THESIS

RESPONDING TO SUICIDAL IDEATIONS IN ONLINE PEER SUPPORT GROUPS

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ABSTRACT

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This study examines if moderated online peer groups for those suffering from suicidal ideations differ than non-moderated online peer groups in three ways: the frequency of pro-suicide response, the frequency of non-civil and impolite response, and the frequency of therapeutic response strategies. The study begins with a literature review that addresses how the Internet may affect peer support to those who suffer from suicidal ideations as well as the difference between therapeutic responses and non-therapeutic responses. The online disinhibition effect suggests Internet communication can succumb to pro-suicide discussion as well as non-civil and impolite discussion easier than face-to-face communication due to the unique qualities of Internet communication. However, a substantial amount of evidence also suggests the Internet could be an ideal medium to provide support for suicidal individuals if done correctly. The method for the study was devised by extracting content categories from a study done by Gilat, Tobin & Shahar (2012) that examined the difference between non-therapeutic responses and therapeutic responses via phone conversations with trained volunteers and lay-persons. Similarly, the study extracted content categories from a study by Rowe (2014) that examined the differences between the level of anonymity in websites with the frequency of non-civil and impolite discussion. A content analysis was conducted on one moderated website containing online peer support groups for those suffering from suicidal ideations as well as one non-moderated website containing online peer support groups for those suffering from suicidal ideations.

The study found pro-suicide responses to be substantially more frequent on the non-moderated peer groups than on the moderated peer groups. Additionally, the study found non-civil and impolite responses to be more frequent on the non-moderated peer groups than on the moderated peer groups.

Both pro-suicide responses as well as non-civil and impolite responses were significantly greater in response type diversity in the non-moderated peer groups than on the moderated peer groups. Lastly, the moderated peer groups contained almost twice as many therapeutic responses than the non-moderated peer groups suggesting theoretical support for Bandura's social cognitive theory.

The study suggests the type of support received online will heavily depend on the nature of the website. In addition to peers, having trained volunteers respond to suicidal ideations may increase the number of therapeutic response strategies. Additionally, having designated group moderators could be a better way to counter the disinhibition effect than relying on self-policing.

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INTRODUCTION

This study assess the response strategies used by peers in online support groups for those suffering from suicidal ideations by looking at how the presence of trained volunteers influence the nature of messages sent by peers. Using previous research in response strategies, I developed a content analysis on the number of therapeutic response strategies used by peers in a peer support group with trained volunteers versus the number of therapeutic response strategies used by peers in a peer support group without trained volunteers.

Additionally, this study looked at how moderated online peer support groups influence pro-suicide discussion. Using a content analysis, I was able to determine the amount of pro-suicide discussion in a moderated online peer support group versus the amount of pro-suicide discussion in a non-moderated online peer support group for individuals suffering from suicidal ideations.

Many researchers agree peer support can influence peer health behavior. However, it is unclear how the level of influence peer support has on peers suffering from suicidal ideations. Regardless, most research points to how peer support can play a vital role in suicide prevention. According to the direct effect model of communication, peer relationships may reduce feelings of isolation, which in turn can reduce conditions associated with isolation such as alienation, diminished feelings of control as well as diminished self-esteem (Dennis, 2003). Additionally, peer support can enhance social integration as well as the level of participation an individual seeks in a relationship. This increase of social integration has been linked to a decrease in depression (Dennis, 2003). Therefore, participating in peer relationships may subject an individual suffering from suicidal ideations to social controls and pressures that may induce normative behaviors as well as reduce extreme reactions (Dennis, 2003).

The buffering effect model posits that peer support can buffer the influence of stress on health by redefining and reducing the potential for harm posed by a stressor (Dennis, 2003). Additionally,

online users can suggest additional coping strategies, offer discussions on coping strategies, emphasize norms through social comparison, and discourage maladaptive responses (Cohen & Syme, 1985; Gottlieb, 1985; Lakey & Cohen, 2000; Thoits, 1995).

According to this model, if an individual suffering from suicidal ideations is pushed from a stressor, increasing the risk of suicide, a peer would be able to act as a buffer between the suicidal individual and the stressor, reducing the risk of a suicide attempt. The peer support may increase the number of coping strategies for the individual suffering from suicidal ideations as well as help the individual discuss his or her current coping strategies (Dennis, 2003).

The buffering effect model proposes that peer support can protect individuals from harmful or dangerous influences emerging from stressful events, or peer support can buffer individual responses to potentially stressful events (Cohen, Gottlieb & Underwood, 2000). Many communication researchers believe in a mediating effect model that suggests peer support may act as an intervening variable that can indirectly influence health behaviors, such as suicidal ideations, through emotions, cognitions, and behaviors (Stewart & Tilden, 1995). Therefore, according to this model, peer support can influence how an individual with suicidal ideations behaves through offering emotional support, self-disclosure on behavior, advising, and numerous additional strategies.

Although online peer support groups lack the face-to-face cues many of the above models consider, the social processing theory posits that online users will make impressions of others through the available cues in an online setting (Walther, 1992). Additionally, the hyperpersonal model of computer mediated communication (CMC) suggests we can build more effective relationships online then we can face-to-face (Walther, Liang, DeAndrea, Tong, Carr, Spottswood & Amichai-Hamburger, 2011). Therefore, according to the hyperpersonal model of CMC, people suffering from suicidal ideations are able to make meaningful connections and receive support through online peer support groups.

Additionally, research shows when the severity of suicidal ideation is high, the degree of receiving and providing social support decreases significantly, and strong feelings of dissatisfaction with social support emerge (Endo, Tachikawa, Fukuoka, Aiba, Nemoto, Shiratori, Matsui, Doi & Asada, 2013). Similarly, research findings by Ikeda (2008) suggest a high level of social support decreases the risk of suicide. If the hyperpersonal model of CMC holds true, relationships built online can potentially increase perceived social support in individuals suffering from suicidal ideations, thus reducing the suicidal ideations.

Although online peer support groups may increase peer support, clear differences between online communication and face-to-face communication concern professionals. Traditionally, a peer support group such as Alcoholics Anonymous (AA) would meet in one place at one time and be centered on a clear "therapeutic" approach to support (Lebow, 1998). These peer support sessions have ritualized traditions that are part of the culture of the group, and experienced members can personally connect with newer members to help them become part of the tradition and culture (Lebow, 1998). Unfortunately the same social pressures do not exist in an online peer support group, which leads to an entirely new set of traditions and cultures that can be difficult to force users to partake in, especially when remaining anonymous.

The toxic disinhibition effect, is defined by Suler, (2005) as people being rude, critical, angry, hateful, and threating in online peer groups where in face-to-face communication, may not occur. The toxic disinhibition effect is a growing concern to mental health professionals (Suler, 2005). This theory can help explain why an individual in an online peer support group might receive information or communication that is actually harmful to the recovery process, such as a pro-suicide discussion.

Prasad and Owens (2001) conducted an Internet search for the term "how to commit suicide" and found no content providing instructions or methods as to how to commit suicide. Four years later, researchers searched the Internet for the same term and found numerous results including "A Practice

Guide to Suicide" from satanservice.org (Recupero, Harms & Noble, 2008). Recently, a study in Japan found more than 600,000 Japanese sites providing suicide methods and similar studies, demonstrate a rapidly increasing trend in pro-suicide content emerging on the Internet (Hagihara, 2011). For example, a study by Biddle, Donovan, Hawton, Kapur & Gunnell (2008) suggested almost 30 percent of Internet search results for suicide-related terms consisted of websites with content primarily focused on suicide methods, suicide encouragement, or non-rejection of suicidal thoughts (Westerlund, 2012).

The unfortunate trend in pro-suicide Internet content creates concern as to whether online peer support groups can be a safe way to gain peer support without trained volunteers and moderators present. Without moderators, individuals suffering from suicidal ideations could become the target of potentially harmful communication, including links to pro-suicide websites as well as pro-suicide comments such as suicide justification, methods, encouragement, etc. However, there is a lack of empirical research suggesting pro-suicide discussion is helped by moderated peer support groups. This research will address whether or not moderated peer support groups hinder pro-suicide response strategies.

Purpose and Rationale

The goal of this study is to provide insight into the response strategies used by peers in online peer support groups for individuals suffering from suicidal ideations. In this study, online peer support groups fall into two different categories, those that are moderated by trained volunteers and those that are non-moderated. Research in response strategies used by lay individuals and trained volunteers are abundant. However, there is a significant lack of research in how a trained volunteer's response to a suicidal ideation may or may not influence future response strategies by lay individuals. In this study, support groups moderated by trained volunteers include support messages by volunteers trained by professionals as well as support messages by lay people. Lay people refer to any person responding to a

suicidal ideation in an online support group that is not trained by a professional therapist. All individuals in non-moderated support groups are considered lay individuals.

Previous research suggests volunteers trained in suicide support and lay individuals respond to user's online messages containing suicidal ideations through emotional support (Gilat, Tobin & Shahar, 2012). However, trained volunteers frequently use additional therapeutic strategies including empowerment, interpretations, and cognitive change inducement (Gilat et al., 2012). This finding points to how some strategies, particularly those that seek to induce change in suicidal ideations, are less intuitive and are learned through training while gaining a professional point of view on suicidal ideations (Gilat et al., 2012).

Current research does not delve into whether or not the social cognitive theory plays a role in learning therapeutic responses. It could be possible that therapeutic responses can be learned in moderated peer support groups through lay individuals observing trained volunteers respond to suicidal ideations with therapeutic response strategies. This study will measure the frequency of therapeutic and non-therapeutic response strategies used in moderated and non-moderated peer support forums. If the frequency of therapeutic response strategies by lay individuals is higher in peer support forums with trained volunteers, it is possible the social cognitive theory may be credited.

Considering the growing concern in pro-suicide content emerging on the Internet, as well as the lack of empirical evidence supporting the idea that these pro-suicide discussions exist solely in non-moderated peer forums, this study will address whether the amount of pro-suicide response strategies by peers are influenced by whether or not the online peer support group has a trained moderator.

Research Contribution

Understanding how individuals in moderated and non-moderated online peer groups respond to user suicidal ideations will allow health and communication professionals to examine support approaches aimed at reducing suicidal ideations as well as promote proper ways in coping with suicidal

ideations. Additionally, professionals may begin to understand how to improve perceived support for individuals suffering from suicidal ideations. This analysis is crucial for understanding how non-moderated and moderated online peer group users can best help people suffering from suicidal ideations and possibly counter pro-suicide comments stemming from the toxic disinhibition effect.

LITERATURE REVIEW

Suicidal Ideations

Gilat, Tobin & Shahar (2011) broke suicidal ideations into three primary categories: mental pain, cognitive attribution, and level of suicidal risk. Mental pain accounts for expressing feelings of loss in control, acute loneliness, emptiness, narcissistic wounds, irreversibility, loss of energy and emotional flooding.

Loss of control can be defined as expressions of uncontrollability, unpredictability, helplessness, and feelings of ambiguity (Gilat et al., 2011). For example, "I feel like the world is spinning too fast, and I am unable to move." Acute loneliness is defined by Gilat et al., 2011) as expressing hurt-related feelings such as rejection and abandonment. For example, "I am all alone; all my friends have left me." Emptiness is defined as expressions of the absence of personal meaning (Gilat et al., 2011). For example, "I cannot stand my emptiness, nothing means anything to me." Narcissistic wounds are defined as self-directed feelings of hatred or devaluation (Gilat et al., 2011). For example, "I hate the person am I." Irreversibility is defined as mental pain that cannot be reversed (Gilat et al., 2011). For example, "I will never feel happy." Loss of energy is defined as the reduction of internal forces (Gilat et al., 2011). For example, "I have nothing left, no power to continue." Lastly, emotional flooding is defined as expressing feelings of being overwhelmed by emptions (Gilat et al., 2011). For example, "I am sick of the waves of intense negative feelings and emotions."

Cognitive attribution is defined as the frustration of needs associated within personal relationships (Gilat et al., 2011). For example, "my best friend is so mean to me that I don't even want to live anymore."

Levels of suicidal risk are defined as expressing suicidal thoughts and wishes, suicidal intentions, and/or suicidal act or plan (Gilat et al., 2011). For example, "I want to die," "I am going to cut myself," "I have just taken an overdose of pills," "I am going to shot myself in the head tonight."

How peers interact with suicidal ideations online is core to this research in numerous ways. This research measures three things: the frequency of pro-suicide response, the frequency of non-civil response, and the frequency of therapeutic response and non-therapeutic response.

Pro-Suicide Content, Incivility, and Impoliteness

Various case studies have suggested a relationship between pro-suicide Internet websites and the incidence of suicide. For example, researchers compared Internet search terms such as hydrogen sulfide (poisonous gas found in natural gas fuel), hydrogen sulfide suicide, and suicide hydrogen sulfide and concluded a significant relationship to the incidence of suicide among people in their 20s and 30s (Hagihara et al., 2014). Additionally, the terms suicide and suicide by jumping were significantly related to the incidence of suicide by 30 to 39-year-olds (Hagihara et al., 2014). Another study by Baume et al. (1997) found that in three cases where suicidal individuals left messages on a pro-suicide website explaining their decision to take their own lives, two of the three completed suicides after the suicidal individuals received detailed instructions on suicide methods as well as encouragement to carry out their plans. Another case study found correlations between the frequency of suicide by plastic bag asphyxiation (recommended on various pro-suicide websites), and Internet access (Pirkis, Neal, Dare, Blood & Studdert, 2009). Lastly, a number of case studies have linked particular suicidal acts to those individuals previously contacting specific websites (Becker, Mayer, Nagenborg, El-Faddagh & Schmidt, 2004). Generally, the link between the suicide attempt and the pro-suicide website was found at the specific suicide scene through physical documents that could be traced to specific websites, or, in the case of failed suicide attempts, elicited from the attempter (Pirkis et al., 2009).

