhart et al., 2010). In the age of technology, more people than ever are using the Internet to fulfill their daily needs; over a quarter of the world's Internet users are between the ages of 16-24 with a common purpose of communicating or sharing information with others (Nadhom & Loskot, 2018).

Recently, the online universe of Reddit has offered an Internet platform for Internet users to share information and to communicate anonymously with one another through various diverse communities. Reddit is an online community-driven platform created for users to submit content (news, pictures, videos, posts, etc.), as well as to comment on or upvote/downvote content posted on the platform (Singer et al., 2014). Since its introduction in 2005, the Reddit community has grown exponentially from a small community of users to becoming the fourth most visited website on the internet behind tech giants Facebook, YouTube, and Google (Marantz, 2018). Recently, Reddit experienced 82.5 billion page visits in a year, making the website one of the most popular social hangouts on the internet (Mills, 2018).

Visitors who frequently access Reddit and maintain active accounts refer to themselves as Redditors – a combination of the words Reddit and editor - to post content as well up/down vote content (Singer et al., 2014). Redditors contribute by commenting on content submissions, and they can create sub-communities, referred to as subreddits. The subreddits are focused on a specific topic, and the content is moderated for misinformation, off-topic/unapproved posts, and harassment, by volunteer Redditors (Singer et al., 2014). Subreddit communities cover a wide variety of topics from current news events to video games, and some communities are specifically devoted to mental health issues (e.g., Obsessive-Compulsive Disorder subreddit community). For example, a subreddit community dedicated to anxiety currently has 200,000 actively contributing members. Mental health related subreddits also target specific mental health issues such as social anxiety and obsessive-compulsive disorder, among others. Social support has been linked to increased mental and physical well-being, especially when individuals are managing a physical or mental health concern (Feeney & Collins, 2015). However, there remains a gap in the literature regarding how online social support benefits individuals and what conditions render the most effective online social support (Eysenbach et al., 2004).

The purpose of this study was to examine the effects of online social support through subreddit communities focused on mental health on levels of belongingness and stigma. Additionally, how users benefit from their subreddits in relation to the management of mental health in comparison to offline support networks was also considered. This study examined how Redditors view their mental health (self-stigma) now that they are part of a vast community of users managing the same issues. As far as the researchers know, this was the first study examining the experience of Redditors within mental health subreddits. This research can be used to inform clinicians about the risks and benefits of individuals going online to participate in mental health subreddits (MHS) to manage mental health issues. By extension, the findings may be useful to inform best practices of online peer support.

Reddit

Reddit is the fourth most popular website on the Internet, with 82.5 billion pages viewed per year (Marantz, 2018; Mills, 2018). Duggan and Smith (2013) surveyed American Internet users and assessed the demographics of Redditors. They found that males were more likely to use the site than females, with 15% of men aged 18-29 accessing the site, compared to only 5% of females. Middle-aged and senior population did not use Reddit frequently. Many Reddit users were White, educated, middle-class, and lived in urban/suburban environments. Reddit may be particularly appealing to young men who are experiencing mental health challenges who may be resistant to seeking out mental health services (Sierra Hernandez et al., 2014).

Belongingness

Belongingness is one of the most essential aspects of human experience, and it remains a need that is pervasive across various cultures, time, and situations (DeWall et al., 2011). Due to humans evolving within the context of small groups, belongingness or strong human connection was a critical element of survival and reproduction (DeWall et al., 2011). Social connectedness/belonging has been demonstrated to promote enhanced physical and psychological well-being (Grieve et al., 2013). Furthermore, belongingness correlates with enhanced wellness in individuals fighting illness (Grieve et al., 2013). Erfani and Abedin (2014) examined the benefits of social networking support for cancer patients and found that belongingness within a group context was associated with higher confidence, optimism, self-

esteem, sense of empowerment, and quality of life, in addition to decreased symptoms of depression, and bolstered activity in cancer treatment participation. These findings provide some evidence that online social support and belongingness may help one to cope with certain health issues.

