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The role of blogging across stages of change in recovery from anorexia nervosa

Sarah A. Kupper
Smith College

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ABSTRACT

This exploratory, mixed-methods study sought to understand how individuals at various stages of change in the recovery process from Anorexia Nervosa (AN) use blogging. The study also aimed to discover why these individuals begin blogging and the impact of this activity on the recovery process.

A total of 13 participants were included in the sample for this study. An internet survey measured bloggers' stage of change using the Anorexia Nervosa Stage of Change Questionnaire (ANSOCQ). Additionally, the survey contained open-ended, qualitative questions eliciting bloggers' reasons for beginning to blog, as well as how they perceived the influence of blogging on their recovery process. The study also included a content analysis of these individuals' blog posts to measure the presence and frequency of a number of elements, including the purpose of posts, themes in written content, photographs, and comments.

The findings of this study provide the first exploration of the characteristics of AN recovery blogs and how bloggers appear to be using this medium. Findings show significant differences in blog content depending on bloggers' stage of change. Bloggers also tend to present themselves at a higher stage of change on their blogs than through an anonymous survey. Bloggers unanimously perceive blogging as having a positive influence on recovery, though bloggers in earlier stages of change are more likely to also note negative aspects of the activity. Implications of these findings for practice and future research are discussed.

THE ROLE OF BLOGGING ACROSS STAGES OF CHANGE

IN RECOVERY FROM ANOREXIA NERVOSA

A project based upon an independent investigation,
submitted in partial fulfillment of the requirements
for the degree of Master of Social Work.

Sarah A. Kupper

Smith College School for Social Work
Northampton, Massachusetts 01063

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CHAPTER I

Introduction

As many as 11 million individuals suffer from eating disorders (EDs) in the United States (Hoek, 2006), and Anorexia Nervosa (AN) in particular, has the highest mortality rate of all psychiatric illnesses (Harris & Barraclough, 1998). AN is an ED characterized by extreme weight loss, amenorrhoea, fear of weight gain, and distorted body image, which affects all spheres of functioning.

Individuals struggling with EDs report a lack of social support in their lives (Rorty, Yager, Buckwalter, & Rossotto, 1999; Tiller, Sloane, Schmidt, & Troop, 1997). When social support is lacking, individuals often turn to the internet to connect with others struggling with similar problems and to gain support that they may be unable to get from offline relationships (Bargh & McKenna, 2004). Given the stigma associated with EDs and the secrecy many sufferers attempt to maintain, it is understandable that individuals with AN might turn to the internet, both for its anonymity and ability to provide social support.

One popular way of seeking and offering support online is through blogging, a phenomenon that has gained significant popularity over the past decade. A blog, short for weblog, is a personal webpage consisting of a series of entries or posts presented in reverse chronological order, often focusing on a particular theme, topic or interest (Kumar, Novak, Raghavan, & Tomkins, 2004). Bloggers produce their own creative material, frequently using their blog like an online journal or diary, but also engage in an interactive process with readers in

which they can receive feedback (Hollenbaugh, 2011; Nardi, Schiano, Gumbrecht, & Swartz, 2004). Blogging is becoming an increasingly popular way for individuals with health problems and illnesses to narrate and document their experience while also reaching out to others for support (Heilferty, 2009; Kim & Chung, 2007; Rains & Keating, 2011). For these reasons, individuals in recovery from EDs may be drawn to blogging.

Most recent research on the topic of the internet and EDs focuses on websites promoting EDs, while sites dedicated to recovery have received much less attention; we therefore know little about their effect and how they are used. Blogging about recovery from AN is a topic completely devoid of existing research and warrants exploration. Further research is needed to understand how individuals in recovery from AN use the internet, specifically blogging, in their recovery process, and whether it may be a beneficial adjunct to treatment. The purpose of this exploratory, mixed-methods study is to gain an understanding of the role of blogging in the recovery process from AN. Specifically, this study will explore why individuals with AN begin blogging, how they perceive its role in their recovery, and how their use of blogging changes over the course of the recovery process.

The findings of this study may have an impact on social work practice in that they could provide clinicians with a fuller understanding of how a new form of media is being used in the recovery process from AN, including how the internet can be differentially utilized based on stage of recovery. This knowledge will help clinicians assess clients' internet use and will allow them to provide their clients with useful tools for recovery. An understanding of the effects of blogging on ED recovery could have implications for the usefulness of this activity in recovery from other mental health problems as well. Finally, this study will add to the growing body of knowledge on what it means to recover from an ED from the perspective of survivors.