The recent phenomenon known as "Internet group suicide" is explained as individuals who join Internet groups, chats, or discussion forms to commit to a suicide pact. Once a pact is made, the individuals meet in a predetermined location where they usually follow through with the suicide (Silva, 2010). The majority of individuals participating in Internet group suicide are Japanese between the ages

of 20 and 30. Although unclear, some researchers contribute the popularity of Internet group suicide in

Japan to the cultural importance of honor found in Japanese society mixed with the popularity of

technology. Statistics show a steady increase in Internet group suicide since it has been officially

recognized as a distinctive suicide category by Japanese police in 2003 (Con, 2006). According to Con

(2006) there was one case of Internet group suicide in 2002, 20 cases in 2003, 22 cases in 2004, and 26

cases in 2005. However, most researchers believe the number is actually considerably higher depending

on the reporting practices of the Japanese police (Con, 2006).

The first widely reported case of Internet group suicide occurred in February 2003, when a man

and two women were found dead of carbon monoxide poisoning in their apartment caused by the

burning of numerous charcoal briquettes in a stove oven with windows sealed shut (Con, 2006). The

bodies were found by a teenage girl who initially accepted the suicide pact during an online chat. The

girl decided to not participate and later found the three individuals dead (Horiguchi & Akamatsu, 2005).

Typically an individual who seeks an Internet group suicide is not willing to commit suicide on

their own; therefore they need others. Suicidal individuals also express their desire to be needed by

others when engaging in online suicidal discussions. The feeling of being needed by another human

being provides a sense of meaning and purpose to individuals who perceive themselves as worthless

(Silva, 2010). Thus, Internet group suicides provide an opportunity for an individual to provide meaning

to their life by being "needed" in order for the other suicidal individuals in the pact to follow through

with the planned suicide. In an Internet suicide group, each individual may be experiencing these needs

reciprocally with the other members (Silva, 2010).

According to Alao, Pohl & Alao, (2006), there are over 100,000 websites on the Internet that

describe methods of committing suicide. Additionally, some of these sites forbid entrance to users who

attempt to dissuade suicidal individuals from taking their own lives (Alao et al., 2006). Some of these

websites offer a combination of graphic color photographs of suicides, copies of suicide notes, and electronic bulletin boxes for posting personal suicide notes (Alao et al., 2006).

Online suicidal methods usually detail and describe unusual but highly lethal methods generally unknown to the mass majority of people. Prior to Internet suicide websites, people had to heavily research suicidal methods through medical textbooks and reference guides in order to properly attempt suicide (Recupero et al., 2008). The frequency of suicide by unusual methods has grown with the frequency of Internet use in popular culture (Recupero et al., 2008).

In May 1999, an individual committed suicide using a recipe for neat nicotine, which he obtained online. Other obscure suicide methods available from pro-suicide internet websites include ingesting the roots of highly poisonous plants, injecting lighter fuel into arms, helium asphyxiation, consumption of castor oil beans, excessive quantities of water, burning charcoal in a shichirin stove resulting in carbon monoxide poisoning, and many others (Recupero et al., 2008).

A study by Gunnell, Bennewith, Kapur, Simkin, Cooper & Hawton, (2012) found there was evidence of a direct Internet contribution in nine of 593 suicides in 2005, seven of which used the Internet to research methods and five used the Internet to research unusual and highly-lethal methods. This data suggests access to suicidal methods and pro-suicide websites contribute to a small proportion of suicides (Gunnell et al., 2012). Additionally, most researchers agree that these findings are a significant underestimate of the number of people that use the Internet to research suicide methods (Gunnel et al., 2012).

Research supporting the online disinhibition effect shows non-anonymous commenters were nearly three times more likely to remain civil in their comments as those who were anonymous (Rowe, 2014). Considering this study analyzes responses by anonymous online peers, it's beneficial to code for these comments as well. The study utilizes a pre-existing coding scheme developed by Papacharissi (2004) to guide the frequency of incivility as well as impoliteness. As most studies note, civility covers a

specific type of communication and politeness. Comments deemed non-civil did not entirely reflect the status of the damaging comments made by online peers responding to suicidal ideations. Therefore, I decided to code for both incivility and impoliteness, which covers a much broader and accurate depiction of the harmful response strategies used by peers online.

Following Papacharissi's (2004) coding scheme, non-civil comments contain at least one of the following: threats to individual's rights, threats to democracy, and stereotyping. However, following a preliminary analysis of the incivility occurring in this study, stereotyping was the only applicable and reoccurring phenomenon. Therefore, I will only be coding for stereotyping and omitting the coding for threats to individual's rights as well as threats to democracy.

Stereotyping is the only incivility coded for this study and should be noted as such rather than impoliteness. Stereotyping asserts a widely held but fixed and oversimplified image or idea of a particular type of person or thing (Rowe, 2014). Additionally, stereotyping could involve making generalized assumptions regarding the thoughts and behaviors of particular groups or individuals (Rowe, 2014). For example, suggesting all teenage girls complain about suicidal ideations but never act on those ideations, is a common stereotype found when discussing suicidal ideations online.

Once again following Papacharissi's (2004) coding scheme, impolite comments contain at least one of the following: name-calling, aspersions, lying, vulgarity, pejorative speak, hyperbole, non-cooperation, and sarcasm. However, following a preliminary analysis of the impolite comments occurring in this study, name-calling, aspersion, vulgarity, hyperbole, and sarcasm were the only applicable and reoccurring phenomenon.

According to Rowe (2014), name-calling refers to words used as clearly derogatory towards the person it is intended for. For example, "You are very stupid."

Aspersions are comments containing an attack on the reputation or integrity of someone or something (Rowe, 2014). Comments containing aspersions may include disparaging or belittling

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comments aimed at the person suffering from suicidal ideations. For example, a comment reading: "Are you serious? This is the dumbest thing I have ever heard," would be considered aspersion because it is an attack on the suicidal ideation as well as the person expressing the ideation. The comment's tone also implies it is not a genuine feeling to convey, therefore belittling the user expressing the suicidal ideation.

Vulgarity refers to all comments contacting vulgar language (e.g. shit, fuck, sexual innuendos, etc.). Additionally, comments containing vulgar abbreviations such as WTF (what the fuck) will be coded as vulgar. For example, "Are you fucking crazy," would be coded as vulgar and therefore impolite.

According to Rowe (2014), hyperbole comments contain massive overstatements and can be considered a phrase (i.e. hardly a second goes by without a teenage complaining about suicide on this forum), or the overuse of descriptive words used specifically to emphasize a point (i.e. guns don't make people commit suicide, it's the ticking time bomb inside these kids heads who get relentlessly picked on by students and all the teachers ignore him or her until he takes his fathers 9 mm, hides in his room, stares up at his ceiling fan and puts a hole in his skull. If teachers cared it never would have happened).

Sarcasm is used to mock the original phenomenon using irony. For example, "I bet the world is literally going to explode if your mom doesn't get you the Xbox you asked for." Sarcasm is considered impolite because mocking the suicidal ideation can cause the suicidal ideation to appear as invalid or less than urgent.

Responding to suicidal ideations with a pro-suicide, incivility, or impoliteness may seem foreign, however research clearly shows the incidence of this phenomenon. Additionally, most research demonstrates a variety of reasons for responding to suicidal ideations with a pro-suicide or non-civil response response. Suler's (2004) theory, coined the online disinhibition effect, may explain why peers frequently use pro-suicide and non-civil responses when addressing suicidal ideations in online forums.

Online Disinhibition Effect

The online disinhibition effect can fall into two polarized categories: benign disinhibition or toxic disinhibition. However, there is a considerable amount of online communication that falls somewhere between the two poles (Longden, 2014). Benign disinhibition is explained as online users communicating suppressed emotions, fears, and wishes through unusual acts of kindness they normally do not display in the "real world," The toxic disinhibition effect is explained as people acting more rude, critical, angry, hateful, and/or threatening than they would in the "real" world (Suler, 2005).

Generally speaking, the norms of group dynamics will interplay with individual psychological differences to make clear distinctions between benign and toxic disinhibition (Suler, 2004). Research suggests individuals will take fewer risks in inherently risky situations and more risks in less risky environments (Suler, 2004). Therefore, the addition of an Internet peer group moderator could have large consequences on the degree of disinhibition. If peers view a moderated peer support group as a more risky environment to unleash their toxic disinhibition, they may be less likely to display such behaviors.

A combination of online factors including dissociative anonymity, invisibility, asynchronicity, solipsistic introjection, dissociative imagination, attenuated status and authority, as well as individual differences can cause an online disinhibition effect (Suler, 2005).

Dissociative anonymity is the hiddenness of an online user's identity. This "nonidentifiability" requires the removal of key identifiers such as a person's name and location (Wallace, 1999). According to Suler (2005), autonomy allows users to separate their online actions from their in-person identity, making them feel less vulnerable and more willing to self-disclose or act out.

The Internet has intensified the debate surrounding the ethical implications for as well as against anonymity. Although many people believe anonymity is necessary to preserve the privacy of information (Brazier, Oskamp, Prins, Schellekens & Winjngaards, 2004), some people believe it

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generates an environment for defamation, hate speech, and juvenile levels of responsibility (Scott & Orlikowski, 2014). Some people fear if Internet users are not held accountable for their activities in a meaningful way, "deindividuation" can take place (Scott & Orlikowski, 2014). Essentially, people are less self-aware, are involved in less self-evaluation, and are not as concerned about social comparison and evaluation. People may experience dissociation of their online pseudonyms from their offline selves. In effect, this leads people to feel less accountable for inappropriate online social behavior (Scott & Orlikowski, 2014).

Invisibility can be explained as the inability to physically see an online user (Suler, 2005). Invisibility causes people to refrain from worry about how they look or sound when they type a message, or about how others look or sound when they send feedback (Suler, 2005). This effect of invisibility is supported by Goh et al., (2011). Their research discovered a behavioral mediation increase and an anti-social and deceitful behavior reduction when videolink technology is used in online communication.

Invisibility can produce a particularly strong online disinhibiting effect. For example, seeing a person shake their head in disapproval or sigh in boredom may inhibit what people are willing to express (Suler, 2005). Without these social cues, people may be disinhibited from sharing hateful language such as pro-suicide discussion.

Asynchronicity is the inability to interact with another person at the same moment in time. This allows users to change and reflect on what they are about to communicate before they actually initiate conversation or respond to communication (Valkenburg & Peter, 2011).

The lapse in time caused by asynchronicity allows an online user to feel safe when self-disclosing due to the fact that their thoughts can be left behind quickly (Suler, 2005). Research in adolescents' online communication suggest the asynchronous nature of online communication is beneficial for adolescents who are shy and self-conscious, those who feel physically unattractive, and adolescents who

are easily embarrassed, as well as those who are often timid and quiet in physical social gatherings (Valkeburg & Peter, 2011).

Although some people may use asynchronicity to carefully craft information and communication, others use asynchronicity to tailor information in way that is particularly painful and harmful to a target victim (Valkenburg & Peter, 2011). One online psychotherapist describes it, a person may be participating in an "emotional hit and run" (Suler, 2005).

Solipsistic introjection is conceptualized as cues that alter self-boundaries by an online user's mind merging with the mind of another online user (Suler, 2005). Solipsistic introjection often occurs unconsciously when online users assign a voice and image to the person they are communicating with (Suler, 2005). This online companionship becomes part of an online user's world and allows them to behave in ways they would not normally in the real world.

The online character is not only shaped by how an online user presents himself or herself through text, but also by one's transference expectations, wishes, and needs (Suler, 2005). The introjected character can become more elaborate and "real." If this happens, a person may start to experience the online communication as actually taking place inside one's mind (Suler, 2005). The online communication taking place inside one's mind can create fantasy roles, giving way to a high amount of disinhibition. The conversation may stop feeling as two-way communication and may be experienced as talking to or with oneself (Suler, 2005).

Dissociative Imagination is an online user's imaginary characters (avatars) existing in a space that is separate from the demands and responsibilities of the real world. This may cause users to split or dissociate online fiction from offline fact. The split-off self may evolve into a complex structure separate from the offline self, causing a disinhibition effect (Suler, 2005).

According to Finch (2002), some online users see their online life as a game that includes rules and norms that do not necessarily apply to the real world they live in. Once online communication is

finished and they return to their real world routines, they leave behind the game world along with the persona that goes along with it as well as any responsibility for what does or does not happen in their online "game world" (Suler, 2005).

According to this notion, peers responding to suicidal ideations via online peer groups may behave differently from their "real self" because their "online self" has morphed into an entirely different imagination reality. This imagination reality could take the form of peer support through various response strategies. However, this imagination reality could lead to a toxic effect promoting or encouraging suicide related behaviors to those communicating suicidal ideations in a peer support group.

Attenuated status and authority is conceptualized as a lack of status cues (dress, body language, embellishments of setting, etc.) in online communication that results in a reduced impact of authority figures, which increases the willingness of an online user to speak their mind (Suler, 2005).

According to Suler (2005), fear of disapproval or punishment causes people to become reluctant in saying what they truly believe as they stand physically before an authority figure. However, in online communication, authority is minimized by feelings of "peer relationships" which allows people to speak their mind freely without fear of disapproval or punishment from authority figures (Suler, 2005). According to Suler (2005), Individual differences are conceptualized as how an individual's personality (i.e. compulsive, histrionic, schizotypal) interacts with another online user. Some people show a small difference in their personalities offline compared to online and some show a large difference.