O'Keefe et al. (2014) found that a decreased sense of belongingness and increased perceived burdensomeness significantly predicted suicidal ideation, supporting that healthy belongingness plays a protective role in combating mental health issues specifically. Similarly, Hong et al. (2012) examined the benefits of online social support/belongingness and found positive psychosocial effects. In spite of these positive findings, many studies have rendered nonsignificant results (e.g., XXX), and more research is needed to assess the effectiveness of online social support concerning mental/physical health issues (Hong et al., 2012). Considering that a significant number of people frequent mental health subreddits, with 600,000 individuals being members of r/anxiety and r/depression alone, the web platform warrants further clinical research.

Benefits of online social support. Given the rapid development of technology and social media platforms, online social support (or peer-to-peer support) is a relatively new area of research on mental health management. Naslund et al. (2016) examined online social support and found several positive effects of peer-to-peer online support in the management of mental health. The researchers found that peer-to-peer online support on Facebook, YouTube, and Twitter resulted in increased social connectedness, group belonging, and coping strategies in users. Furthermore, they found that users experienced increased empowerment, hope, mental health related learning, and treatment engagement/health seeking behaviours. Naslund and colleagues highlighted potential risks of online social support, such as negative comments/feedback and misleading information; however, they concluded that the plethora of benefits of online social support outweigh the negatives and justify further clinical research in the area. Although research on the clinical impacts of online social support is limited, the preliminary evidence suggests positive mental health related benefits for users.

In-person relationships are often associated with social support; however, a growing body of literature has assessed the effectiveness of social support through online communities. Obst and Stafurik (2010) surveyed 160 users from online communities dedicated to providing support for individuals living with a specific permanent physical disability. The results from the survey indicated that members of the online physical disability communities reported positive experiences, specifically regarding moral support and helpful advice. Online social support and feelings of community were associated with users' well-being and personal growth. In a different study, Chung (2013) assessed preferences related to online social support versus offline social support for health-related issues. The results indicated that users who experienced little support offline preferred online communities for social support, and even built deep relationships with various communities and other users. The research results suggested that online social support can be helpful for some people, producing positive effects on well-being, especially for those who may not have a strong offline support network. It appears that more clinical research may be necessary to assess how online social support can be supportive within the context of mental health online communities.

Perceived drawbacks of online social support. Although the perceived benefits of online social support have been observed, several concerns have also been highlighted in the literature. De Matino et al. (2017) investigated benefits and drawbacks of online social support and contended that a significant issue of online support networks is the perceived difficulty to regulate posts and their sources/quality. The researchers indicated that lack of regulation or

control of posts could be potentially detrimental for patients because some posts may contain misleading or non-scientific information. In another study, Coulson and Greenwood (2012) examined the utility of online social support groups for families affected by childhood cancer and found both positive and negative effects. Their research indicated that online social support specifically offered emotional, informational, and self-esteem support, as well as tangible assistance; however, the researchers also found that online support was prone to a lack of responses to posts and problems initiating and maintaining relationships offline. Coulson and Greenwood's research highlighted the importance of establishing and maintaining relationships when considering online social support. Lawlor and Kirakowski (2014) assessed the effectiveness of online social support and found that frequency of use negatively affected recovery from self-stigma. The researchers highlighted that online social support may be a form of social avoidance, which does not adequately challenge nor resolve stigmatizing attitudes regarding mental health. Although previous research has highlighted positive effects of online social support, there also appears to be drawbacks of moderation, offline engagement, and effectiveness that must be considered.

Mental Health and Stigma

According to recent statistics, nearly one in five Americans manage a mental health issue, which equates to roughly 45 million people in the United States alone (Cherry et al., 2018). In Canada, 1 out of 3 Canadians manages a mental health issue in their day-to-day lives, which is roughly 9.1 million people (Pearson et al., 2013). When considering the prevalence of mental health issues, an increasing concern is access and barriers to professional mental health support. Researchers believe that a major reason why individuals are often reluctant to seek professional support to help manage their mental health is due to the stigma in society surrounding a mental health diagnosis; specifically, self-stigma - negative stigma attitudes constructed by the self - and perceived stigma - negative stigma attitudes constructed by society (Vogel et al., 2013). When considering the prevalence of mental health issues and the low rates of mental health support access, there is a clear need for professionals/researchers to understand stigma better, and how to mitigate it.