CHAPTER II

Literature Review

While little research exists on the use of blogging in ED recovery, some inferences can be drawn from other areas of literature. Since blogging is a form of self-help, this chapter begins with a broad exploration of self-help, and how it has been adapted to the internet for a variety of problems. The study of self-help support resources on the internet, including blogging, provides insight into reasons why individuals utilize these forms of media and the effect of this use. The interaction between EDs and the internet will be explored, especially the use of websites dedicated to recovery, and the concern over websites that may promote EDs. Expressive writing and social support, both elements at the core of blogging, will be examined through the literature and applied to EDs. Finally, a model explaining the recovery process from EDs will frame this study's exploration into the role of blogging in EDs.

The Internet as a Resource for Self-Help

Online self-help resources have their origins in traditional self-help organizations, such as Alcoholics Anonymous, the oldest and largest self-help group. In these self-help organizations, "members participate with the expectation of receiving emotional support, sharing personal experiences, and finding new ways to help themselves cope with their shared problems" (King & Moreggi, 1998, p. 83). Self-help groups allow members to feel that they are not alone in their suffering and experiences with their problems. Instead of being led by a mental health professional, the groups are peer-led, giving members autonomy, control, and the ability to feel

that they are experts on their own problems. Self-help groups are also referred to as mutual aid or mutual help groups; the latter terms highlight the therapeutic value in group members' ability to be both a helper and helpee (King & Moreggi, 1998). The groups can be used as both an alternative and adjunct to traditional psychotherapy.

The self-help movement has grown enormously in the last few decades, in large part due to dissatisfaction with the traditional medical model for treating addictions and mental health issues (King & Moreggi, 1998). These groups now exist for a wide range of issues including mental illness. With the use of the internet growing ever wider, countless self-help resources and groups have also surfaced online. For individuals who do not have access to in-person support groups, online self-help can provide an alternative for finding social connection, specifically with others suffering with similar problems (White & Dorman, 2001).

Online self-help can be found in many forms, including message boards or forums, chat rooms, mailing lists and blogs. A number of advantages of online self-help support groups have been described in the literature. The unique benefits include group members' ability to send or receive messages at any time of day or night, as well as their ability to carefully consider and develop their messages before sharing with the group. Online support groups may also be composed of a more varied range of individuals offering more diverse perspectives, experiences, and information than might be found in face to face support groups (White & Dorman, 2001). Online support often serves as an adjunct to traditional support groups in addition to other forms of treatment, including individual psychotherapy (Finn, 1995), and also has the potential to provide referrals to treatment.

Davidson, Pennebaker, and Dickerson (2000) investigated internet and face to face self-help group participation by individuals diagnosed with a variety of physical and mental

disorders. By observing the internet activity of online self-help groups, the authors found that

the disorders with the highest level of online activity were multiple sclerosis, chronic fatigue

syndrome, breast cancer, and anorexia. A number of other studies have found the internet to be

especially supportive and helpful for users of self-help groups with a variety of different

conditions and concerns including: depression (Houston, Cooper & Ford, 2002; Wright, 2000),

suicidality (Miller & Gergen, 1998), HIV (Reeves, 2000), disability (Braithwaite, Waldron, &

Finn, 1999), cancer (Fernsler & Manchester, 1997), sexuality and relationships (Suzuki & Calzo,

2004), and Alzheimer's disease (White & Dorman, 2000).

Virtual support can be attractive to those whose disability impairs mobility, and to those

with rare conditions, who cannot easily find others to interact with in person. Online forums

may also be more prevalent for conditions that are "poorly understood and somewhat overlooked

by the medical community" (Davidson et al., 2000, p. 214). Furthermore, "having an illness that

is embarrassing, socially stigmatizing, or disfiguring leads people to seek the support of others

with similar conditions" (Davidson et al., 2000, p. 213). Even when face to face support groups

are available, certain individuals may chose not to participate due to anxiety around revealing a

stigmatized condition or experience. Due to the devaluation, rejection or avoidance these

individuals often experience from others when they share their stigmatized condition, they may

deny themselves the benefits of social support. However, when one is able to maintain

anonymity, revealing a stigmatized condition to others may be extremely beneficial (Smart &

Wegner, 2000). Having the ability to discuss sensitive information without anxiety about the

social risks of revealing potentially embarrassing information may greatly benefit those with

stigmatized conditions (Caplan & Turner, 2007; White & Dorman, 2001).