Although the toxic disinhibition effect accounts for an unfortunate amount of response during online communication, research suggests it doesn't outnumber social support strategies when responding to suicidal ideations, part of this could be contributed to the benign disinhibition effect. Therefore, it could be suggested the presence of the online disinhibition effect is contributing to the frequency of social support given by peers in online forums. For this study, it is essential to categorize

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social support strategies based off specific responding techniques driven by the context of the suicidal

ideations as well as the individual's frame of mind.

Social Support

According to Caplan (1974), social support can be explained as an interaction including one or

more of the following response strategies: emotional, approval, information-sharing, and instrumental

help. In the context of suicidal ideations, numerous studies have shown those with few social

interactions, feelings of rejection, and minimal satisfaction with current social support systems, are at a

greater risk for suicidal behavior (Gilat et al., 2011). Therefore, response strategies can serve as a way

for distressed individuals to cope with suicidal ideations.

More recently, research has questioned the influence of social support in online settings.

However, numerous studies direct scholars in believing online social support can just as beneficial, if not

more beneficial, to individuals suffering from suicidal ideations. One theory driving such studies is

Walther's hyperpersonal model of computer-mediated-communication.

The hyperpersonal model of computer-mediated-communication (CMC) suggests people who

use CMC can actually build more intimate relationships than people who engage in face-to-face

communication by taking advantage of certain characteristics found in online communication (Walther,

1996). This model has been given support in numerous settings including online peer support groups

(Walther et al., 2011). Empirical studies have shown how CMC leads to more extreme impressions

compared to face-to-face communication (Walther et al., 2011). Additionally, research has shown that

CMC leads to an overall increase in positive relations over time compared to face-to-face

communication (Walther, 1997). Therefore, it can be suggested that peer support groups for individuals

suffering from suicidal ideations may help create lasting support for those in need. The hyperpersonal

model contains four components including selective self-presentation, idealization, channel

management, and feedback which relate to how CMC increases meaningful relationships over time

(Walther et al., 2011).

Numerous mechanisms in online communication lend themselves to facilitate self-presentation

in an online peer support group. People using CMC in online peer support groups can selectively self-

present attitudes or aspects of their self in a controlled and socially desirable way (Walther, 2007).

Essentially, online peer support groups will inhibit message noise coming from social cues present in

face-to-face communication. For example, a physical twitch or uncomfortable facial expression will have

no impact on how the message is sent or how the message is received.

As message receivers, people using CMC can idealize the message sender from the

circumstances or message elements that suggest minimal similarity or desirability (Walther, 2011).

Idealization refers the ability for people online to see exactly what they want to see in a message to

formulate opinions on the message sender, rather than see the true reality of the message sender.

Essentially, an individual responding to suicidal ideations will idealize the message sender based solely

on the messages they send. Messages that differ in levels of similarity as well as desirability will have the

largest impact on how an individual will idealize a message sender. For example, the message "I am

going to shoot myself in the head at 8:21pm," delivers a high level of uniqueness to it due to its

specifications. Additionally, it delivers highly undesirable message traits to it (i.e. uncomfortability, fear,

immediacy, etc.). A message receiver will idealize the message sender, as someone who needs

immediate support, based on these message traits.

Channel management refers to the ability and levels of editing, desecration, and convenience

allowed in particular online settings (Walther, 2011). Managing channels of communication allow users

to pick online platforms that resonate best with their motivations and desires. The ability to edit a

message before sending, the amount of time an individual can spend building and manipulating a

message prior to sending, the luxury of being physically isolated from the message receiver(s), and the

reallocation of cognitive resources from environmental scanning and nonverbal management used in face-to-face communication towards message composition are all important characteristics users consider when selecting online channels (Walther, 2007).

Feedback has been conceptualized by Walther et al., (2011) as reciprocal interaction with others that reinforces one's online performance by bringing together the identity-transforming potentials of the other theoretical components. Essentially, the hyperpersonal model of CMC posits a feedback loop which occurs when the message sender receives feedback on selective self-presentations. Identity presentations as well as the transformation of identity online are prompted by the feedback loops allowing for the reinforced online performance (Walther, 1996). Walther et al., (2011) found empirical evidence to support the notion that feedback via online communication increases the effects of self-presentation by allowing for an individual's self-perception to fall in line with their identity performance. According to the evidence, an individual in an online peer support group suffering from suicidal ideations can shift their identity to fit their online performance (i.e. the suicidal individual) partly by using peer feedback as a way to reinforce the performance. Additionally, an individual in an online peer support group offering support can shift their identity to fit their online performance (e.g. the advice giver) partly by using peer feedback from support receivers as well as fellow support givers to reinforce the performance. This identity shift may be a valuable component in stigmatized online peer support groups due to the fact that individuals enjoy the comfort of self-presentation as well as enjoy the encouragement to continue to "vent" or "share" suicidal ideations.

Following the direction of the hyperpersonal model of CMC, this study assumes online communication is an effective form of social support in reducing suicidal ideations. However, rather than group all social support into a single category, social support will be divided into two primary categories: therapeutic responses and non-therapeutic responses. Additionally, these two primary

categories will be broken down into various sub-categories designed to give specific detail as to what exact type of communication occurred in each support strategy.

Research by Gilat et al., (2011) analyzed the variety of response strategies to suicidal ideations employed by trained volunteers and found eight strategies. To identify the variety of support responses, Gilat trained psychologists to use a "word systems" method, which measures the frequency of words with a common linguistic denominator (Gilat et al., 2011). Essentially, the word systems method can be used as a hypothetical snapshot which will capture the essence of the discourse/text. The list of response strategies include: emotional support, offering group support, empowerment, interpretation, cognitive change inducement, persuasion, advising, and referring (Gilat et al., 2011).

Another study by Gilat et al., (2012) analyzed the different responses used by trained volunteers compared to lay individuals. This study found both trained volunteers as well as lay individuals primarily used the emotional support response strategy (Gilat et al., 2012). However, the use of empowerment, interpretation, and cognitive change inducement was primarily used by trained volunteers rather than lay individuals (Gilat et al., 2012). These findings suggest cognitive-oriented strategies (i.e. empowerment, interpretation, cognitive change inducement) seeking to promote change in the individual with suicidal ideations are not as intuitive as emotional strategies and are most likely acquired by gaining a professional perspective of response strategies during the training process (Gilat et al., 2012). Gilat et al., (2012) defines therapeutic support strategies dichotomously by the presence of one or more of the following strategies: empowerment, interpretation, and/or cognitive change inducement. Each of the three therapeutic strategies attempt to direct an internal change in the cognitive outlook of the individual with suicidal ideations and to promote mental growth (Gilat et al., 2012).

Additionally, Gilat and colleagues added self-disclosure as a response strategy after measuring the differences between trained volunteers and lay individuals in response strategies used. Although

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self-disclosure was rarely used with trained volunteers, it was frequent among lay individuals. Therefore, the following is a list of non-therapeutic response strategies used: emotional support, self-disclosure, group support, persuasion, advising, and referring (Gilat et al., 2012).

Non-therapeutic Response Strategies

As explained by Gilat (2012), a non-therapeutic response strategy can be defined dichotomously by determining whether or not the response includes at least one of the following strategies: emotional support, self-disclosure, group support, persuasion, advising, or/and referring.

Emotional response strategies have been defined numerous ways. However, most emotional support definitions include key concepts including care, concern, love, and interest during times of stress (Cutrona & Russell, 1990). Additionally, emotional support can include the helping of distressed individuals by listening, empathizing, legitimizing concerns, and exploring feelings (Burleson, 1984). Gilat et al., (2011) address emotional support as the message responder creating a personal bond with the individual suffering from suicidal ideations in numerous capacities such as providing empathy, greetings, and prayers, as well as the use of visual images such as icons of hearts, smiling faces, etc. Essentially, emotional support addresses an individual's innermost self and attempts to provide comfort through numerous communication tactics in hopes to make an individual feel better. Due to the breadth of response strategies that fit into the emotional support response category, it is one of the more commonly used response tactics by both trained volunteers and lay individuals (Gilat et al., 2011).

Offering group support is an extension of emotional support that deals exclusively with support the group provides as a whole. Essentially, instead of one peer giving emotional support to an individual suffering from suicidal ideations, it includes one peer (trained volunteer or lay) speaking on behalf of the group to provide emotional support. Gilat et al., (2011) define offering group support as an invitation to join the group conversation and receive emotional support. For example, "we are here for you," or "you will find many friends in this group."

Self-disclosure involves a response strategy that displays the responder's own experiences (Gilat, et al., 2011). Although self-disclosure is not frequently used by professionals or trained volunteers, it is a fairly frequent response strategy used by lay individuals (Gilat, et al., 2011). The idea behind this response strategy is to provide an individual suffering from suicidal ideations with a unique perspective of the responder's similar experience. Self-disclosure is particularly useful when an individual is learning ways to deal or cope with a problem, such as a suicidal ideation, or a particular event that is causing suicidal ideations (Gilat, et al., 2011).

Persuasion, simply put, is a response strategy that presents arguments against suicide (Gilat et al, 2012). For example, "suicide is an irreversible decision" (Gilat et al., 2011). Additionally, this response strategy can present general beliefs about the value of life; for example, "life is too precious to be wasted" (Gilat et al., 2011).

Advising is a non-therapeutic response strategy that offers the suicidal individual practical ways to cope with their ideations (Gilat et al., 2011). Essentially, advising can be seen as advice giving by individuals who perceive themselves as knowledgeable, credible, trustworthy, and reliable. Therefore, advising can be as simple as giving one's opinions or perceived expertise in the realm of suicide ideations. However, it is essential these "opinions" and "expertise" pertain to the greater goal, which is to provide support to those suffering from suicidal ideations. For example, "occupy yourself with a new hobby" is advice to alleviate an ideation, whereas "I think you should turn the lights off and on three times" is an opinion, but clearly not one that will alleviate a suicidal ideation.

Lastly, referring is a strategy that requires the responder to recommend the individual suffering from suicidal ideations seek professional help beyond that of the peer support group (Gilat et al., 2011). For example, "professional therapy may be helpful to you" (Gilat et al., 2012).

Therapeutic Response Strategies

Studies by Gilat et al., (2011) distinguished therapeutic response strategies from non-therapeutic response strategies by measuring the frequency of response strategies used by trained volunteers compared to lay people. They found individuals with professional training used a greater breadth of response strategies than lay people. Empowerment, interpretation, and cognitive-change inducement strategies were used primarily by trained volunteers and rarely with lay people. Gilat et al., (2011) determined therapeutic response strategies were strategies requiring cognitive-based responses rather than intuitive response techniques. Empowerment, interpretation, and cognitive-change inducement are response strategies requiring significant cognition. Whereas emotional, self-disclosure, persuasion, offering group support, advising, and referring are frequently used response strategies, they are thought to be more intuitive-based. Essentially, they are responses that can be given by all people and no training is required.

Empowerment can be defined as a process in which an individual gains control over their life as a product resulting from the response strategy (Maunsell, Lauzier, Brunet, Pelletier, Osborne & Campbell, 2014). In the context of suicidal ideations, empowerment is the feeling of being able to manage the challenges of the suicidal ideations as well as having control in one's life while experiencing suicidal ideations. According to Gilat et al., (2011), empowerment aims to change the self-perception of the suicidal individual by increasing their awareness of their internal resources. Research suggests an empowered individual may have an easier time understanding and participating in their mental health care while being able to mobilize resources and take actions to minimize anxiety, increase strategies for dealing with suicidal ideations, and improve one's quality of life (Maunsell et al., 2014).

Interpretation is a response strategy that aims to understand the psychological or social root of the problem that is causing an individual's suicidal ideations (Gilat et al., 2011). Additionally,

interpretation may be used as a strategy to raise the individual's awareness of their maladaptive ways of coping with a stressful situation or suicidal ideation caused by a situation (Gilat et al., 2011).

Cognitive change inducement is a response strategy that attempts to give individuals suffering from suicidal ideations alternative ways of thinking (Gilat, 2011). This response strategy attempts to broaden the perspective of the suicidal individual as well as the stressful situations causing suicidal ideations by offering alternative meanings, reducing threat perception, and/or increasing the importance of positive aspects of stressful situations causing suicidal ideations (Gilat et al., 2011).

If peers are utilizing therapeutic response strategies more frequently in online discussions with trained volunteers, it could be contributed to the social cognitive theory. Considering the research suggests therapeutic response as being a "learned" response, hypothetically speaking, a peer would need to be introduced to therapeutic response strategies before they are able to use them. Watching and reading trained volunteers give therapeutic response strategies as well as the outcomes these therapeutic response strategies receive, could be enough for peers previously untrained in therapeutic response strategies to start modeling the behavior of those trained volunteers, thus increasing the frequency of peers utilizing therapeutic response strategies.

Social Cognitive Theory

The social cognitive theory addresses a core set of determinants, the way in which they work, as well as the optimal ways of transferring knowledge into effective practices, and in this case, effective health practices (Bandura, 2004). In the context of health promotion, the core determinants include knowledge of both the health risks and the benefits of alternative health behaviors, perceived self-efficacy that an individual has regarding a behavior, outcome expectations of the expected costs and benefits for altering health behavior, the goals people set for themselves and the plans and strategies for accomplishing those goals, and the perceived facilitators as well as the social and structural impediments to the behavior changes they seek (Bandura, 2004).

According to Bandura (2004), knowledge of risks and benefits are a precondition to behavior change. For example, if an individual lacks the knowledge of how his or her response will affect another person's health, they do not have a strong reason to change their response strategy.