Although the specific negative stereotypes/attitudes regarding mental health vary across cultures depending on diverse cultural values, resistance to seeking mental health services due to stigma is consistent (Thornicroft, 2008). Other confounding variables should be considered, such as discrimination, transportation, and financial burden (Alegría et al., 2018); however, stigma – specifically shame - remains a significant factor in individuals' reluctance to access mental health care services in the United States and Canada (Knaak et al., 2017; Thornicroft, 2008). Unfortunately, 52%-74% of individuals living with mental health issues in the United States and Europe do not seek professional mental health support (Clement et al., 2015). By extension, stigma also promotes the underreporting of mental health in society in general (Clement et al., 2015).

Current strategies to combat stigma. Wang et al. (2017) examined current strategies used to combat stigma attitudes. The researchers highlighted the evasion method, wherein the individual detaches from the stigmatized group in some way (e.g., denying help for depression to not receive the label of being depressed); however, while negative emotions/attitudes may be temporarily relieved, the negative attitudes/emotions persist due to the individual not challenging stigma attitudes. The evasion method appears to be a negative way to cope with mental health stigma that can promote further negative emotional processing.

Opposite of hiding or evading stigma, individuals can also employ strategies that challenge stigma (Wang et al., 2017). This view of challenging stigma is rooted in the theory that stigma is socially constructed and that attitudes can shift over time (Blair, 2002). One strategy that is commonly used to combat stigma is reframing, where individuals use aspects of a negative stereotype and turn it into a positive trait (Wang et al., 2017). For example, someone with social anxiety may turn perceived negative characteristics of self-criticism into positive traits such as unconditional caring for how their behaviour affects others. Reframing allows the individual to view negative stigma as strengths and is associated with a decrease in negative self-evaluation (Wang et al., 2017). Another strategy to combat stigma is self-labelling, which involves the individual purposefully using negative stereotypical slurs to refer to themselves (Galisky et al., 2013). By taking the stereotype's power away from the oppressive group, a negative slur can be used to empower rather than demean a stigmatized group (Galisky et al., 2013). Self-labelling, along with reframing, has demonstrated long-term positive benefits for groups experiencing stigma (Wang et al., 2017).

The Current Study

The current study utilized a within-subjects, mixed-methods approach, combining quantitative and qualitative measures to examine how offline belongingness, online self-stigma, and online perceived stigma vary as a function of online belongingness. A qualitative question was included at the end of the present study to provide insights into how Reddit and offline supports affect the management of their mental health.

The present study has four main hypotheses: 1) levels of belongingness will be higher online rather than offline, 2) self-stigma and perceived stigma with be lower online compared to offline, 3) level of online belongingness will be negatively related to stigma levels, 4) mental health subreddits will provide more positive mental health support than negative (Naslund et al., 2016; Sowles et al., 2017).

Method
Participants

The current study did not discriminate based on the age, race, or gender of the participants; all were welcome to partake, given their active engagement in mental health subreddits (MHS) on Reddit. The responses indicated that the participants were female (59.23%), male (35.84%), and transgender[1] (4.94%). Participants' self-reported ethnicities were predominately White (78.76%), with a minority of participants reporting that they were Multiple Ethnicity (8.15%), Asian (5.58%), Hispanic (4.29%), African (1.50%), Arab (0.86%), and Indigenous (0.86%).

Age was also assessed during the demographic portion of the survey, with the participants largely falling within the age range of 18-34 (45.28%), Other age groups represented in the sample included ages 25-34 (40.56%), 35-44 (9.66%), 45-54 (4.08%), and 55-64 (0.43%). Regarding education, the participants' responses were diverse and included some high school (7.51%), high school diploma (16.95%), 1-3 years of college/university combined (36.91%), college/university degree (20.17%), some graduate school (8.15%), and having completed graduate school (10.30%). The employment status of participants included being employed full-time (31.33%) or part-time (14.81%), unemployed/looking for work

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[1] This section included participants who also self-identified as non-binary, non-conforming, male/female questioning gender, male/female transgender, and genderqueer.