Walther and Parks (2002) state that, "the internet must be judged as a fabulously successful medium for social support. Understanding, reassurance, and advice flow out from literally thousands of online support groups" (p. 545). Those who communicate with others in virtual communities often find these online relationships to be very personal and powerful (Rheingold, 1993). Winzelberg (1997) explained that electronic support groups offer individuals the opportunity to form relationships, communicate regularly, and provide information and support to each other. The author found that members of an online ED support group used similar helping strategies to those found in face-to-face support groups, including the provision of emotional support, information, and feedback. Group members with longer periods of recovery served as role models and offered suggestions for coping.

In spite of these advantages to online self-help, some potential drawbacks have also been identified. Some scholars have argued that online communication is more impersonal and incomplete due to the lack of non-verbal cues and physical contact between individuals online. There is also the potential for uninhibited, aggressive and socially inappropriate remarks, also referred to as "flaming" (Finfgeld, 2000). Despite these concerns, most studies have supported the assertion that the internet is a unique and positive space for connection, relationship building, and social support (Bargh & McKenna, 2004).

The Use of Blogs

Most research on online self-help support groups has focused on discussion forums, email lists, and chat rooms. As blogging is a newer internet medium, the literature on blogs as a self-help support resource is not as robust. However, existing studies on the topic show a great deal of promise in terms of the benefits one can gain from blogging.

A blog is a personal webpage consisting of a series of entries or posts presented in reverse chronological order, often focusing on a particular theme, topic or interest (Kumar et al., 2004). Blogs are usually written by one person and are updated fairly regularly. Blog posts are archived or saved so that anyone who visits the blog can see the progression of blog posts from the present back to the blog's beginning. These posts most often include written text, but can also be composed of pictures, videos, links to other websites, and other media. The posts can be commented upon by those who visit the blog, though the blog author has the ability to moderate or screen these comments if desired. A blog will often contain a list of links to other blogs, called a "blogroll," which further connects bloggers into online communities. Blog communities have developed around many different topics, allowing people to learn, share ideas, and connect with others who have similar interests from around the world.

Characteristics of bloggers. Blogs have grown a great deal in popularity due to the present ease with which anyone can create their own blog. A survey of internet users found that 14% of teens, 15% of young adults, and 11% of adults over 30 in the United States maintain blogs. Blogging is equally common across gender, race, income and education level (Lenhart, Purcell, Smith, & Zickuhr, 2010). In a cross-sectional study examining motives for blogging, Hollenbaugh (2011) found that the most common reasons for blogging were archiving and organizing thoughts and ideas, helping and informing others, establishing and maintaining social connection, and eliciting feedback and advice from others. By conducting in-depth interviews of bloggers, Nardi et al. (2004) found similar motivations for blogging, including documenting one's life, providing commentary and opinions, expressing deeply felt emotions, articulating ideas through writing, and forming and maintaining community forums. These studies illuminate the unique nature of the blog, where bloggers produce their own creative material,

often using their blog like an online journal or diary, but also engage in an interactive process with readers in which they can receive feedback.

Certain personality traits have been found to predict blogging, including neuroticism and openness to new experience (Guadagno, Okdie, & Eno, 2008). Individuals who are high in neuroticism, characterized by anxiety, worry, emotional reactivity and nervousness, may blog to cope with loneliness or in an attempt to reach out and connect with others. In another study, new Myspace users were surveyed about their intent to blog and several psychosocial variables. Researchers found that individuals intending to blog showed greater levels of psychological distress than non-bloggers, with higher levels of depression, anxiety and stress. They were also more likely to use venting and self-blame to cope with stress. Intending bloggers were also less satisfied with their number of online and offline friends compared to non-bloggers (Baker & Moore, 2008).