Once a person has the proper knowledge of the risks and benefits to behavior change, an individual's self-efficacy plays a major role in the social cognitive theory (Bandura, 2004). According to Bandura (2004), unless a person believes they can produce the desired effects by their behavior change, they do not have a strong incentive to change their behavior, especially when faced with difficulties. For example, unless an individual in an online peer group perceives the behavior changing response strategy as having power and influence over another user's suicidal ideations, they most likely will not adopt that response strategy.

If an individual adopts a behavior change, Bandura (2004), suggest they will be affected by the outcomes expectations of the behavior change. Essentially, they expect a certain outcome for their behavior. If the outcome aligns with their positive expectation for the outcome, it increases the chance for long-term behavior change. If the outcome does not align with their positive outcome expectation, it decreases the chance for long-term behavior change. For example, did the behavior change feel physically pleasurable? In the case of response strategies, an individual responding to suicidal ideations may gain a feeling of self-worth or happiness from the response strategy used to influence other individual's suicidal ideations. However, the behavior change could produce potential negative outcomes, which will affect whether or not the behavior will be adopted on a long-term basis. For example, maybe the response strategy that was adopted took significantly more time and planning than previous response strategies used. Additionally, maybe the social approval from peers after the adopted response strategy was communicated was significantly reduced. This outcome would weaken the possibility of the individual adopting the response strategy on a long-term basis. If the response strategy

received significantly more approval than previous response strategies, it could increase the possibility of the individual adopting the response strategy on a long-term basis.

The idea of vicarious reinforcement is a central component to the social cognitive theory. According to Bandura (1971), people observe the behavior of others and the instances in which the behavior is rewarded, disregarded, or punished. These response consequences serve numerous functions. They show people which behaviors are appropriate in which setting, as well as serve as a guide in behavior (Bandura, 1974). Additionally, consequences motivate through anticipated benefits as well as avoiding trouble or punishment (Bandura, 1974). Therefore, the same outcome observed or experienced can become a reward or punishment (Bandura, 1974). For example, in the case of online peer support groups for individuals suffering from suicidal ideations, a peer may model a therapeutic response strategy from a trained moderator if the response strategy by the moderator was celebrated by the peer support group, or elicited a behavior change in the individual communicating suicidal ideations. Through vicarious reinforcement, group participants will deem which response strategies are appropriate in the context of the online peer support group environment.

In sum, individuals can observe online messages and the consequences that followed the message. The social cognitive theory suggests a person will act on observational learning if they retain the behavior, believe they are capable of acting, and are motivated to act.

The social cognitive theory is crucial the hypotheses in this study. If non-moderated peer groups fail to punish pro-suicide messages, it could increase the chances for online users to participate in pro-suicide messages. Additionally, trained volunteers may act as models to lay people in moderated peer support groups, thus increasing the chance for lay people to develop and use therapeutic responses in peer support groups.

The Experience Project

The Experience Project is a website dedicated to sharing one's experiences in non-moderated group forums. The website has more than 24 experience categories and includes millions of shared experiences. After posting an experience in an experience category, it automatically creates a forum for your experience. This forum allows other experience project members to comment and participate in the forum. Additionally, forums may be viewed by non-registered peers but not commented on.

The material on the Experience Project is primarily self-governed; if a registered member reports inappropriate content to a website administrator, it will be reviewed and possibly removed. Therefore, it is important to note that the Experience Project is considered a non-moderated website where lay individuals offer peer support. According to the Experience Project's Terms and Conditions, no peer support regardless of its strategy should be taken as professional support.

A non-moderated peer group, such as the forums on the Experience Project, is conceptualized as an online group containing a number of participants who share a problem and attempt to cope and learn how that problem affects their lives (Gilat et al., 2011). Participants of peer groups set their own rules though non-hierarchical decision-making, shared responsibility, and a holistic approach to the needs of the participants (Schopler et al., 1993). Lay individuals, such as the peers giving and receiving support in Experience Project forums, is conceptualized as individuals participating in peer groups who have minimal or no training in responding to suicidal ideations and are not selected to respond to suicidal ideations by health professionals or health programs (Dennis, 2003).

Although the forums self-govern, there are guidelines on the Experience Project, also known as Community Guidelines. These guidelines are as follows: have fun, maintain privacy, no solicitations, no spam, no children, no professional advice, no sexually lascivious material, be yourself, respect copyright, no hate, no harm, no child harm groups, no animal harm, and self-policing. The Experience Project is clear about its lack of moderation and its inability to examine inappropriate content unless it is brought

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to their attention using a flagging system. Content that breaks one or more of the community guidelines will only be removed if individual peers take action against the material by flagging it. More than one of the above guidelines are subjective (e.g. have fun, no professional advice, be yourself, no harm, etc.). Therefore, which material is self-policed and reported will depend on individual differences. This may hinder inappropriate material such as pro-suicide comments from being flagged and removed by website administration.

Another key aspect to the non-moderated forum approach is its inability to effectively respond to crisis situations. Instead of moderators responding to crisis situations via numerous support strategies, the Experience Project only offers one support strategy, which is referring individuals to crisis hotlines and websites. It is important to note the contact information to numerous crisis support resources is readily available in the Experience Project's "Support Center." The Experience Project specifically states their staff does not have the means or the resources to intervene in a crisis situation.

TeenLine Online

TeenLine Online is a multimedia tool used by California teens trained in suicide prevention to answer calls, texts, emails and messages from teens suffering from suicidal ideations. TeenLine Online is supported by mental health experts who provide supervision and field questions for the trained volunteers. Similar to the Experience Project, TeenLine Online discloses that they are not a substitute for professional counseling but rather a peer-to-peer experience with resources for crisis situations.

Individuals in TeenLine Online forums post discussions to start a thread. The responses to these posts are the responses this study will be analyzing. Although you do not need to be a registered member to view forums, you need to be a registered member to comment inside forums or create your own discussion topic. All forums are monitored by staff to ensure proper support is given as well as inappropriate communication is filtered; administrators can view posts before they go public. Additionally, forums are self-policed by peers reporting inappropriate comments.

Administrators are members assigned the highest level of control over the entire forum and can control all aspects of the forums. This includes setting permissions, banning users, creating user groups or moderators, etc. Administrators may have full moderator capabilities in all forums, depending on the settings put forth by the forum founder. There are no uniform guidelines for posting in the forums because each forum board administrator has their own set of rules. It is up to the board administrators to issue warnings to users that violate forum rules.

Underneath the role of the administrator are forum moderators. Moderators are individuals in charge of looking after the forums on a daily basis. Moderators can edit or delete posts and lock, unlock, move, delete and split topics in the forum they moderate. The moderators are typically present to prevent users from going off-topic or posting inappropriately. Moderators are typically chosen by administrator roles and not randomly assigned. However, the moderator is not typically trained in response strategies.

TeenLine Online trained volunteering teens post responses from the following user names: TL TEEN, TL TEEN2, or TL TEEN3. These usernames are shared by all trained teen volunteers and represent the organization rather than a specific individual. Commonly a post by a TL TEEN, TL TEEN2, or TL TEEN3 will be signed by an actual person. Although this teen is not technically a forum moderator, they are the variable introducing the increased amount of therapeutic response strategies into the forums.

In the context of this study, a trained volunteer is conceptualized as individuals trained in peer support by professionals who help direct the flow of conversation, police forums, and participate in peer support groups to achieve specific goals (reducing suicidal ideations) through the use of support strategies gained through direct experience (Dennis, 2003). It is important to note that in most forums, such as TeenLine Online, an experienced user may work their way into the role of moderator if granted by an administrator. Moderators are conceptualized as peers with extensive experience in forums who have demonstrated their ability to effectively moderate discussion. Whereas trained volunteers serve as

a tool to introducing therapeutic and non-therapeutic response strategies, moderators serve as a tool to direct the flow of conversation and eliminate abusive communication.

In sum, research suggests pro-suicide content, non-civil or impolite response to suicidal ideations, and pro-suicide response is fairly frequent among peers, partly due to the online disinhibition effect. However, forums with moderator's activity reviewing peer's responses to suicidal ideations have a specified role in reducing such content. In the absence of these specified roles, peers are left to self-police the forums for pro-suicide content. Unfortunately, self-policing peers may not understand the importance of actively deleting pro-suicide content as well as non-civil and impolite comments. Therefore, the hypotheses that will guide this study are as follows:

H1: In non-moderated online peer groups, pro-suicide response strategies are more frequently observed than in moderated peer groups.

IV: The frequency in observation of pro-suicide response strategies

DV: Whether or not peer support groups are moderated by trained volunteers and professionals

H2: Participants will respond to suicidal ideations with non-civil and impolite comments more frequently in peer groups without trained volunteers than participants in peer groups without trained volunteers.

IV: The frequency of non-civil responses

DV: Whether or not peer support groups are moderated by trained volunteers and professionals

Additionally, research shows a clear distinction among the frequency of response strategy types between lay individuals and trained volunteers. Volunteers trained by licensed therapists typically use more response strategy types, specifically more therapeutic response strategy types, than lay individuals. However, it is possible the select number of lay individuals using therapeutic response strategies do so by role modeling the trained volunteer's response strategies. The social cognitive theory supports the idea that peers are able to role model behavior from individuals if the outcomes are perceived positive as well as perceived obtainable. The hyperpersonal model of communication suggests computer mediated communication can be particularly helpful in building meaningful relationships.

Research has also shown peers without perceptions of strong relationships are at greater risk for suicidal ideations. Therefore, if peers can use online communication to build relationships, it could decrease suicidal ideations. The decrease in suicidal ideations is perceived as a positive outcome and the ability to participate in forums increases the perceptions of being able to obtain positive outcomes. With this information it is likely peers model trained volunteer's response strategies to reach positive outcomes. This accounts for the third hypothesis.

H3: Participants will respond to suicidal ideations with therapeutic responses more frequently in peer groups with trained volunteers than participants in peer groups without trained volunteers.

IV: The frequency of therapeutic responses

DV: Whether or not peer support groups are moderated by trained volunteers and professionals

METHODOLOGY

Overview

Neundorf (2002) defines content analysis as the "systematic, objective, quantitative analysis of message characteristics that includes careful examination of human interaction as well as the analysis of numerous roles within the media. Content analysis has been used by Gilat et al., (2011) to determine the frequency and variety of response strategies used in online support groups. Additionally, Gilat et al., (2012) analyzed different response strategies used by trained volunteers and lay individuals in online support groups through a content analysis.

I performed a content analysis of response strategies used by peers in online peer support groups for individuals suffering from suicidal ideations. However, in contrast to Gilat et al., (2012), I analyzed the effect(s) a trained volunteer has on peer response strategies. I used a content analysis to determine the frequency of therapeutic and non-therapeutic response strategies used by peers. I compared the results to a content analysis of therapeutic and non-therapeutic response strategies used by peers in online peer support groups without trained volunteers or therapeutic professionals.

Additionally, the content analysis coded for pro-suicide discussion as well as non-civil and impoliteness in peer support groups. I analyzed the frequency of pro-suicide responses, non-civil responses, and impolite responses in non-moderated online peer groups as well as moderated online peer groups. It is important to note that the members of the non-moderated and moderated peer groups have community guidelines that prohibit pro-suicide responses as well as non-civil and impolite response. However, this content analysis determined the level of effectiveness for each source policing pro-suicide, non-civil, and impolite response. A non-moderated peer group is self-policed by its members whereas a moderated peer group is policed by trained volunteers and professionals. Although each support group serves to meet the same goal in reducing suicidal ideations, the level of moderation may affect how well the groups are at reducing potential barriers to the goal. In this case, pro-suicide,

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non-civil, and impolite response would be considered a barrier to meeting the goal of reducing suicidal ideations.

Artifact Selection

I analyzed two popular websites, The Experience Project and TeenLine Online. The Experience Project served as a source completely self-policed; users are never presented with an identifiable trained volunteer or professional. Users are required to meet community guidelines, but there are no trained volunteers or professionals to direct the flow of conversation, aid in response strategies, provide support, etc. It is completely controlled by the members of the groups who direct the flow of conversation with response strategies as well as report guideline-breaking responses.

Users from the Experience Project create their own groups based on their experiences. Therefore, a keyword search was used to find appropriate groups to analyze. To be considered for this content analysis, the Experience Project groups needed to contain one of the following phrases in the forum title: "commit suicide," "kill myself," "Suicide pact," or "I want to die." After a preliminary analysis of the Experience Project, I found those keyword phrases to be the most frequently used when expressing suicidal ideations.

Although TeenLine Online does not specify age restrictions for posting, the website clearly states its purpose is for teens. Therefore, I only analyzed groups and posts from individuals between the ages of 13 and 19 on the Experience Project. This helped eliminate age as a confounding variable.

TeenLine Online was used to analyze groups where users have been exposed to trained volunteers and/or therapeutic professionals. Users are required to meet community guidelines, and there are trained volunteers and professionals directing the flow of conversation, aiding in response strategies, providing support, etc. The groups are partially controlled by the peers in the groups as well as partially controlled by trained volunteers and professionals. Peers, trained volunteers, and professionals work together to offer support as well as report guideline-breaking responses.

Users from TeenLine Online do not create experiences but rather post new "topics" inside the suicide specific forums. These topics are what the study considers "groups." Considering the TeenLine Online forums are specific to suicidal ideations, I did not need to create keywords to find the groups; I simply needed to be inside the suicide forums to see the groups, which are all related to suicidal ideations.

I collected data from November 2013 to November 2014. This timeframe was chosen because it considers the entire year of events that may occur regularly in one's life such as holidays, birthdays, beginning of school pressure, end of school pressure, etc. These events can sometimes cause spikes in suicidal ideations, which may affect how a person responds to those frequented suicidal ideations. Allowing a year's worth of data helped account for outlier time periods where I would have seen spikes of activity. Although I still potentially measured months with spiked activity, I had a more holistic set of data to measure yearly activity.