(10.30%), in school (26.18%), retired (0.64%), unable to work (13.52%), engaged in contract work (1.07%), and working as a stay at home parent (2.15%).

The current study assessed the type of MHS the participants engaged in the most frequently, and how often the participants used Reddit on average per week. The participants were most active in the following types of subreddits: depression (21.46%), general anxiety (7.51%), obsessive compulsive disorder (3.22%), schizophrenia (4.72%), social anxiety (6.01%), bipolar (2.79%), post-traumatic stress disorder (PTSD; 5.36%), addiction (6.87%), video game addiction (0.86%), family system issues (4.08%), relationship issues (4.29%), personality disorders (5.58%), Attention Deficit Hyperactivity Disorder (ADHD; 1.50%), Asperger's (3.65%), autism (1.50%), depersonalization/derealization (3.86%), and other (16.74%). It is important to note that no formal diagnosis is needed to be a member of these subreddits. Participants reported using Reddit several times a day (68.03%), about once a day (19.31%), several times a week (8.80%), once a week (3.00%), and less than once a week (0.86%).

Sampling Procedures

Participants were recruited randomly through IRB approved advertisements posted within various MHS with the consent of the relevant subreddit moderation teams. A total sample of 512 participants completed the survey. The participants had the option to provide their Reddit username within the survey to enter a random draw for either a $50 Apple or Google Play gift card. The Reddit usernames mitigated any identifying information and protected the participants' anonymity.

Measures

General Belongingness Scale (GBS). To assess belongingness levels of participants online and offline, the current study utilized Malone et al. (2012) 12-item GBS to assess levels of belongingness on a 7-point Likert scale (1 = *strongly disagree*; 7 = *strongly agree*). The scale contains six questions assessing acceptance and inclusion, and six items (reverse scored) assessing rejection and exclusion. Scale totals range from 12-84, with higher scores indicating increased belongingness. The GBS has demonstrated acceptable psychometric properties and is positively related to social connectedness, social safeness, life satisfaction, subjective happiness (Satici & Gocet Tekin, 2016).

Self-Stigma and Perceived Public Stigma Scale (SSPPSS). To assess perceived/self-stigma levels of participants online and offline, the current study utilized Kendra et al. (2014) 14-item Self-Stigma and Perceived Public Stigma measure. The 14-items utilize a 4-point Likert scale ranging from *strongly disagree* to *strongly agree* and assesses two separate constructs related to stigma (broken up into seven questions each): perceived stigma and self-stigma. High scores on the self-stigma and perceived stigma scales indicate a greater sense of stigmatization experienced by the participants. There also is strong support for the SSPPSS' factor structure, validity, and reliability (Kendra et al., 2014).

Procedure

The first part of data collection in the current study involved reaching out to the moderator teams on each MHS to gain permission to post the study advertisement in the community. Most moderators needed proof of ethics approval from the IRB, which the researcher provided. Most moderator teams were responsive and allowed the post. Only a few MHS did not allow the researcher to post the study due to community rules. After moderator

approval was gained, the study's advertisement was posted on various subreddits and participants clicked a web link to access the survey if they wished to participate.

After providing informed consent, participants completed a series of demographic questions (gender, race, age, education, etc.) followed by the GBS and SSPPSS, which participants filled out twice to assess both online and offline levels of belongingness and stigma. The participants were then asked to respond to a qualitative question to provide better insight into how Reddit and their offline network positively or negatively affect participants' mental health. This question was: *In a few words, please describe how your subreddit community and your offline network (friends, work, family, classmates, school, etc.) helps or hinders your mental health.*

Data collection progressed until the desired sample size of 384 participants (based on a priori power calculations) was reached. Due to the high interest in the study, 512 responses were collected before the survey was closed. The qualitative data were coded according to the common theme evident in the participants' answers.