Blogging about health, illness and recovery. An AOL survey of bloggers indicated that nearly 50% of bloggers use their blogs as a form of "self-therapy" (AOL Survey, 2005). It is therefore important to consider the therapeutic implications of this activity. Blogging has become an increasingly popular means of expression during the experience of illness, though the literature has just begun to explore this topic (Heilferty, 2009; Kim & Chung, 2007; Rains & Keating, 2011). While discussion forums, email lists, and chat rooms have been shown to provide individuals living with various illnesses the chance to connect to others who share their experience, "some patients prefer the unique forum for self-expression, the illness blog, where thoughts, creativity, feelings and information can be shared" (Heilferty, 2009, p. 1540). Kim and Chung (2007) found that individuals with cancer tend to blog to share emotional support and personal stories, rather than medical knowledge. The authors conclude that cancer patients

engage in meaningful conversations through their blogging, and that sharing personal experiences through blogging may help patients better cope with their illnesses.

In an analysis of the features of health-focused blogs, researchers found typical elements of blogging such as internal and external links, archives, blogrolls, and comment sections. Health blogs tended to feature less audio or video content than other blogs, and tended to be composed of mostly text. Most health blogs were personal rather than informational, emphasizing the journaling aspect of blogging in which bloggers share their personal experiences with others (Miller & Pole, 2010).

One of the only studies conducted on the impact of blogging on mental health recovery examined whether blogging about traumatic events was associated with linguistic changes, as well as what factors might increase the likelihood of these changes (Hoyt & Pasupathi, 2008). The authors suggest that certain linguistic changes are markers of recovery from trauma; words indicating cognitive processing, positive versus negative emotion, and plural versus singular pronouns used in self-reference. Overall, linguistic markers of recovery did not increase over the course of blog entries for most bloggers, though particular individuals who did show changes in word use were more likely to be classified as "recovered," based on qualitative analysis of blog posts. The authors also noticed that blogs of those deemed to be recovered had less frequent blog posts; therefore, it was thought that more effective recovery might be facilitated by less frequent blogging. However, it is impossible to determine causality from this study's methodology, and the finding is further weakened by additional methodological limitations. The types of traumatic events experienced by participants were limited by specific search strings (rape, accident, Iraq, Katrina, cancer), and it is not clear whether the inherent differences between types of trauma was considered. It is also not clear that the content of blog entries

actually involved the trauma, and therefore, it is difficult to know whether the blog postings can actually be classified as therapeutic writing. Also, the context of linguistic markers was not examined, which may have been especially problematic around the singular/plural pronouns, as "I statements" may have been signs of empowerment and meaning making, rather than signs of isolation and self-blame. Lastly, there was no rationale or justification for which particular blog characteristics were examined for correlation with linguistic markers. Further research is clearly needed to assess whether blogging yields some of the same benefits as therapeutic writing, and whether it promotes recovery from trauma.

Implications. Individuals with AN and Bulimia Nervosa (BN) tend to score low on measures of well-being, social closeness, and positive affectivity, and have high scores on stress reaction, alienation and negative affectivity (Pryor & Wiederman, 1996). In other words, these individuals tend to feel little joy or excitement in their lives, experience excessive worry, irritability and emotional lability, mistrust, social isolation, feelings of being mistreated by others, and a preference for working problems out by oneself. It seems likely that individuals in recovery from EDs would both be drawn to blogging as a medium for expression and social connection, and could potentially benefit from this activity.

Eating Disorders and the Internet

Most of the research over the past decade on the internet and EDs has focused on the websites that promote ED behavior, and their detrimental effects. Pro-anorexia or "pro-ana" sites, for example, often display pictures of emaciated models, tips for dieting, and how to hide weight loss from parents or doctors. In general, these sites promote the belief that AN is a legitimate alternative lifestyle that individuals choose to have, rather than an illness they cannot control (Harper, Sperry, & Thompson, 2008). For participants in pro-ana sites, AN represents

stability and control, and these sites offer support and guidance for maintaining AN (Fox, Ward, & O'Rourke, 2005).

Pro-ED sites also provide a sense of community through interactive message boards and chat rooms. Paxton, Schutz, Wertheim, and Muir (1999) compared this community to a clique, a type of social interaction shown to have a negative impact on body image and disordered eating in adolescents. Another perspective is that these communities are actually therapeutic for those not ready for therapy, or those who feel rejected by the medical community, by providing individuals with a supportive, anonymous space in which to express themselves (Dias, 2003). Nevertheless, many believe that these sites can trigger those with disordered eating to develop a full clinical ED, and serve as a damaging influence on the recovery process.