Artifact Retrieval and Archiving

I used SnagIt, a tool that allows users to archive screen shots of specific pieces of information on a computer screen. I used the software to archive group posts from source selections. Using Snagit ensured no content was removed or deleted from forums when data was being analyzed.

Variables

The content analysis measured numerous variables. These variables consist of source type, response type, frequency of pro-suicide responses, and frequency of impolite and non-civil comments.

The source type was measured as the distinction of whether or not the investigated groups are moderated by trained volunteers and/or professionals or if they are completely self-policed. Groups investigated in TeenLine Online are moderated sources while groups investigated in the Experience Project are non-moderated.

Moderated peer groups were operationalized as groups staffed by volunteers and professionals with formal training in suicide prevention who respond to distressful messages, have a set of identifiable formal rules, discourage legitimization of suicide, and portray identifiable group norms that encourage support.

Non-moderated peer support groups were operationalized as groups without staff trained in suicide prevention, groups that lack a set of identifiable formal rules, or groups without staff trained in suicide prevention or a set of identifiable rules. The Experience Project was chosen to serve as the non-moderated peer support group for numerous reasons. First, this website makes it easy to identify individuals with suicidal ideations by allowing keyword searches. After a preliminary examination of the website, I was able to determine where the majority of individuals are posting their suicidal ideation experiences. Additionally, the website does not identify users' locations or contact information and has policies set in place to protect a user's identity. The website does list the relative age of a user in increments of four years. For example, a user's age will be listed as 22-25 years of age. This allowed me to eliminate users who do not fit within the teenage audience of TeenLine Online's website. The only confounding variable left was the possibility of a user being 20 or 21 years old when they fit within the 18-21-age bracket or anyone lying about their age.

Response Type

The response types were based on the studies of Gilat et al., (2011, 2012), which measured response types by trained volunteers versus lay individuals. In this content analysis, analyzed response strategies consisting of either non-therapeutic strategies or therapeutic strategies. Therefore, response strategies that did not fall into either therapeutic or non-therapeutic strategies were considered noise and were coded without selecting any of the possible variables. An example of noise would be a user responding to a suicidal ideation with lyrics that signal no signs of support, random words without context, unrelated facts and information, etc.

Responses were coded as to which response categories they fit into and then counted for frequency. Cognitive change inducement, interpretation, and/or empowerment response strategies were marked as peers using therapeutic response strategies. Emotional support, offering group support, self-disclosure, persuasion, advising, and/or referring response strategies were marked as peers using non-therapeutic response strategies. If peers used a combination or response strategies in their answer, such as one therapeutic and one non-therapeutic response, each was counted. After each response strategy in the content analysis was analyzed, the coder and I determined the ratio between therapeutic and non-therapeutic response strategies in each source type and compared the ratios to determine which source type had more peers using therapeutic response strategies. Additionally, the data was entered into GLIMMIX to determine if the results were statistically significant.

Operationalizing Therapeutic Response Strategies

A therapeutic response strategy fit into one or more of the following response strategies: empowerment, cognitive change inducement, and/or interpretation of the suicidal ideation.

Empowerment.

To measure empowerment, coders determined if a response identified internal resources in the individual with suicidal ideations that may help them manage their suicidal ideations. For example, "you are very smart, you will figure it out." This response references a peer's intelligence to make the peer feel as if they have the tools to solve the problem.

Interpretation.

To measure interpretation, coders determined if a response aimed to interpret the psychological and/or social root of their suicidal ideations. For example, "you do not believe in yourself and neither do your peers." This response interprets the root of the suicidal ideations as feelings of confidence both internal and external.

Cognitive Change Inducement.

To measure cognitive change inducement, coders determined if a response offered alternative ways of thinking. For example, "think of the best day of your life." This response offers a positive thought in hopes to reverse the negative thoughts associated with suicidal ideations.

Operationalizing Non-Therapeutic Response Strategies

A non-therapeutic response strategy fit into one or more of the following response strategies: emotional support, offering group support, self-disclosure, persuasion, advising, and/or referring.

Emotional.

To measure emotional support, coders determined if a response expressed one of the following traits: affection, empathy, agreement, or congratulations. For example, "I hope you are feelings better soon." This response provides affection towards the user and agrees with the user that they are indeed not feeling well.

Offering group support.

To measure group support, coders determined if a response is expressed an invitation to join the group, the conversation, or the community to receive support (Gilat et al., 2011). For example, "join the conversation, we are here to help." This response provides the peer with an invitation to be included, welcomed, and supported by potential friends.

Self-disclosure.

To measure self-disclosure, coders determined if a response shared the responder's own suicide-related experience. This experience could have been directly related to him or her or simply be a recall of events from stories learned, experienced, or shared throughout their life experiences. For example, "when I was your age my dad committed suicide, and it was really hard on me." This response self-discloses information regarding the responder's own suicide experience.

Persuasion.

To measure persuasion, coders determined if a response presented arguments against suicide, either actual or hypothetical. For example, "if you commit suicide you will go to hell." This response is using the fear of hell as a persuasion tool against suicide. Keep in mind that persuading someone against suicide is not the same as advising someone against suicide. Whereas persuading is reasons not to commit suicide, advising is usually what steps a peer should take to help eliminate thoughts of suicide.

Advising.

To measure advising, coders determined if a response gave direction to the peer suffering from suicidal ideations. Direction could have been related to specific actions a user is suggesting, or specific actions a peer is telling the peer with suicidal ideations to take. For example "you should go for a long walk and clear your head." This response gives direction as to what specific actions they should take in order to cope with suicidal ideations and prevent worst-case scenario outcomes.

Referring.

To measure referring, coders determined if a response consisted of any professional sources, hotlines, additional peers, emotionally supporting sources, etc. being passed onto the peer suffering from suicidal ideations, in hopes they explore those sources further. For example: "you should consider talking to a Bill Smith; he is a licensed therapist available on the site." This response gives a user a specific source they are able to explore in hopes to reduce their suicidal ideations.

Using multiple response strategies

In a preliminary evaluation of both websites, it was discovered that multiple response strategies are often used in one response. Additionally, advising and referring tend to blend into one another. For example, the majority of the time someone provides sources for another peer, they are doing so to advise them to seek help from those sources. Although advising can often be used without referring a peer to a source, referring a peer to a source is more often than not used as an advising tactic. Therefore

it should be assumed an increased amount of referring may increase the amount of advising, but not necessarily the other way around. That is, an increased amount of advising does not necessarily mean an increased amount of referring. For example, a peer can advise someone to go for a walk. This advising strategy did not refer the peer to anyone. However, I can advise someone to talk to Dr. Johnson. This advisement refers a peer to someone specific.

Frequency of Pro-Suicide Response

Pro-suicide response was conceptualized as information sent by a user that is promoting the idea of suicide, within an individual or larger societal context, by providing statements legitimizing the idea of taking one's own life or offering specific actions and resources to aid in the taking of one's own life.

Pro-suicide response was measured by turning the support strategies into anti-support strategies. However, after a preliminary analysis of the data numerous response strategies were eliminated from the pro-suicide coding process. The preliminary results showed none of the following response strategies used in a pro-suicide context: cognitive change inducement, emotional, interpretation, and referring. Knowing this, the following response strategies were the only response strategies coded for pro-suicide discussion: self-disclosure, advising, persuading, and offering group support. However, in the case of pro-suicide content, offering group support means offering group suicide pact support. For example, "I will meet you in California and we can do it together." It refers to making a suicide a group decision and action rather than the entire group offering pro-suicide messages.

The coder and I counted the number of pro-suicide response strategies in both sources and entered them into frequency tables. Additionally, the data was entered into GLIMMIX to determine if there was a statistically significant difference between the frequency of pro-suicide discussion between the two sources.

Frequency of Incivility and Impoliteness

In a similar approach to coding pro-suicide response, the coder and I will also coded the frequency of incivility and impoliteness within responses. Using a previous coding scheme developed by Papacharissi (2004), I was able to code the frequency of specific non-civil responses as well as the frequency of specific impolite responses. However, after preliminary analysis, I revised Papacharissi's (2004) coding scheme to better fit this study. Essentially, I only coded the variables from Papacharissi's (2004) study that were relevant to this study. This includes coding for stereotyping, name-calling, aspersions, vulgarity, hyperbole, and sarcasm.

Coder Training

After explaining the coding schemes to the coder, I hosted practice-coding sessions from the two sources, grabbing a wide-range of response strategies to give the coder a holistic view of the artifacts. The coder scanned the samples and examined the units of analysis to place response strategies into appropriate category schemes. Following the practice session, we discussed our coding of the response strategies. Based on the reliability of the practice test, I revised the coding scheme and re-coded until we reached an intercoder reliability of 0.80 using Scotts Pi.

Intercoder Reliability

According to Neundorf (2002), the reliability of the coding scheme must be established for the content analysis to be successful. The coder and I worked independently to code 10% of the response strategies from each source. That is, both the coder and I coded 10% from the Experience Project as well as 10% from TeenLine Online independently. Once the response strategies were coded I used Scott's Pi to test the categorical variables for intercoder reliability. The goal was to reach an intercoder reliability level of .80 or above. According to Neundorf (2002), reliability coefficients of .90 or more are always acceptable and .80 and more generally acceptable. As mentioned above, an intercoder reliability level of .80 was reached.

Operationalized Concepts

      Each concept was operationalized in the table starting with non-moderated and moderated online peer support forums. Both websites fit within only one of the categories. For example, the Experience Project only fit within the operationalized definition of non-moderated online peer support forums without trained volunteers and TeenLine Online only fit within the operationalized definition of moderated online peer support forums with trained volunteers. Following non-moderated and moderated forums was pro-suicide discussion. Any discussion fitting within the response categories (i.e. self-disclosing suicidal plans, acts, or methods, advising peers to commit suicide, offering group suicide pact, or more than one of the above responses used) was considered pro-suicide discussion. Each response category was further operationalized to provide clear measurements of response categories. The same process followed for incivility and impoliteness as well as for both therapeutic responses and non-therapeutic responses. The response categories are provided and each response category was further operationalized. Examples of all response categories can be found in Appendix A.

Table 1: Concept operationalization

Non-moderated online peer support forums without trained volunteers	Moderated online peer support forums with trained volunteers
Groups without volunteers trained in suicide prevention and without member moderators	Groups with volunteers trained in suicide prevention and member moderator
Groups without staff or professionals trained in suicide prevention and without member moderators	Groups with staff or professionals trained in suicide prevention and member moderator
Groups without staff, professionals, or trained volunteers in suicide prevention and without member moderators	Groups with volunteers, staff or professionals trained in suicide prevention and member moderator
Pro-Suicide Discussion	
Self-disclosing suicidal plans, acts, or methods	
Advising peers to commit suicide	
Persuading peers to commit suicide	
Offering group suicide pact	

More than one of the above responses used				
Self-disclosing suicidal plans, acts, or methods	Disclosing plans to commit suicide	Disclosing methods to commit suicide	Disclosing suicidal ideations as a response without accompanying suicide support strategy	Disclosing prior acts of suicide without accompanying suicide support message	More than one of the responses
Advising	Telling or suggesting a peer commits suicide	Telling or suggesting a method of suicide a peers should use	Telling or suggesting a plan for a peer to commit suicide	More than one of the responses	
Persuading	Presenting arguments supporting suicidal behavior	Presenting arguments supporting freedom of choice in one's death	Presenting arguments that support suicidal ideations	More than one of the responses	
Group suicide	Offering or suggesting a group suicide pact				

Incivility and Impoliteness

Stereotyping (incivility)
Name-calling (impolite)
Aspersion (impolite)
Vulgar (impolite)
Sarcasm (impolite)
Hyperbole (impolite)

More than one of the above responses used				
Stereotyping	Express oversimplified idea of person or suicidal ideation	Comment includes group labels (e.g. depressed people)	Expressing generalized assumptions about suicidal ideation or person	More than one of the responses
Name-calling	Express derogatory words towards user			
Aspersion	Attack the reputation of user posting suicidal ideations	Attack the integrity of user posting suicidal ideations	Comment attempts to belittle user	More than one of the responses
Vulgar	Comment includes curse- words	Comment includes sexual innuendos	Comment includes vulgar abbreviations	More than one of the responses
Sarcasm	Comment mocks user using irony	Comment mocks suicidal ideation using irony	More than one of the responses	
Hyperbole	Comment contains massive overstatement phrase	Comment contains massive overstatement descriptive words	More than one of the responses	

Therapeutic response

Empowerment
Interpretation
Cognitive change inducement
More than one of the above responses

Empowerment	Identify a peer's intelligence as a response	Identify a peer's emotional strength as a response	Identify a peer's resilience as a response	More than one of the responses
Interpretation	Interpret psychological root of the suicidal ideations	Interpret the social root of the suicidal ideations	More than one of the responses	
Cognitive change inducement	Offer alternative way of thinking during suicidal ideations			

Non-therapeutic response
Emotional support
Offering group support
Self-disclosure
Persuasion
Advising
Referring
More than one of the above responses

Emotional support	Expressing affection	Expressing empathy	Expressing agreement	Expressing congratulations	One of more of the responses		
Offering group support	Invitation to join the group	Invitation to join the conversation	One or more of the responses				
Self-disclosure	Sharing one's own suicidal ideations with support message	Sharing one's past suicide-related experiences with support message	Sharing learned lessons regarding suicide	One or more of the responses			
Persuasion	Arguments against suicide behavior	Arguments against suicidal ideations	Arguments against freedom of choice in one's death	One or more of the responses			
Advising	Offering directions as to what actions to take to alleviate suicidal ideations	Offering directions as to what actions to take to prevent suicidal ideations	More than one of the responses				
Referring	Referring peer to a specific helpful website	Referring peer to a specific hotline	Referring peer to a specific online chat	Referring peer to a specific therapist	Referring peer to a specific online user within the group	Referring peer to a specific online user outside the group	More than one of the responses

