Brief Report

Social isolation and Social Media Consumption among Graduate students during COVID-19: An Examination using Social Comparison Theory

Shawna Sisler[1*], Jacqueline Kent-Marvick[1], Sarah E Wawrzynski[1], Ryoko Pentecost[1], Lorinda A Coombs[1, 2]

[1]University of Utah, College of Nursing, 10 2000 E, Salt Lake City, Utah, United States

[2]UNC-Chapel Hill School of Nursing and Lineberger Comprehensive Cancer Center, NC, United States

[*]**Corresponding author:** Shawna M. Sisler, University of Utah, College of Nursing, 10 2000 E, Salt Lake City, Utah, USA.

Introduction

The COVID-19 crisis transformed the way we communicate with each other. Pre-existing theoretical frameworks can build structure out of the chaos; social-interaction theory is one of these. During our social distancing and prior to the vaccine's arrival, physical distancing was adopted as the primary strategy to 'flatten the curve' of the virus's spread. The human desire to connect, however, led to increasing reliance on social-platform outlets. Yet meaningful communication in these forums is elusive and often results in unsatisfying interactions that lack the natural cadence of in-person communications. There is a need to reflect back on how and why our various styles of social-media consumption often paradoxically increase rather than ameliorate our feelings of social isolation. Following this overview, the authors will recommend ways to recognize and change such counterproductive patterns of online activity.

Keywords: COVID-19; Social isolation; Social media; Social comparison; Coping mechanisms

Social isolation in the time of COVID-19

Individuals who feel socially disconnected or lonely suffer from more negative health outcomes, both mental and physical with the public-health mandates of COVID-19, an unprecedented number of people are reaching out through social-media channels to fill their desire for camaraderie or social support [1-5]. Interestingly, these virtual connections do not guarantee that our social needs will be met. Depending on an individual's emotional state, level of self-confidence, and social-media consumption style, the virtual connections they build in a social network exacerbates feelings of social isolation, and may have a negative impact on health [6].

Prior to COVID-19, we enjoyed a panoply of options to converse and connect, both online and in person. In a post-COVID landscape, in-person group interactions have been suspended; social media and online interactions have taken center stage. This new social-interaction architecture is accompanied, however, by unexpected social comparison and self-scrutiny [7]. In these uncertain and stressful times, we know that individuals tend to lean heavily on their social networks to validate their experiences in an effort to support wellbeing and/or self-esteem [8]. To cope in these novel conditions, we seek reassurance that we are safe in our interactions and relationships. That quest is complicated by the fact that our insight and coping ability may change in any given week, day, or moment.

In this post-COVID social climate, we are forced to communicate through virtual appointments; many are finding it harder than ever to connect at organic, meaningful levels. This sets up a conflict: we want and need to encourage scenarios where

people support each other, yet it is rare that our mental health or general attitudes allow us to synchronize and engender a shared empathy during stressful times. Instead, primal survival instinct kicks in, causing us to reconcile the most basic blocks in our support structure. Any cognitive dissonance experienced at an individual level unconsciously introduces social comparison to create meaning where we need it and can even cause a misattribution of value or make more global assumptions about our relationships as they relate to one encounter [9,10].

Framework: Social Comparison Theory

When the psychologist Leon Festinger introduced Social Comparison Theory in 1954, his intent was to recognize that people naturally compare themselves to others as a part of their self-evaluation [11].

The theory essentially postulates that, in unclear times, individuals will engage in:

(1) self-evaluation across social norms or opinions (i.e. a fill-the-gap approach);

(2) personal performance comparisons with others in order to improve or compete [11]. As a result of social changes due to COVID, we can see that the majority of Americans are forced into engagement with social media and telecommunication in order to stay connected with support systems and remain engaged.

Framed and harnessed in a productive way, social comparison offers benchmarks for an individual to gauge value or feedback, which may result in greater self-insight. Most often, people engage in a strategy that fits their emotional or informational needs, and choose to compare themselves to similar and relevant others [11,12]. Ironically, in times of personal crisis or lower self-esteem, social comparison can have deleterious effects on wellbeing and can negatively impact self-esteem [13]. The nuances of social comparison are often portrayed as a duality, sometimes called upward and downward comparison.

Upward and downward comparisons

Whether one engages in "upward comparison" (comparing the self to others deemed better) or "downward comparison" (comparing the self to those deemed worse), the major drivers for the value of the experience (i.e., for whether it is considered positive or negative) stem from an individual's self-esteem and cognitive framing [13-15]. Tesser and Collins identified distinct psychological forces that drive self-evaluation and its effects on self-esteem, highlighting the role that 'relationship closeness', as a concept, plays in how we assess ourselves. Social comparison tends to occur more frequently in our local network (for example, when evaluating one's performance with that of a friend's), rather than in broader social contexts (such as when comparing oneself

to a national average). This is referred to as the "local dominance effect" [16]. In a socially isolated COVID landscape, this feels particularly relevant. As an individual struggle to deal with a perceived condition of social isolation- or loneliness, it is natural for them to seek out close, like-minded friends for affirmation or validation of one's experience [17].