Much less research has been performed on websites dedicated to ED recovery. These sites range from closed forums moderated by healthcare professionals, to those which are completely peer facilitated. The latter often maintain integrity through peer moderation and rules, which may include banning descriptions of weight and any material that encourages EDs or could be triggering (Riley, Rodham, & Gavin, 2009). One of the critiques of in-person therapy groups for individuals with AN is that they carry the danger of creating an environment in which participants compare their appearance and behaviors to others in the group and compete to be the thinnest (Rich, 2006). Online support groups may reduce this competitiveness as long as weight, photos and triggering behavior are not shared.

Existing research suggests that a desire for social support is a significant motivator for visiting recovery-oriented sites. Mulè and Sideli (2009) found through literature review that, like pro-ED website users, pro-recovery visitors have a similar need for sharing and understanding, and often feel that the virtual forum is more supportive than traditional therapy. Eichhorn (2008)

found that most of the messages communicated on an online ED discussion board either provided social support or elicited it, suggesting that a prosocial communication process is occurring on these sites. Another study, which surveyed adolescents, found that those who visit pro-recovery sites do so for support and to meet others with EDs, while the majority of adolescents who visit pro-ED sites are looking to maintain their motivation for weight loss, and name social support as only a secondary goal (Wilson, Peebles, Hardy, & Litt, 2006).

There are also findings that ED sites focused on recovery may actually promote EDs as well. One of the few investigations measuring the relationship between viewing these sites and eating disturbances was that of Wilson et al. (2006), who compared adolescents who visited pro-ED sites to those who visited pro-recovery sites. This study found that almost all of the adolescents who viewed the pro-ED sites learned new weight loss and purging methods, and notably, almost half of those who visited pro-recovery sites also said they learned about such strategies. However, there was overlap among the groups with a significant portion of patients viewing both the pro-ED and recovery sites. When pure groups of viewers were created, sample sizes were too small for effective data analysis. A major limitation to this study was its low response rate.

Additional research found inconclusive data on the helpfulness of websites dedicated to recovery from EDs. Riley et al. (2009) compared a pro-ana internet discussion forum to one dedicated to recovery. The authors found that while the recovery discussion site worked to problematize EDs, conversations on it did not challenge the thin ideal, and issues of eating and weight management were common on this site. The quality of information on pro-recovery sites has been called into question as well (Mulè & Sideli, 2009; Murphy, Frost, Webster, & Schmidt, 2004). Murphy et al. (2004) determined that the content displayed on 15 pro-recovery websites

was of "generally poor quality;" however, quality was assessed solely using a 78-item rating scale developed from the APA evidence-based clinical practice guidelines on EDs. The authors noted that there was a need to investigate users' views on the quality of information on these sites, which may not correspond to "conventional" standards of quality. In both of these studies, the quality of pro-recovery websites were determined by the researchers, not by the actual users of the websites, signaling a need for research on how the actual users define quality and the ways in which they find these sites useful or not. Also, in spite of evidence that individuals most often visit pro-recovery websites seeking social support, no research exists on the availability or quality of such support.

Social Support

Similar to online discussion forums, chat rooms, and email lists, blogs serve as sources of non-professional social support. Social support has been shown to protect individuals from negative psychological consequences of life stress. Cohen and Wills (1985) first tested this hypothesis by reviewing more than 40 correlational studies on the topic. They came to the conclusion that the mental and physical impact of life's stressful events are buffered by one's degree of social support, and specifically by the perceived availability of this support. Additionally, the presence of social support and perceived availability of social support are associated with increased wellbeing and the ability to cope with adversity (Schaefer, Coyne, & Lazarus, 1981). Albrect and Goldsmith (2003) support these claims with the assertion that social support is a form of communication that helps one manage uncertainty and increases perceptions of control over one's life.

Research shows that individuals suffering from EDs report a lack of social support in their lives (Tiller et al., 1997; Rorty et al., 1999). Supportive relationships, especially outside the

kinship system, are considered to be the driving forces in recovery, according to individuals in recovery from AN and BN (Rorty et al., 1999; Tozzi, Sullivan, Fear, McKenzie, & Bulik, 2003). In exploring the factors contributing to recovery in women with BN, Rorty, Yager, and Rossoto (1993) discovered that nonprofessional contacts, such as support groups of various kinds, are important components of the healing process for many of these women. Members of online ED forums perceive less support in their important offline relationships than their non-eating disordered peers do, and they seek out and participate in forums as a means of attaining greater social support (Ransom, La Guardia, Woody, & Boyd, 2010).