Constructing Content Categories

A content analysis with a priori coding system was used in this study. The following were the

categories for "online peer support groups" for people suffering from suicidal ideations:

1. Online peer support groups
   a. Trained volunteers with forum moderators
   b. No trained volunteers and no forum moderators

The following were the categories for "therapeutic responses" on the Experience Project and

Teenline Online:

1. Therapeutic response
   a. Therapeutic response strategy used
   b. Therapeutic response strategy not used

2. Empowerment
   a. Empowerment response strategy used
   b. Empowerment response strategy not used

3. Interpretation
   a. Interpretation strategy used
   b. Interpretation strategy not used

4. Cognitive change inducement
   a. Cognitive change inducement strategy used
   b. Cognitive change inducement strategy not used

The following were the categories for "non-therapeutic responses" on the Experience Project and

Teenline Online:

1. Non-therapeutic response
   a. Non-therapeutic response strategy used
   b. Non-therapeutic response strategy not used

2. Emotional support
   a. Emotional support strategy used
   b. Emotional support strategy not used

3. Offering group support
   a. Offering group support strategy used
   b. Offering group support strategy not used

4. Self-disclosure
   a. Self-disclosure support strategy used
   b. Self-disclosure support strategy not used

5. Persuasion
   a. Persuasion strategy used
   b. Persuasion strategy not used

6. Advising
   a. Advising strategy used
   b. Advising strategy not used

7. Referring
   a. Referring strategy used
   b. Referring strategy not used

The following were the categories for "pro-suicide discussion" on Teenline Online as well as the

Experience Project:

1. Pro-suicide response
   a. Pro-suicide response used
   b. Pro-suicide response not used

2. Self-disclosing
   a. Self-disclosure strategy used
   b. Self-disclosure strategy not used

3. Advising
   a. Advising users to commit suicide response strategy used
   b. Advising users to commit suicide response strategy not used

4. Offering group suicide pact
   a. Offering group suicide pact response strategy used
   b. Offering group suicide pact response strategy not used

5. Persuading
   a. Persuading users to commit suicide response strategy used
   b. Persuading users to commit suicide response strategy not used

The following were the content categories for "Incivility and Impoliteness" for TeenLine Online

as well as The Experirence Project:

1. Stereotyping
   a. Stereotyping used within the response
   b. Stereotyping not used within the response

2. Name-calling
   a. Name-calling used within the response
   b. Name-calling not used within the response

3. Aspersion
   a. Aspersion used within the response
   b. Aspersion not used within the response

4. Vulgarity
    a. Vulgarity used within the response
    b. Vulgarity not used within the response

5. Hyperbole
    a. Hyperbole used within the response
    b. Hyperbole not used within the response

6. Sarcasm
    a. Sarcasm used within the response
    b. Sarcasm not used within the response

Code Sheet

Coders used one code sheet per message. The code sheet contained all content categories. The coder circled the correct option for each category. For example, if the coder or I circled that a "therapeutic response strategy was used," the coder or I circled the appropriate response strategy used option, which is interpretation, cognitive change inducement, empowerment, or a combination of multiple responses. If multiple therapeutic response strategies were used we circled which therapeutic response strategies were used in the response. Response strategies not used were circled with the appropriate selection. For example, "cognitive change inducement response strategy not used," represented the absence of the cognitive change inducement strategy in the peer's response. If a peer used interpretation and cognitive change inducement, the coder or I selected "therapeutic response strategy used," "cognitive change inducement strategy used," and "Interpretation response strategy used." Additionally, the coder or I selected "empowerment response strategy not used."

Dummy Codes

Dummy codes were assigned by the numbers inside each category. For example, if we were quantifying "persuading users to commit suicide" the numeral 5.1 represented "Persuading users to commit suicide response strategy used."

Research Procedure

Prior to the official period of study, one coder was trained in the coding process. The training process familiarized the coder with the study to provide a more reliable analysis. Practice peer support groups from a non-moderated peer support group (the Experience Project) and a moderated peer support group (TeenLine Online) were used. In addition, the actual Experience Project and TeenLine Online peer support groups were used for a pilot study at the end of the training.

The pilot sample of the universe contained ten peer support groups from The Experience Project and ten peer support groups from TeenLine Online. The coder examined ten of the twenty total peer support groups, five from each of the platforms. The results of the pilot test were not used in the primary study.

At the completion of training, coders received a detailed coding guidebook to use as a reference during the official coding period.

Coding Process

Fifty randomly chosen non-moderated peer support groups were numbered 1-50 according to the order it was chosen. For example, if we randomly selected peer group number 15 in the Experience Project, then starting from the 15th topic post, I selected another random number, for example 20. We counted down from a randomly chosen number (15) until we reached another randomly chosen number (20), leaving us with the final topic post number 35. Therefore, the 35th topic post on the Experience Project was our first non-moderated peer support group without a trained volunteer. We continued this process with a random number generator until we reached 50 non-moderated peer support groups.

However, because we could not search all three keywords at one single time we needed to collect the entire population of our universe before we started to sample. We collected every single support group for the Experience Project that met our keyword, time, and age criteria and organized the data into one master population list. The list was used to sample from.

The same process followed for the moderated peer support groups. However, I did not need to use the keywords because TeenLine Online forums had a category specifically for suicide. We randomly drew a number, for example 16. From the 16th topic post we will drew another random number, for example 30. We counted 30 topic posts down from 16, which left us with topic post number 46. We stopped at the appropriate place until we had a total of 50 moderated peer support groups.

The coder and I viewed each topic post in order of the items on the code sheet and filled in the corresponding space on the code sheet for each peer response inside the topic posts. Collectively, the coder and I coded the entire sample. The coder took the first 25 topic posts on the Experience Project as well as the first 25 topic posts on TeenLine Online; I took the remaining 25 topic posts on the Experience Project as well as the remaining 25 on TeenLine Online.

Coder 1: Randomly selected peer support groups

- 1-25 The Experience Project
- 1-25 TeenLine Online

Coder 2: Randomly selected peer support groups

- 26-50 The Experience Project
- 26-50 TeenLine Online

Data Analysis

The coder and I entered the data into frequency tables. The categorical data was entered into GLIMMIX for inferential statistics.

Reliability Pre-test Measures

The preliminary measures began with the initial development of the codebook. To define categories and category boundaries, the Experience Project and TeenLine Online peer support groups were carefully analyzed and previous studies with similar concepts and operationalizations were studied. All possible categories on the support group are as described in the code sheet.

To eliminate methodological problems, I trained the coder thoroughly. As discussed, a detailed coding guidebook was used during coding. Our detailed training clarified confusion and protected against errors between coders.

Reliability Post-test Measures

Intercoder reliability was accounted for using Scott's Pi method of analysis, which considers the number of categories used and the probable frequency of use. To determine Scott's Pi, we entered our data into ReCal, a credible and well-cited online program that runs Scott's Pi.

All data was entered into GLIMMIX (generalized linear model) before analysis. When running data, GLIMMIX was programed to account for two random effects. First, the program needed to account for the instance of multiple users responding to the suicidal ideations. Second, the program needed to account for the instance of multiple responses from the same users within the same forum. GLIMMIX was also used to run tests on a binomial response distribution, which occurred within the data. We coded 115 responses under the Experience Project and 119 responses from TeenLine Online.

Table 2: Frequencies from the Experience Project

Variable	Yes	No	Percentage	Total
Therapeutic responses				
Empowerment	9	106	7.8%	115
Interpretation	9	106	7.8%	115
Cognitive change inducement	11	95	9.6%	115
Therapeutic response	24	91	20.9%	115
Non-therapeutic responses				
Emotional support	14	101	12.2%	115
Offering group support	13	102	11.3%	115
Self-disclosure	18	97	15.7%	115
Persuasion	30	85	26.1%	115
Advising	40	75	34.8%	115
Referring	6	109	5.2%	115

Non-therapeutic response	73	42	63.5%	115
Pro-suicide responses				
Self-disclosure	9	106	7.8%	115
Advising	0	115	0.0%	115
Persuading	1	114	0.9%	115
Offering group suicide pact	2	113	1.7%	115
Pro-suicide response	12	103	10.4%	115
Incivility and impoliteness				
Name calling	3	112	2.6%	115
Stereotype	7	108	6.1%	115
Aspersion	11	104	9.6%	115
Vulgar	2	113	1.7%	115
Sarcasm	6	109	5.2%	115
Hyperbole	1	114	0.9%	115
Uncivil/impolite response	16	99	13.9%	115

Table 3: Frequencies from TeenLine Online

Variable	Yes	No	Percent	Total
Therapeutic responses				
Empowerment	17	102	14.3%	119
Interpretation	15	104	12.6%	119

Cognitive change inducement	29	90	24.4%	119
Therapeutic response	47	72	39.5%	119
Non-therapeutic responses				
Emotional support	51	68	42.9%	119
Offering group support	53	66	44.5%	119
Self-disclosure	21	98	17.6%	119
Persuasion	34	85	28.6%	119
Advising	58	61	48.7%	119
Referring	14	105	11.8%	119
Non-therapeutic response	100	19	84.0%	119
Pro-suicide responses				
Self-disclosure	3	116	2.5%	119
Advising	0	119	0.0%	119
Persuading	0	119	0.0%	119
Offering group suicide pact	0	119	0.0%	119
Pro-suicide response	3	116	2.5%	119
Incivility and impoliteness				
Name calling	0	119	0.0%	119
Stereotype	0	119	0.0%	119
Aspersion	0	119	0.0%	119
Vulgar	0	119	0.0%	119
Sarcasm	1	118	0.8%	119
Hyperbole	0	119	0.0%	119
Uncivil/impolite response	1	118	0.8%	119

Table 4: Distribution of variables from the Experience Project

Variable	Mean	Std. Deviation	Variance
Therapeutic responses			
Empowerment	0.08	0.270	0.073
Interpretation	0.08	0.270	0.073
Cognitive change inducement	0.10	0.300	0.087
Therapeutic response	0.21	0.408	0.167
Non-therapeutic responses			
Emotional support	0.12	0.328	0.108
Offering group support	0.11	0.318	0.101
Self-disclosure	0.16	0.365	0.133
Persuasion	0.26	0.441	0.195
Advising	0.35	0.478	0.229
Referring	0.05	0.223	0.050
Non-therapeutic response	0.64	0.484	0.234
Pro-suicide responses			
Self-disclosure	0.08	0.270	0.073
Advising	0.0	0	0
Persuading	0.01	0.093	0.009
Offering group suicide pact	0.02	0.131	0.017
Pro-suicide response	0.10	0.307	0.094
Incivility and impoliteness			
Name calling	0.03	0.160	0.026
Stereotype	0.06	0.240	0.058
Aspersion	0.10	0.295	0.087
Vulgar	0.20	0.131	0.017
Sarcasm	0.05	0.223	0.050
Hyperbole	0.01	0.093	0.009
Uncivil/impolite response	0.14	0.348	0.121

Table 5: Distribution of variables from TeenLine Online

Variable	Mean	Std. Deviation	Variance
Therapeutic responses			
Empowerment	0.14	0.351	0.123
Interpretation	0.13	0.333	0.111
Cognitive change inducement	0.24	0.431	0.186
Therapeutic response	0.40	0.491	0.241
Non-therapeutic responses			
Emotional support	0.43	0.497	0.247
Offering group support	0.45	0.499	0.249
Self-disclosure	0.18	0.383	0.147

Persuasion	0.29	0.454	0.206
Advising	0.49	0.502	0.252
Referring	0.12	0.324	0.105
Non-therapeutic response	0.84	0.368	0.135
Pro-suicide responses			
Self-disclosure	0.03	0.157	0.025
Advising	0.0	0	0
Persuading	0.0	0	0
Offering group suicide pact	0.0	0	0
Pro-suicide response	0.03	0.157	0.025
Incivility and impoliteness			
Name calling	0.0	0	0
Stereotype	0.0	0	0
Aspersion	0.0	0	0
Vulgar	0.0	0	0
Sarcasm	0.01	0.092	0.008
Hyperbole	0.0	0	0
Uncivil/impolite response	0.01	0.092	0.008

Pro-suicide Response

The first hypothesis stated peers in non-moderated online peer groups would respond more frequently with pro-suicide responses to suicidal ideations than peers in moderated online peer groups. The content analysis suggested that pro-suicide responses were indeed found more frequently in non-moderated online peer groups. Out of the 115 peer responses coded from the experience project, 12 responses contained pro-suicide messages. The findings indicate that slightly more than 10% of responses to suicidal ideations in the Experience Project contained pro-suicide response. Although TeenLine Online also contained pro-suicide responses, it was less frequently observed. Out of the 119 peer responses coded from TeenLine Online, only three contained pro-suicide response. The findings indicate that 2.5% of responses coded from TeenLine Online contained pro-suicide responses.

To determine if the data reached significant levels, the data was run through GLIMMIX and programmed to account for two random effects: The instance of multiple users responding to the suicidal ideations, and the instance of multiple responses from the same users within the same peer group. The data reached a significance level of 0.0282, concluding with 95% confidence that the

Experience Project is more likely to contain pro-suicide responses from peers than TeenLine Online. The mean was 0.02814 with a standard error of 0.008853 for the Experience Project, and the mean was 0.006164 with a standard error of 0.003760 for TeenLine Online. Taking the random effects into consideration, it can be concluded with 95% confidence that peers are four and a half times more likely to experience pro-suicide responses when posting suicidal ideations to the Experience Project than when posting suicidal ideations to TeenLine Online. Therefore, the data supports the first hypothesis.