Results
Online Versus Offline Belongingness
A paired samples t-test was conducted to compare Online Belongingness scores to Offline Belongingness Scores. There was a statistically significant difference in the level of belongingness experienced by participants online versus offline. As predicted, participants reported significantly higher Online Belongingness ($M = 56.81$, $SD = 14.34$) than Offline Belongingness ($M = 42.50$, $SD = 16.45$), $t(511) = 17.76$, $p < .001$, $d = .78$.

Online Self-Stigma versus Offline Self-Stigma
A paired samples t-test was conducted to compare Online Self-Stigma scores to Offline Self-Stigma Scores. There was a statistically significant difference in the level of self-stigma experienced by participants online compared to offline. As predicted, participants reported significantly lower Online Self-Stigma ($M = 15.95.$, $SD = 6.00$) than Offline Self-Stigma ($M = 21.87$, $SD = 5.98$), $t(511) = -25.87$, $p < .001$, $d = -1.14$.

Online Perceived-Stigma versus Offline Perceived-Stigma
A paired samples t-test was conducted to compare Online Perceived-Stigma scores to Offline Perceived-Stigma Scores. As predicted, there was a statistically significant difference in the level of perceived-stigma experienced by participants online and offline. As predicted, participants reported significantly lower Online Perceived-Stigma scores ($M = 15.39.$, $SD = 4.44$) than Offline Perceived-Stigma scores ($M = 26.20$, $SD = 5.96$), $t(511) = -44.90$, $p < .001$, $d = 1.98$.

Relationships between Online Belongingness and Stigma
The researchers' hypotheses were supported by the data. As predicted, participants' levels of Online Belongingness were significantly correlated with their levels of Perceived-Stigma, $r = -.48$, $p < .001$. Increases in Online Belongingness scores were associated with decreases in levels of perceived-stigma.

The correlation between Online Belongingness and Self-Stigma scores was also significant, $r = -.37$, $p < .001$. Increases in Online Belongingness scores were associated with decreases in levels of self-stigma. Online Belongingness accounted for 23% of the variance in

participants' perceived-stigma levels, whereas Online Belongingness accounted for 14% of the variance in the participants' self-stigma.

Qualitative Results

The first author coded the participants' responses based on common themes that were identified in the responses. The researcher constructed two new variables indicating the type of support received on MHS and the type of support received from the participants' offline network. The following codes were used for the "Type of Support" variable along with the percentage of responses: (a) universality and positive peer support (e.g., validation) (46.7%), (b) Reddit does not help mental health management (5.3%), (c) positive psychoeducation (2%), (d) combination of positive psychoeducation and peer support/universality (4.5%), (e) significant stigma reduction (.4%), (f) combination of positive peer support, universality, psychoeducation, and stigma reduction (14.8%), (g) did not answer question (19.9%), and (h) Reddit neither helps nor hinders mental health management (6.3%).

The following codes were used for the "Online or Offline Support" variable and with the percentage of responses: (a) online helps and offline support is non-existent (24.6%), (b) online helps, and offline helps but does not understand mental health (28.9%), (c) Offline helps more than online (3.3%), (d) both online and offline help (11.5%), (e) Neither offline or online help (3.9%), and (f) chose not to answer (27.5 %). The percentage of responses appeared to indicate that mental health subreddits are an alternative to a limited offline mental health support system.

Common Themes – Reddit as a Tool for Managing Mental Health

When considering the qualitative responses in the study, a large number of positive themes were identified that highlight how MHS helps participants manage their mental health. The positives aspects of Reddit in helping manage participants' mental health were: that Reddit provides an outlet for social support for participants with unsupportive families or difficulties talking about mental health offline with family and friends, that Reddit is a free alternative for those with limited financial resources to seek professional mental health support, that giving support to others through post responses is meaningful, that Reddit provides those living in remote communities access to a supportive mental health environment, that the anonymity of Reddit is beneficial for participants experiencing mental health stigma within their culture, that Reddit is a useful source for recommendations for mental health services and for psychoeducation, and that Reddit provides a supportive venue for validation of experience.