In a recent study investigating social support and blogging, Rains and Keating (2011) surveyed 121 authors of health related blogs, and found that blogs represent a novel resource for receiving social support. The physical and mental health conditions respondents reported blogging about included: Alzheimer's disease, Asperger's syndrome, bipolar disorder, cancer, EDs, fibromyalgia, depression, HIV, lupus, Lyme disease, multiple sclerosis, Parkinson's disease, rheumatoid arthritis, traumatic brain injury and Type 1 diabetes. Respondents who blogged more frequently reported greater levels of social support available from readers. Additionally, blog reader support was positively associated with bloggers' perceptions of their own health-related self-efficacy. Another important finding was that, when the support of family and friends was lacking, the support of blog readers was negatively associated with loneliness and positively associated with personal growth. Health blogging appeared to benefit individuals who were most in need of support by providing access to support resources and promoting well-being.

Therapeutic Writing

Although there is currently no research on blogging in relation to EDs, there is reason to believe that it may be a beneficial adjunct to treatment for certain individuals in recovery, due to the similarity between blogging and therapeutic writing. Indeed, blogging produces writing similar to the journaling typically studied in therapeutic writing research. Numerous studies of diverse populations have shown that people who write about emotionally significant experiences for 15–20 minutes per day over consecutive days demonstrate a range of physiological and psychosocial benefits (Pennebaker & Graybeal, 2001). Expressive writing interventions have been shown to be beneficial in physically and psychologically ill individuals (Frisina, Borod, & Lepore, 2004), and therapeutic writing may offer significant benefits to those with EDs, especially AN, due to its potential to address the cognitive, affective, and interpersonal aspects of the disorder (Schmidt, Bone, Hems, Lessem, & Treasure, 2002; Schmidt & Treasure, 2006).

It tends to be especially difficult for individuals with AN to verbally express their emotions (Geller, Cockell, Hewitt, Goldner, & Flett, 2000); therefore, expressive writing, which allows the disinhibition of thoughts and emotions, may be particularly beneficial (Pennebaker, 1989). Expressive writing also promotes exposure to previously avoided thoughts, memories and emotions (Lepore, Greenberg, Bruno, & Smyth, 2002), which may be especially helpful, as individuals with AN have been found to be experientially avoidant, often suppressing distressing affect or personal experiences. Because a blog offers an ideal space for an individual's personal narrative to unfold through expressive writing, it seems likely that blogging would be beneficial for individuals in recovery from AN.

It is important to note, however, that the two practices are not identical: while a personal journal is private to the author, a blog is public and invites visitors to comment on posts, opening

the channels for social connection. The combination of therapeutic writing and social support may serve to enhance a blog's therapeutic potential: in several studies, online support group members have reported a sense of catharsis after sending messages to their respective groups, pointing to the therapeutic value of typing one's thoughts and feelings to a supportive audience (Finn, 1995; Miller & Gergen, 1998).

Eating Disorder Recovery

It is important to consider how an individual's use of blogging might change over the course of their recovery process from an ED. The definition of 'recovery' from EDs has evolved from a sole focus on physical criteria such as weight, to the inclusion of behavioral measures such as the absence of restriction, binge eating and purging, and finally, the incorporation of psychological aspects of EDs including body image and fear of weight gain (Couturier & Lock, 2006; Keel, Dorer, Franko, Jackson, & Herzog, 2005).

Treating individuals with EDs has been considered very difficult because many patients with EDs, AN in particular, do not regard themselves as having a problem, and therefore lack motivation to change. The Transtheoretical Model of Change, or Stages of Change Model, suggests that individuals move through a number of stages in the recovery process. This model was originally developed to explain the process of smoking cessation (DiClemente & Prochaska,1982), but has been applied to many other behaviors including exercise habits (Spencer, Adams, Malone, Roy, & Yost, 2006), domestic violence (Scott & Wolfe, 2003), sexually transmitted diseases (STD) and/or pregnancy prevention (Horowitz, 2003), cancer screening behavior (Spencer, Pagell, & Adams, 2005), and addictive substances (Migneault, Adams, & Read, 2005). This model proposes five stages of change: precontemplation (not recognizing a problem or considering change); contemplation (awareness of the existence of a

problem, but ambivalence about change); determination/preparation (commitment to making a change); action (active involvement in making the change); and maintenance (sustained change). Individuals may proceed through the stages in a linear fashion or they may relapse and cycle through in a non-linear fashion several times before achieving long term maintenance (Prochaska, DiCelemente, & Norcross, 1992).