However, we also know that social comparison impacts self-esteem and is associated with wellbeing Tesser and Collins, feelings of regret [18], increased competitive drive, the feeling of a missed opportunity, and even feelings of scorn and envy [13,18-24]. In times of crisis, self-esteem tends to decrease even more than usual, making individuals more prone to interpret any differences as deficits, rather than opportunities [24]. Keeping in mind that one's proximity to a standard or goal increases a social-comparison effect and that distance decreases it, COVID-19 introduces a novel dichotomy of connectedness wherein our friends (the ones we need for support in crises) also become our primary comparison targets. Thus, depending on an individual's dynamic goals and level of self-esteem at the time of an encounter (as in a Zoom call), surprising or even disturbing feelings may result from this self-evaluation, ones that may be so novel that the individual lacks the coping skills to understand them fully.

As a simple example, individuals who are goal-driven in an interaction may unconsciously adopt an upward-comparison approach when they learn of a friend's success in homeschooling during COVID, and respond to it as a worthy challenge. An individual taking such an approach seeks a goal of mastery, which protects them from viewing it as a negative competition [25]. The individual believes they can change. By contrast, an individual with a fixed mindset (i.e., a belief that he/she cannot change or grow) will approach upward comparison with envy, diminishing their overall wellbeing [26]. Those individuals who view their position as malleable, utilizing a growth mindset, tend to frame an upward comparison as an inspiring rise to challenge, an opportunity to improve themselves [26]. The catch is that the same person can employ both of these strategies in different times or situations; we are not bound to just one approach. Depending on our self-esteem and goals, we tend to employ the strategy needed to make sense of the situation. By identifying the better approach for a given situation, we can take steps to enhance or ameliorate the impact of social comparison.

Social media consumption style

To understand how online interactions and social comparison work together, it is critical to identify the user's style and what factors may be beneficial or detrimental to mental health. For example, Forest and Wood (2012) found that individuals with low self-esteem who regularly use social media to express their thoughts (in a presumably safe environment) often fall victim to a

cycle of social comparison that exacerbates their low self-esteem [27]. There is a similar disenchantment with, or disappointment in people who overly curate their online persona, resulting in a sense that "real life" can never live up to their expectations [28].

Researchers continue to attempt to identify specific mechanisms that result in positive online interactions; preliminary results appear to suggest that purposeful and intentional engagement yields positive results [29]. Examples of purposeful engagement include: searching for a like-minded community, specific information, or support from a specific community. Reciprocal exchanges help form relationships and a sense of community; self-disclosure and interaction facilitate a sense of integration with others [30]. A strong sense of online social support is facilitated by authentic connections that enhance self-efficacy and resilience [17,31]. Interestingly if individuals use go online to talk to friends, less depression was experienced. If a person talked with stranger, the opposite was found; they reported increases in depression [32].

Passive use of social media exemplifies an observational approach with minimal engagement with other users [33]. While some passive use can be helpful in determining group norms, regular passive social-media use has been shown to reduce wellbeing [25,35,36]. However, the effects of use on well-being are dependent on how individual use sites [32].

Aligning Use with Self-Assessment

Wherever individuals find themselves on the social-comparison continuum, we can use social media to bolster our connections. Most people wish to foster more natural and rewarding interactions with our communities, but how does this happen in a new world of virtual interactions? Borrowing from well-described positive psychology interventions and social-psychology theory, we discuss below a range of interventions to address and realign our responses to this COVID-19 social landscape as it relates to our dynamic social-media consumption.

Upward comparison and its interventions

An example of upward comparison could be a situation where a parent of a young child, weary from quarantine and generating homeschool activities, witnesses another parent posting about their creative family projects and excitement about family time on social media. Sensing a difference in attitude or effort, this parent may experience their social comparison as either a positive response of hope and inspiration or as a negative response of dissatisfaction or envy. Depending on the response, a range of interventions can alleviate the negative effects of social isolation or self-esteem. In the case of the parent who is inspired by the comparison, a successful strategy has been to start with small changes toward the goal. Shifting the frame of our success to smaller steps engenders the momentum needed to achieve the goal.

An example of a negative effect of downward comparison would be to respond with envy, or disappointment in one's performance or situation. Using the converse of the example above, this parent would view the excellent homeschooling by the other parent with regret that their family might never be able to achieve something of such quality. Employing a fixed mindset, the parent finds little likelihood that they can meet a similar standard. Two practical interventions that can help pivot an individual away from feelings of isolation or dissatisfaction with their current situation are (1) the practice of self-compassion [37], and (2) increasing the sample size of the comparison [38].

Self-compassion is a common exercise in mindfulness in which an individual experiences the difficulty of a moment (e.g. feeling isolated), acknowledging the pain; yet they embrace their feelings with kindness and care toward the self [37]. In the context of physical distance and resultant difficult interpersonal communication that characterizes our current COVID-19 crisis, it is particularly salient to remember that we all share this very human, very humbling experience. Neff (2020) goes on to suggest that when a person can connect with this shared sense, it may enable the power needed to go through a painful encounter and make way for personal growth and transformation. An in-depth exploration of self-compassion and its related exercises may be found at https://self-compassion.org/tips-for-practice/.