H1: In non-moderated online peer groups, pro-suicide response strategies are more frequently observed than in moderated peer groups.

Non-civil and Impolite Response

The second hypothesis stated peers will respond to suicidal ideations with non-civil and impolite comments more frequently in non-moderated groups compared to peers in moderated groups. The content analysis found 16 out of 115 coded responses had at least one non-civil or impolite response in the Experience Project; 13.9% of coded responses contained non-civil or impolite responses to suicidal ideations. Only one out of 119 coded responses had a non-civil or impolite response in TeenLine Online; 0.8% of coded responses contained non-civil or impolite responses.

To determine if the data reached significant levels, it was run through GLIMMIX and programmed to account for two random effects: The instance of multiple users responding to the suicidal ideations, and the instance of multiple responses from the same users within the same peer group. The data reached a significance level of 0.0029, concluding with 99% confidence that the Experience Project is more likely to contain non-civil or impolite responses to suicidal ideations than TeenLine Online. The mean was 0.01454 with a standard error of 0.000582 for the Experience Project, and the mean was 0.000531 with a standard error of 0.000582 for TeenLine Online. Taking the random effects into consideration, it can be concluded with 99% confidence that the Experience Project is more than 27 times more likely to contain non-civil or impolite comments then TeenLine Online when posting

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suicidal ideations. The data supports the second hypothesis. *H2: Participants will respond to suicidal ideations with non-civil and impolite comments more frequently in peer groups without trained volunteers than participants in peer groups without trained volunteers.*

Therapeutic and Non-therapeutic Response

The third hypothesis stated that peers in moderated online groups would respond with more therapeutic response strategies than peers in non-moderated online groups. The study found that 24 of 115 responses were coded as containing at least one therapeutic strategy in the non-moderated online peer groups within the Experience Project and that 47 of 119 responses were coded as containing at least one therapeutic response strategy in the moderated online peer groups within TeenLine Online. That is, 20.9% of responses coded in the Experience Project contained at least one therapeutic response strategy and 39.5% of responses coded in TeenLine Online contained at least one therapeutic response strategy.

To determine if the data reached significant levels, the data was run through GLIMMIX and programmed to account for two random effects: The instance of multiple users responding to the suicidal ideations, and the instance of multiple responses from the same users within the same peer group. The data reached a significance level of 0.0458, concluding with 95% confidence that peers responding to suicidal ideations on TeenLine Online are more likely to use therapeutic response strategies than peers responding to suicidal ideations on the Experience Project. The mean was 0.08395 with a standard error of 0.02032 for the Experience Project; the mean was 0.1674 with a standard error of 0.03974 for TeenLine Online. Taking the random effects into consideration, TeenLine Online peers are almost twice as likely to respond with therapeutic response strategies than peers responding to suicidal ideations on the Experience Project. The data supports the third hypothesis. *H3: Participants will respond to suicidal ideations with therapeutic responses more frequently in peer groups with trained volunteers than participants in peer groups without trained volunteers.*

DISCUSSION

Pro-Suicide Response

The content analysis found that both moderated and non-moderated websites contained some level of pro-suicide response to suicidal ideations. However, the moderated website had significantly fewer pro-suicide responses than the non-moderated website. The most common type of pro-suicide response was self-disclosing suicidal ideations without adding support messages. Although the effects of disclosing suicidal ideations to peers considering suicide are not clear, research suggests when the severity of suicidal ideation is high, the degree of receiving and providing social support decreases significantly, and strong feelings of dissatisfaction with social support emerge (Endo et al., 2013). Taken in context, many peers who responded with self-disclosing suicidal ideations did not do so with the intent to contribute to pro-suicide discussion. It is possible that responding to suicidal ideations with one's own suicidal ideations could help eliminate feelings of isolation and loneliness, which is directly associated with suicidal ideations (Gilat et al., 2011). However, responding by self-disclosing suicidal ideations does not offer any type of support. Instead, it shifts the conversation to the responder's suicidal ideations, thus taking away the focus from the original poster and his or her suicidal ideations. The study did not evaluate how effective certain responses were. Therefore, it cannot be concluded if responding to suicidal ideations with one's own suicidal ideations is always harmful. Most likely the degree to which one's own suicidal ideations provide any mental relief to another suffering from suicidal ideations heavily depends on the context of the original suicidal ideation as well as the exact wording of the response.

Multiple responses were coded as offering group suicide pacts in the Experience Project. As suggested by Silva (2010), peers on the Experience Project could be seeking the feeling of being "needed" by another human as a way to demonstrate a sense of meaning and purpose to that peer's

life. Thus, responding to a suicidal ideation with a pact offering could be a way of providing meaning to the responder's life. This response is particularly harmful because it rejects all support and suggests actual suicide action to take place in the future. This type of response reduces all perceptions of support felt by the suicidal individual and therefore could potentially push them further into a suicidal state (Endo et al., 2013).

One response on the Experience Project was coded as persuading a peer to commit suicide. This response is best described as an example of Suler's (2005) toxic disinhibition effect. That is, the peer from the Experience Project acted more rude, critical, angry, hateful, and threatening than he or she would have in the "real" world (Suler, 2005). Peers in the Experience Project have almost complete dissociative anonymity, or "nonidentifiability" (Wallace, 1999). Users cannot trace a peer's location, age, name, gender, school, etc. unless a peer chooses to disclose that information. According to Suler (2005), this trait is a key component in making an online user feel as if he or she can separate their online actions from their in-person identity, which increase the chance user's will act out in ways not typical to their real world personality.

According to Scott and Orlikowski (2014), this behavior is more common online than in person because anonymity allows users to become less self-aware, less involved in self-evaluation, and not as concerned about social comparison because the users engaging in this behavior are rarely held *accountable*. Accountability may be the key difference as to why we saw a greater breadth of pro-suicide response in the Experience Project compared to TeenLine Online. TeenLine Online has trained volunteers, licensed professionals, and moderators engaging with the groups by steering discussion, taking down inappropriate content, and providing support. Therefore, they are more likely to find any occurrence of pro-suicide discussion and eliminate it immediately. Additionally, trained volunteers have easy accessibility to those who control website function, such as membership. Considering identities are

provided to gain membership, and moderators have access to membership, it can be logically assessed that moderators have access to identity. This access to identity hinders dissociative anonymity.

It could be argued that identity can be tracked in the Experience Project. However, a peer will never have access to the functions of the website and therefore will never have access to the identity of another peer. If a peer is reported by another peer, then website administration can track their identity and hold them accountable. However, this is a multi-step process that is inhibited by a command of operations and arduous communication, which could be a primary reason as to why the Experience Project doesn't prove itself as effective in self-policing as TeenLine Online does in moderating.

Contrary to the research by Recupero, & Noble (2008) as well as Alao et al., (2006), neither the Experience Project nor TeenLine Online contained specific methods of suicide as a response to individual's suicidal ideations. Interestingly, a number of posts made by suicidal individuals contained specific methods of suicide, unfortunately the study did not code for these occurrences. Additionally, some posts by suicidal individuals contained inquiries as to the best way to commit suicide. Although the primary study did not find any suicide methods as a response to these posts, the pre-study coder training sessions did find instances where specific suicide methods were included within a pro-suicide response. Additionally, in the pre-study coder training session, there was at least one response coded as giving advice as to the most "painless" way to die.

Again, this phenomenon can partially be explained by dissociative anonymity. However, in addition, the disinhibition effect's attenuated status and authority, which is a lack of social cues in communication that results in a reduced impact of authority figures (Suler, 2005), could also play a significant role in the difference between pro-suicide discussion in the Experience Project and pro-suicide discussion in TeenLine Online. Although both websites lack social cues such as dress, body language, embellishments of settings, etc., TeenLine Online does have social cues that the Experience Project does not. For example, TeenLine Online has numerous areas on the website that include

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professional staff and volunteer photos. Many of the photos included on the website come from

professional assemblies, luncheons, memorials, fundraisers, etc. These photos provide social cues

(dress, body language, leadership, etc.) and demonstrate the professionalism and importance of the

organization, thus increasing the sense of staff and volunteer authority. Additionally, TeenLine Online

contains a bolded listing of prominent sponsors such as Nestle USA and Sony Pictures. Being supported

by well-known and powerful commercial business increases perceptions of TeenLine Online authority.

Lastly, the interactivity functions on TeenLine Online are significantly different to the

interactivity features on the Experience Project. The features on the Experience Project are setup similar

to a social media site, where you have an updating newsfeed that shares the experiences from people

you follow or experiences you associate with. You can favorite user's responses, and add your own

responses to experiences showing up on your newsfeed. Additionally, you can create and update your

status at the top right of your home page. The primary functions from the homepage are to create an

experience, ask a question, explore experiences, or find people. These features outline the importance

of connecting, making friends, commenting on posts, favoriting posts, and sharing immediate feelings.

Although these features can be used to seek support, they don't outline authoritative status and

therefore could contribute to users feeling a reduction in the impact of authority figures (website

administration) on the website.

When visiting the homepage of TeenLine Online, the first thing you notice is the technical savvy.

Information is setup as easily readable and clickable buttons, interactive scrolling headlines, dropdown

menus, prominent information is outlined and easily understood, etc. The technology of the website

contributes to a feeling of professionalism, which helps contribute to a feeling of authority. Additionally,

TeenLine is not setup as a social media website but rather a help-seeking website that can be used as

social media. For example, teens can choose which type of medium they want to use: call, text, email, or

message board (support groups). These options both create choice as well as limit website

interpretation. Although a user feels they have choices in which to seek help, they have limited options

on the type of communication the service can be used for. The teens are ultimately told what the

website can and can't be used for, which is a demonstration of company authority. Whereas the

Experience Project has a small ability to guide website use, TeenLine Online essentially makes the rules

and moderates the website to ensure users are following the rules. These key features demonstrate far

more authority than the Experience Project.

Although both websites still have disinhibition effects, the decrease in dissociative anonymity as

well as the increase in authority within TeenLine Online, reduces the impacts of disinhibition effects. Not

only does this help demonstrate Suler's disinhibition effects theory, it suggest that a website can make

certain changes to counter the toxic disinhibition effect

Non-civil and Impolite Response

Research by Canter (2013) and Ruiz, Domingo, Mico, Diaz-Noci, Meso, & Massip (2011) found

that although non-civil and impolite comments via computer-mediated-communication exist, it is

considerably less common than what people expect. However, the content analysis found the frequency

of the non-civil and impolite responses is heavily dependent on the nature of the website. Similarly, a

study by Rowe (2014) found the frequency of non-civil and impolite political comments heavily

depended on the level of anonymity. In the Rowe (2014) study, political discussion on the Washington

Post, which had a high level of anonymity, was significantly more likely to be uncivil and impolite than

political discussion on the same political topics found on the Washington Post Facebook page, which has

a lower level of anonymity (Rowe, 2014).

Although non-civil and impolite responses exist in moderated websites, the study coded less

than 1% of responses containing non-civil or impolite responses. However, if the website was not

monitored by a trained volunteer it had a considerably higher frequency of non-civil and impolite

response. If a user posted a suicidal ideation to the Experience Project, the study suggests almost a 14% chance of having a non-civil or impolite comment directed towards them.

Once again, I propose that Teenline Online is perceived to have a lower level of anonymity due to the fact that professionals and trained volunteers, who have access to member identity, are monitoring the comments of the website. I believe the study demonstrates the level of anonymity on a website plays a large role in the frequency of non-civil and impolite response.

It is important to note that non-civil and impolite responses were coded at all levels in the Experience Project. That is, at least one account of name-calling, stereotyping, aspersion, vulgarity, sarcasm, and hyperbole occurred during coding. However, the only occurrence of non-civility or impoliteness occurring in TeenLine Online was sarcasm, which was only found one time. Stereotyping, aspersion, and sarcasm were the most popular types of non-civil or impolite comments occurring in the Experience Project. Therefore, I also propose the level of anonymity may have an impact as to the types of non-civil and impolite comments taking place within the discussion.

Therapeutic and Non-therapeutic Response

Research by Gilat et al., (2012) demonstrated that trained volunteers frequently use therapeutic strategies including empowerment, interpretations, and cognitive change inducement in responding to suicidal ideations more frequently than lay individual peers. This study research provides evidence for the hypothesis that peers will respond with therapeutic responses more frequently if they are responding within an atmosphere where trained volunteers are also responding. Although both non-moderated and moderated peer groups saw therapeutic response strategies being used, therapeutic response strategies were almost twice as likely to occur on the moderated website. Both websites had all three categories of therapeutic responses being used; empowerment, interpretation, and cognitive change inducement was coded more than once in each website.

This phenomenon could be explained by Bandura's social cognitive theory. One possible reason peers responded with therapeutic response more frequently in moderated groups than peers in non-moderated groups is that peers are able to observe the responses made by trained volunteers as well as the how the responses by the trained volunteers are rewarded, disregarded, or punished within groups moderated by trained volunteers. The research by Gilat et al., (2012) showed more trained volunteers using therapeutic response to suicidal ideations. Therefore, peers in moderated online groups should be able to observe trained volunteers using therapeutic response as well as model the response type.

Although the research did not draw any hypothesis for the frequency of responses made by one peer, it was evident that fewer peers were responding in moderated peer groups. However, these peers, although limited in numbers, were responding to far more suicidal individuals than the peers in the Experience Project. For example, one peer (SamLite) responding to suicidal ideations in TeenLine Online had more than 1,000 replies to peers who were experiencing suicidal ideations. SamLite demonstrated a great breadth of response strategies and seemed to have mastered the art of combining different strategies to achieve positive results. SamLite was not identified as a trained volunteer, but most likely has seen a high volume of trained volunteer responses considering his high activity level on the website. No peer responders on the Experience Project came close to any of the responders on TeenLine Online in terms of the frequency of responses to numerous suicidal ideations.