Although the research highlighted many positive effects of MHS's ability to help manage mental health, a small number of participants reported drawbacks. Some of the negative aspects of MHS reported by participants were that posts are not scientific or educated, that reading the posts is a waste of time, that participants are afraid of posting due to rejection or downvotes, and that the post content can be triggering in nature.

Discussion

The purpose of this research study was to examine the effects of MHS on users' management of mental health, specifically within the context of belongingness and stigma levels online versus offline. The present study had four hypotheses.

#1 Belongingness Higher on MHS Compared to Offline

First, it was predicted that belongingness levels would be higher within MHS compared to offline. The data derived from this study indicated that users appear to feel a higher sense of

belongingness when interacting online compared to offline networks such as family or friends. The results align with the findings of Sowles et al. (2017) research, which found preliminary evidence to suggest Reddit is a supportive, environment for users attempting to quit cannabis. The evidence produced in this study suggested that Redditors feel an elevated sense of belonging within multiple MHS compared to their offline support networks (e.g., family, friends, coworkers, etc.). The qualitative data gathered in the present study suggested that the participants' higher sense of belonging online rather than offline may be due to an unsupportive, non-existent, neglectful, offline network. Due to users' unsupportive offline networks, Redditors may turn to subreddits to find a place of belonging to support their mental health management. Some of the qualitative data indicated that even though offline networks may be supportive of participants' mental health, they may not understand the severity of mental health concerns or do not have the capacity to emotionally support due to a lack of experience and knowledge related to mental health. The qualitative data suggested that the perceived lack of mental health understanding and emotional support from offline natural supports may drive participants to seek like-minded individuals on MHS to openly discuss barriers in the management of mental health with others who fully understand the experience. Living in rural communities with little mental health support and negative cultural bias toward mental health were also demonstrated in the qualitative data as factors that may support higher belongingness online rather than offline.

MHS appear to offer a community of belongingness to users who may feel disconnected or not supported offline. Mental health clinicians may find it useful to incorporate MHS into a client's mental health management regimen to promote belongingness if it cannot be derived in real-life. Researchers may also find it prudent to investigate belongingness on MHS more in-depth to develop best practices for online mental health support.

#2 Perceived-Stigma and Self Stigma lower on MHS Compared to Offline

The data in the present study demonstrated that this hypothesis was confirmed. The current data indicated that participants experience more significant mental health related stigma offline and MHS may offer a platform to openly discuss mental health management without the stigma attached. The results from the current study are consistent with previous research, which posits that online mental health communities foster a sense of hope and challenge stigma attitudes (Naslund et al., 2016). Participants indicated that user anonymity and having diligent moderator teams to vet negative or unscientific mental health related content is helpful, specifically in the reduction of stigma. Previous literature indicated that moderators were necessary to create a safe, productive, and scientific online environment to discuss mental health concerns (Huh, Marmor, & Jiang, 2016). Participants' experience with MHS offer preliminary evidence to suggest that concerns raised about effective moderation (e.g., XXX) appear to have been mitigated by diligent vetting of posts in most communities. For example, a comment stating someone with depression "just needs to get over it" would be swiftly removed and the user may be banned from the subreddit. Some MHS utilize algorithms to help protect the community from negative, triggering, or unhelpful discourse. Having such a strong watchdog may help to reduce stigma when using MHS.

#3 Online Belongingness Negatively Correlated With Stigma Levels on MHS

The results indicated that belongingness online appeared to be significantly related to a decrease in perceived-stigma and self-stigma. Many participants cited anonymity and positive peer support as traits of subreddits that foster a sense of belongingness, community, and stigma reduction. These findings are contrary to previous research suggesting that online peer support platforms do not sufficiently reduce stigma, specifically users' self-stigma (Lawlor &

Kirakowski, 2014). The qualitative data indicated that participants felt encouraged by others to seek professional mental health support and to try various management strategies other users had learned through therapy and professional psychoeducation. Previous literature suggested that high stigma decreases the likelihood of individuals seeking professional mental health support (Knaak et al., 2017), and the current study offered preliminary evidence to suggest that MHS may actually serve as a platform to promote health seeking behaviours and may be an option to mitigate many barriers to accessing mental health support (e.g., cost, transportation, discrimination, stigma, inflexible schedules; Alegría et al., 2018).