In addition to building self-compassion, other therapeutic approaches such as Acceptance and Commitment Therapy (ACT) or integrating the Buddhist principles of equanimity and acceptance may increase an individual's level-headedness, so as to better address imperfect environments, such as COVID-19 [39]. If these skills feel too amorphous or far-reaching in the moment, the quickest remedy toward feeling isolated or negative in social comparison is to widen your sample size in your social-media browsing targets. In other words, the more people to whom you compare yourself, the more social comparison's negative effects tend to decrease [39].

Downward comparison and its interventions

In downward comparison, a positive outcome could be an expression of gratitude for one's current situation. As another example, when an individual is scanning the social-media feed, they may recognize how lucky or grateful they are to have all their social needs met during COVID-19. To enhance this positive effect, a simple intervention might be to start a pandemic diary, into which the individual could jot down these moments of gratitude or appreciation as they occur. During stressful times or times in which social isolation feels too heavy, the individual can then reread the entries in order to ground any current less adaptive feelings, reminding the individual of positive cues in life [40,41].

When an individual respond to downward comparison with a negative response, their perspective may result in scorn. A scornful response would be to see another person's efforts to cover basic social needs as evidence that they must have done something wrong along the way and that their predicament is a result of that choice. It is a fixed-mindset way to resolve the uncomfortable feeling that "bad things may happen to me, too." By assigning the blame to the other person, the individual making the comparison feels more distant from others, and from the undesirable or scary situation at hand. The assignment of blame is essentially a defense mechanism employed in order to make sense of the uncertainty (Table 1).

	UPWARD COMPARISON Example: One parent comparing their family's homeschooling efforts with those of another family which seemingly has it all together and is enjoying the time.	**DOWNWARD COMPARISON** Example: A person reflecting on another person's struggles during social isolation.
Positive Effects	Response: Hope, Inspiration *Response example:* "Those parents are so creative. I love their energy. I should try to engage a bit more." *Possible enhancement:* Be bold but remember to start small. "Small wins" will build the momentum and confidence needed to reach the larger goal.	Response: Expressing Gratitude *Response example:* "I am so grateful that I have all my major needs met during this crisis." *Possible enhancement:* Start a diary during this pandemic in which you jot down or write about these moments of gratitude or appreciation. Potential barrier: the concept of 'Schadenfreude'
Negative Effects	Response: Dissatisfaction, Envy *Response example:* "I don't have the energy or time to do something that elaborate for my kids." *Possible reframes:* (1) Practice self-compassion.[37] (2) Increase the sample size of your comparison.[38]	Response: Feeling Scorn *Response example:* "That person probably deserves what happened." *Possible reframe:* Let me try to consider the challenges they face in life right now.

Table 1: Upward and downward comparison effects and brief intervention examples.

Downward comparisons resulting in scorn are the most difficult to change because the power dynamic of feeling superior tends to increase self-centeredness in the assessor. A greater sense of empathy is required to bridge the gap (Fiske 2010). Such an approach will vary with individual encounters, and this contributes to the complexity of intervention.

Empathy plays a pivotal role in confronting scornful feelings, an awareness that scorn diminishes consideration for how others think and feel (Fiske 2010). In our example above, a more productive approach to addressing feelings of scorn may be the use of cognitive reframing to challenge thoughts of superiority and/or blame-laying. Purposeful and mindful assessment of the realities of another's struggles helps us to move back into a place of empathy. Upon disengagement from scorn, it becomes easier to consider how this kind of stereotyping and laying blame on others not only alienates us from them, but can also be harmful to our own mental health and wellbeing. By recognizing unhealthy thought patterns, paired with empathy for one's self through self-acceptance and self-forgiveness, feelings of scorn can be transcended.

Conclusion

Social interactions during the COVID-19 pandemic have forced everyone into a new virtual landscape with significant increased social-media use. A basic drive of human beings is to connect, to affirm our humanity and confirm our place in the world. Unfortunately, not all social-media interactions result in a sense of connection, and for some, this failure has reinforced disconnection and a sense of isolation or worse, contributed to negative self-perception. Of course, this novel communication environment caused by COVID has ignited imaginations, driven ingenuity with positive collaborations and shared strategies. There is also a community of people for whom this increased social-media interaction has resulted in a reduced sense of community and wellbeing, whose lowered self-esteem has only been further reduced, resulting in a greater sense of isolation and comparisons that leave them less hopeful. Social Comparison Theory provides a helpful structure to understand this bidirectional outcome. If an individual is able to gain insight on their style of social-media consumption and their strategy of social comparison within an

interaction, there is an opportunity to redefine the experience, which will protect them from damage to their value placement and self-esteem.

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Conflicts of Interest

The authors declare that they have no conflict of interest.

Contributions

SS, SW, JKM, RP, and LC drafted the manuscript; and all authors contributed substantially to its revision.

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