The frequency of individual users responding to suicidal ideations on TeenLine Online strengthens Walther's hyperpersonal model of computer-mediated-communication, which states online users can build more intimate relationships online than people who engage in face-to-face communication (Walther, 1996). TeenLine Online demonstrated the ability for users to self-present their attitudes by inhibiting social cues present in face-to-face communication. For example, SamLite self-presented the attitudes he or she wanted to be seen. Ultimately, he of she was the help-giver and never the help-seeker, he or she was logical rather than emotional, and presented him or herself as caring and

often available for help giving. Throughout SamLite's responses, we did not detect much deviation from this format. However, one must assume there is significantly more to SamLite than those simple qualities. For example: Does SamLite twitch? Is SamLite always nice to mom? Is SamLite also in need of help?

The study also suggests feedback is a key component to an online user's personality when responding to suicidal ideation. Walther et al., (2011) classify feedback as reciprocal interaction with others that reinforces one's online performance. This would explain why users who frequent TeenLine Online, typically stick to their personalities. For example, SamLite's role on the website has been reinforced thousands of times and therefore it is highly unlikely he is going to deviate from his role and suddenly become the help-seeker. Additionally, the coder and I noticed some users post suicidal ideations frequently in which members such as SamLite and other popular peer help-givers would come to their aid. Once again this feedback loop reinforces the roles each user plays. Rarely did the coder or I find suicidal individuals become help-givers, especially if they are a frequent suicidal ideation poster.

Suggestions

A follow-up study to this could be a quantitative analysis of specific peer responders between TeenLine Online and the Experience Project. It would be interesting to see exactly how many peers are responding in TeenLine Online compared to the Experience Project. Although I speculate a significant difference between the two, it would be valuable to draw exact conclusions. Additionally, a study should examine if the frequency of responses by one user (a particular user's experience level in responding to suicidal ideations) has an effect on the breadth of response types used within their support messages. Once again, I speculate the more experience a user has in responding to suicidal ideations, the greater the breadth of response types.

Although difficult, it is crucial to determine which response strategies used online work best for reducing suicidal ideations. To do this, researchers first need to be able to categorize suicidal individuals.

A qualitative content analysis could be done to determine if certain patterns occur within the demographics of peers experiencing suicidal ideations. For example, maybe teens are more likely to post suicidal ideations due to family and school troubles. Additionally, maybe older adults are more likely to post suicidal ideations due to lonesomeness. Researchers need to take demographics from suicidal ideation posters (age, location, gender, etc.) and look for patterns within their messages. These patterns could help build online suicide personalities, which could aid in finding the best treatment for those who have similar personality types.

The second step in determining which response strategies work best for reducing suicidal ideations is to examine which support strategies seem to work best for each online suicide personality. For example, maybe Hispanic teenage females experiencing family isolation typically respond most positively to cognitive change inducement, and maybe American adult males experiencing lonesomeness typically respond most positively to empowerment and emotional support. Trained volunteers could respond to suicidal ideations online and track as well as report their outcomes. For example, at the end of a conversation, a peer could say "thank you, this helps a lot." This response would then be reported positively. If a peer doesn't show improvement from one particular strategy but does show improvement from another particular strategy, it could demonstrate the importance of using specific response strategies for specific online suicide personalities.

Lastly, the study needs to be replicated on numerous moderated and moderated online peer groups. It would be beneficial to run a similar study on two different moderated and non-moderated websites to determine if the hypothesis can be generalized to all moderated and non-moderated websites.

Limitations

One limitation of this study is its qualitative epistemology. Although the codebook is specific and inter-coder reliability was reached, the analysis of the posts are still subjective in nature. According to

Masue, Swai, & Anasel (2013), qualitative research requires a deep understanding of specific instances in time or a small number of cases. This study examined and coded 234 total responses for the frequency of 21 variables, which can hardly be considered a "small number of cases." Due to the fact that qualitative research attempts to understand the outcomes of specific instances, it cannot be said that these results are generalizable, which is why I suggest repetition of this study.

Another limitation is that similar demographics cannot be guaranteed between the two websites used. TeenLine Online is created for teens, however there is no guarantee people on TeenLine Online are not younger than 13 or older than 19, because age is either anonymous, or people could easily lie about their age to gain access to the website's features. Additionally, the Experience Project shows a user's age on a scale. For example, a user's age could show as "18-21." These comments were still coded under the assumption the user was either 18 or 19 years old. Once again, there is no guarantee people on the Experience Project are not lying about their age. Therefore there is no guarantee all responders in this study were teenagers.

Although this study supports the hypotheses that peers in moderated groups will respond less frequently with pro-suicide and non-civil/impolite responses than peers in non-moderated groups, we cannot be sure why this phenomenon occurs. One possibility is that moderators are removing the posts and banning the users who are making the offensive comments. However, another possibility is that users in the moderated website simply are not posting pro-suicide and non-civil/impolite responses to begin with. As discussed above, the decreased anonymity and increased status and authority of TeenLine Online could be preventing peers from making the comments.

Lastly, the two websites used vary by function. For example, TeenLine Online is used for the purpose of seeking health information pertaining to rape, suicide, cutting, mental health, etc. There are a few places to open general discussion or homework help, but the website primarily operates under the assumption that a user is there to seek support for a health issue. The Experience Project operates

under fewer restrictions. A user may go to the Experience Project to seek support or help for health

issues, but they may also go there to talk about virtually any experience. For example, a user could go to

the Experience Project and start a group on planting trees or join a group on fetal alcohol syndrome. The

possibilities are only limited by the experiences one has obtained in a lifetime. Therefore, the nature of

the websites could be a confounding variable, which is another reason why replication of the study is

essential to hold any generalizations.

CONCLUSION

This study found pro-suicide content as well as non-civil and impolite comments on both moderated and non-moderated websites. However, the frequency of pro-suicide content as well as non-civil and impolite comments was significantly less on the moderated website than that of the non-moderated website. Additionally, the types of pro-suicide content found on the websites differed with the only pro-suicide message on TeenLine Online being an expression of suicidal ideations without a support message. Multiple types of pro-suicide messages occurred on the Experience Project, including expressions of suicidal ideations without support messages, suicide pact messages, and persuasion of suicidal behavior. The types of non-civil and impolite comments on the websites also differed significantly, with the Experience Project containing at least one of each content category (i.e. name calling, stereotyping, aspersion, vulgarity, sarcasm, and hyperbole) and TeenLine Online only containing one sarcastic comment and no other non-civil or impolite responses.

This study reached the appropriate levels of significance to suggest that individuals posting suicidal ideations on the Experience Project are roughly 27 times more likely to experience non-civil or impolite responses than those who post suicidal ideations on TeenLine Online. Additionally, this study found that individuals posting suicidal ideations on the Experience Project are roughly four and half times more likely to experience pro-suicide response than those who post suicidal ideation on TeenLine Online.

The study also found that all three types of therapeutic responses (i.e. empowerment, interpretation, cognitive change inducement) occur on both the Experience Project and TeenLine Online. However, the frequency of therapeutic response is greater on the moderated website as the hypothesis predicted. The study reached the appropriate levels of significance to suggest that individuals

posting suicidal ideations to TeenLine Online are twice as likely to experience therapeutic responses than individuals posting suicidal ideations to the Experience Project.

The study outlines the potential problems with seeking help online during mental health crises. The data suggests the level of moderation a website provides has a huge impact on the type of support a suicidal individual receives. Additionally, the level of moderation could have a large impact on countering the toxic disinhibition effect. Essentially, picking the wrong website to seek help could have drastically negative consequences.

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Pro-Suicide Response Examples:

Advising

Telling or suggesting a peer commits suicide	Telling or suggesting a method of suicide a peer should use	Telling or suggesting a plan for a peer to commit suicide
"You should commit suicide"	"You should put a plastic bag over your head"	"You should wait until your parents are gone, sneak into your dad's closet, find his gun, and shot yourself"

Self-disclosing

Disclosing plans to commit suicide	Disclosing methods to commit suicide	Disclosing prior acts of suicide as a response without suicide support message	Disclosing suicidal ideations without suicide support message
"I am going to do it after school on Friday"	"I am going to use my dad's rope he uses for fishing to hang myself"	"I tried to hang myself a year ago today, ended up failing"	"I want to kill myself"

Persuasion

Presenting arguments that support suicidal behavior	Presenting arguments that support freedom of choice in one's death	Presenting arguments that support suicidal ideations
"If you follow through, you will never have to revisit those memories"	"It is your choice; don't let anyone tell you that you have to live with the pain"	If your life is that bad then it is normal to want to kill yourself"

Group suicide

Offering or suggesting a group suicide pact
"I will be in California in a week, do you want to meet up and do it together?"

Therapeutic Response Examples

Empowerment

Identify a peer's intelligence as a resource	Identify a peer's emotional strength as a resource	Identify a peer's resilience as a resource
"You are so smart; use that knowledge to make good decisions	"You never let people break you, you are so strong"	"You always bounce back from your problems"

Interpretation

Interpret psychological root of the suicidal ideation	Interpret social root of the suicidal ideation
"You do not believe in yourself and you are not aware of it"	Your friends need to respect your decisions"

Cognitive change inducement

Offer an alternative way of thinking during suicidal ideations
"Think of the best day of your life"

Non-therapeutic response examples

Emotional support

Expressing affection	Expressing empathy	Expressing agreement	Expressing congratulations
"I really like your personality"	"I understand; that must be really hard"	"You are right; your friends should not have treated you that way"	"You do a good job coping with your problems"

Offering group support

Expressing an invitation to join the group	Expressing an invitation to join the conversation
"I am glad you are here, please join the group"	"Feel free to share your thoughts"

Self-disclosure

Sharing one's own suicidal ideations with support message	Sharing one's past suicide-related experiences with support message	Sharing learned lessons regarding suicide
"I also want to die, but I am thankful to have this support system that helps me keep going; we are here for you too"	"I tried to kill myself last year, I am very thankful that it didn't work because everything has changed for the better shortly after"	"I have learned throughout the years to cope with my suicidal thoughts by indulging in a new hobby"

Persuasion

Presents arguments against suicidal behavior	Presents arguments against suicidal ideations	Presents arguments against freedom of choice in one's death
"If you kill yourself, your parents will be very sad"	"These thoughts are not conductive to changing your life"	"You do not have the right to kill yourself, it is illegal"

Advising

Offering directions as to what actions to take in order to alleviate suicidal ideations	Offering directions as to what actions to take to prevent suicidal ideations
"You should take a walk right now and clear your head"	"Next time you feel that way count to ten in your head"

Referring

Referring peer to a specific helpful website	Referring peer to a specific hotline	Referring peer to a specific online chat	Referring peer to a specific therapist	Referring peer to a specific online user within the group	Referring peer to a specific online user outside the group
"You should check out ReachOut.org"	"You should call the National Suicide Hotline"	"You should seek help from SuicideForum"	"You should check in with Dr. Johnson"	"You should ask Mike2002 what he thinks"	"You should find Jamz565, he is in self-harm group"

Sheet number:

Username:
Date of response:
Website:

Section One: Therapeutic responses

1. Empowerment
    1.1. Empowerment strategy used
    1.2. Empowerment strategy not used

2. Interpretation
    2.1. Interpretation strategy used
    2.2. Interpretation strategy not used

3. Cognitive change inducement
    3.1. Cognitive change inducement strategy used
    3.2. Cognitive change inducement strategy not used

4. Therapeutic response
    4.1. Therapeutic response strategy used
    4.2. Therapeutic response strategy not used

Section Two: Non-therapeutic responses

5. Emotional support
    5.1. Emotional support strategy used
    5.2. Emotional support strategy not used

6. Offering group support
    6.1. Offering group support strategy used
    6.2. Offering group support strategy not used

7. Self-disclosure
    7.1. Self-disclosure strategy used
    7.2. Self-disclosure strategy not used

8. Persuasion
    8.1. Persuasion strategy used
    8.2. Persuasion strategy not used

9. Advising
  9.1. Advising strategy used
  9.2. Advising strategy not used

10. Referring
  10.1 Referring strategy used
  10.2 Referring strategy not used

11. Non-therapeutic response
  11.1 Non-therapeutic response strategy used
  11.2 Non-therapeutic response strategy not used

Section Three: Pro-suicide response

12. Self-disclosure
  12.1 Self-disclosure strategy used
  12.2 Self-disclosure strategy not used

13. Advising
  13.1 Advising users to commit suicide strategy used
  13.2 Advising users to commit suicide strategy not used

14. Persuading
  14.1 Persuading users to commit suicide response strategy used
  14.2 Persuading users to commit suicide response strategy not used

15. Offering group suicide pact
  15.1 Offering group suicide pact response strategy used
  15.2 Offering group suicide pact response strategy not used

Section Four: Incivility and impoliteness

16. Stereotyping
  16.1 Stereotyping used within the response
  16.2 Stereotyping not used within the response

17. Name-calling
  17.1 Name-calling used within the response
  17.2 Name-calling not used within the response

18. Aspersion
  18.1 Aspersion used within the response
  18.2 Aspersion not used within the response

19. Vulgarity
  19.1 Vulgarity used within the response
  19.2 Vulgarity not used within the response

20. Hyperbole
    20.1 Hyperbole used within the response
    20.2 Hyperbole not used within the response

21. Sarcasm
    21.1 Sarcasm used within the response
    21.2 Sarcasm not used within the response