#4 More Positives than Negatives on MHS

The qualitative data in this study showed that MHS does offer positive mental health support (i.e., social support, psychoeducation, stigma reduction, etc.) and that more positive than negative outcomes of using MHS were reported. These results are consistent with previous literature, which demonstrated that Reddit could offer a positive, supportive space to discuss struggles and addiction (Sowles et al., 2017). Many of the negative comments towards MHS regarding mental health management were rooted in mental health issues, such as anxiety. For example, common themes of the negative responses were that participants were scared to post in the community out of "fear of being judged" or "down-voted". However, these concerns were limited to a minority of respondents. In contrast, a majority of participants indicated that MHS offers a place for positive peer support, understanding, empathy, universality, normalization, psychoeducation, stigma reduction, catharsis, openness, and most importantly, hope for positive change. For example, one participant explained, "anonymity creates openness" on MHS, and that the space was "safe." An overwhelmingly common theme in the data was that, by frequenting on MHS, participants "did not feel alone" in their management of mental health.

When considering these positive commonalities within the participants' responses, one cannot help but draw similarities to the benefits of group therapy. Universality, psychoeducation, catharsis, normalization, positive peer support, validation, and hope, are all traits central to the foundation and efficacy of the group therapy process (Jebreel et al., 2018; Yalom & Leszcz, 2005). Given how important these traits are to effective mental health management, the current study's preliminary data suggests that MHS may be therapeutic for some users.

Much of the previous literature suggested that there is little therapeutic value to online mental health peer support, and that these relationships are not as valuable as offline interpersonal connection (Eysenbach et al., 2004; Hatchel et al., 2019; Price-Robertson et al., 2019). However, the data in the present study offers a different point of view. For individuals unable to access mental health peer support offline due to lack of natural supports, therapeutic supports in remote locations, stigma, cultural issues with mental health, and limited financial resources, MHS may offer a positive platform to serve this population and support individuals to seek the in-person mental health care they require. Furthermore, the present study asserts that mental health professionals/researchers need to begin working with the Internet, rather than fighting against it. Statistics indicate that Internet usage continues to grow (Lenhart et al., 2010), and there is a growing population that may be more comfortable interacting on the Internet or social media compared to offline. The field of mental health should begin to explore online peer support and mental health service delivery to these populations. We are not advocating for MHS to replace professional, in-person mental health support; instead, these findings suggest that mental health subreddits may be helpful as a part of an individual's mental health regimen. The present study also asserts that MHS may be a supportive outlet for those who may not have adequate support or resources offline to seek mental health support.

Limitations

Some participants pointed out that the meaning of "offline support" was too broad in the present study, encompassing immediate family, extended family, friends, and co-workers. When considering the comprehensive nature of the study, the inclusion of all offline natural supports in the questionnaire was necessary, but the present study was not able to decipher which offline supports were most helpful to the participants without the qualitative data. Issues arose when some participants chose not to answer the qualitative question, which would have helped quantify the specifics of the participants' offline supports. If participants did not answer the qualitative question, their answer was coded as "did not answer", which is problematic when attempting to gather an accurate representation of specific offline mental health support.

While the data in the present study appeared to demonstrate that MHS can offer positive mental health support, the issue of self-diagnosis is problematic. Users are not required to access professional mental health support before accessing MHS. In addition, the volume of most MHS is too large for moderation teams to interview users before they participate. Therefore, some users may not be adequately diagnosed, and they may be participating in an MHS that is not the best fit for their mental health needs.

While the scope of the study was broad in nature and rendered interesting results regarding belongingness and stigma, the study did not have the scope to investigate specifics as to what exactly drives higher belongingness and lower stigma on MHS. Although the qualitative data provided some context as to why participants perceived higher levels of belongingness and lower levels of stigma online relative to offline, the present study employed a survey methodology and could not establish causation.

Future Directions

When considering the positive themes identified the data, it may be clinically significant for future research to investigate the efficacy of actively participating within MHS as part of clients' regular mental health management regimen (e.g., going to therapy, exercising, medication, mindfulness/meditation, diet, etc.). Some MHS also ask psychotherapists to host a question/answer period where Redditors can ask mental health specific questions and receive evidence-based/scientific psychoeducation. This may be a new area of inquiry that may have positive psychosocial effects on Redditors' management of their mental health.

When considering the health benefits of stigma reduction (e.g., increased health seeking behaviour), it may also be clinically valuable to investigate if participation on MHS significantly increases health seeking behaviours. The present study offers interesting preliminary data to suggest stigma is reduced while using MHS. Given that perceptions of both public and self-stigma have been found to act as barriers to help seeking (Bathje & Pryor, 2011), future research should examine whether participation in MHS predicts greater motivation to seek professional help.

Another avenue for future research is to examine what draws participants to MHS. The findings of such research could be used to develop tailored online mental health communities or services to target a specific population that may not have adequate mental health care offline. By extension, there are opportunities to investigate in-person MHS support groups in local areas. Although anonymity is central to creating a safe, non-stigmatizing, and supportive space to discuss mental health on MHS, some users indicated that there may be benefit in organizing meet ups in the community to support one another. Investigating the value of such meetings may be beneficial to the future of mental health management on MHS and to address the

absence of real-life connections, which was identified as a concern in the previous literature regarding in-person relationships.

The current study did not have the scope to investigate each MHS in detail. It may be clinically valuable for future research to look at each MHS and assess for positive peer support, positive psychoeducation, and stigma reduction. Often there are multiple subreddits that focus on the same mental health category (e.g., depression). Some communities may be more effective at encouraging mental health management compared to others. Investigating each subreddit may be clinically useful if mental health professionals want to include participation in mental health subreddits as part of their client's management regimen.

While the present study was inclusive of all sexes, genders, cultures, and ethnicities, it may be valuable to investigate the peer support in culturally specific subreddits; specifically, the LGBTQ2S+ population. Previous literature suggests that the LGBTQ2S+ population has a two-fold risk of completing suicide and for mental health issues compared to heterosexual and binary peers (Yarns et al., 2016). It may be clinically relevant to investigate whether MHS can act as an easily accessible, positive, safe space for this population to openly discuss similar problems with like-minded individuals. It may also be clinically valuable to investigate how specific cultures discuss mental health on MHS compared to offline. Some participants indicated a reluctance to discuss mental health openly within their specific cultures. Future research looking at culturally specific mental health discussion online versus offline may facilitate a strong social justice approach in the area of mental health advocacy and education for cultures where mental health may be highly stigmatized.

Call to Action

When considering the results from the current study, MHS appear to offer a safe, supportive space for users to discuss mental health openly and receive various types of support. Perceptions of belongingness were higher within MHS than offline for a significant portion of users; conversely, both perceived and self-stigma were lower in MHS than offline. In addition, many of the reported benefits of using MHS as a tool for mental health appeared to be therapeutic in nature (universality, hope, catharsis, etc.). There was also preliminary data to show that a significant portion of users that benefit from MHS may have a weak offline support system or cannot adequately access mental health support. It would be prudent for clinicians and researchers to take the data derived from the present study and consider how to best integrate online social support into mental health management for clients who may benefit from it. Online social support may not be for everyone, but the data in the present study indicate that there is a population that benefits from a supportive online space to discuss mental health.

Conclusion

The current study provides preliminary evidence to suggest that MHS are a safe, positive, supportive, and encouraging space to help users manage mental health. The data demonstrated that users feel a significantly greater sense of belongingness and lower self/perceived stigma on MHS compared to their offline support network. The current study also gathered qualitative data that suggested the population of individuals using MHS as a tool for mental health management may not have supportive or understanding offline supports, may have not have the financial flexibility to seek professional mental health support, may live in remote areas where mental health services are scarce, or the offline network may not be a safe space to discuss mental health due to cultural bias. These findings indicate that MHS may offer

a safe space to manage mental health issues through peer consultation for individuals who may not have the luxury to lean on an offline support network for mental health support.

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