The Stages of Change Model has been applied to EDs in a number of studies. Rieger et al. (2000) designed an instrument to assess motivation and readiness to recover specifically in individuals with AN called the Anorexia Nervosa Stages of Change Questionnaire (ANSOCQ). The authors tested this instrument in a sample of adult inpatients with AN and found that readiness to recover at the start of treatment predicted weight recovery at follow-up. Several other studies that have used this instrument have shown that individuals with higher levels of motivation are less likely to be hospitalized (Ametller, Castro, Serrano, Martinez, & Toro, 2005), and display greater reductions in eating pathology (Wade, Frayne, Edwards, Robertson, & Gilchrist, 2009). Touyz, Thornton, Rieger, George, and Beumont (2003) described the need for specialized day treatment programs designed to target individuals at different stages of change and proposed examples of such programs. Preliminary evidence supports motivational interviewing as an effective treatment in increasing levels of motivation in individuals with AN (Wade et al., 2009).

Keski-Rahkonen and Tozzi (2005) used this stages of change model to analyze how members of an online ED discussion forum define recovery and move through stages of change. These authors included an additional category, transcendence, which is sometimes added to the model to describe individuals who have moved on from the problem behavior and into a new stage in their lives. This study found that the contemplation stage was associated with postings

expressing ambivalence towards recovery, abstract wishes to recovery, and external motivators. The determination stage postings emphasized motivation for recovery and help seeking but without concrete actions towards recovery. Action and maintenance were grouped together and included individuals who were struggling to tolerate weight gain or counting days since they last purged. Relapses were infrequently mentioned as occurring at the present time or recently, but individuals were able to reflect on past relapses. The transcendence category was characterized by successful recovery, gaining distance from the ED, and searching for meaning. Many individuals in this stage narrated their "eating disorder career," reflecting on their struggles and offering advice on recovery to others in the forum. The stories of recovery from former ED sufferers appeared to be quite helpful to other group members.

One of the most notable conclusions of this study was that the internet discussion group appeared to be helpful in the early stages of recovery and change, but hindered recovery in the later stages (Keski-Rahkonen & Tozzi, 2005). It is possible that blogging may also be more or less beneficial depending on where one is in the recovery process from an ED. However, such a conclusion cannot be made with any certainty due to significant limitations to this study's methodology. Both participants' stage of change, and the influence of the discussion group, were assessed only via researchers' classification of statements that included the word "recovery." The finding that the discussion group was less helpful later in recovery is based on only eight comments. Furthermore, the generalizability of these results is limited, as the study only sampled one site, a Finnish-language discussion group maintained by a private clinic offering various health-related discussion forums. Further research is clearly needed to determine if more objective measures would result in the same conclusions, whether the findings would generalize, and if so, why an online forum of this kind would be more helpful in

the early stages of recovery and less so in later stages.

Summary

In synopsis, blogging about recovery from EDs is a topic completely devoid of existing research and warrants exploration. Most recent research on the topic of the internet and EDs focuses on pro-ED websites, while sites dedicated to recovery have received much less attention, and we therefore know little about their effect and how they are used. Further research is needed to understand how individuals in recovery from AN use the internet, specifically blogging, in their recovery process.

Individuals with EDs benefit from expressive writing and increased social support, both of which can be obtained through the medium of blogging. Blogging is becoming an increasingly popular way for individuals with health problems and illnesses to narrate and document their experience while also reaching out to others for support. It follows that individuals in recovery from EDs would be drawn to blogging, and that it may be a beneficial adjunct to treatment. As individuals in recovery from EDs progress through multiple stages in the recovery process, it is also important to consider whether the usefulness of blogging depends on one's stage of recovery. The current study will explore how individuals at different stages in the recovery process from AN use blogging to document and share their experience, and the impact of blogging on one's recovery.

CHAPTER III

Methodology

The purpose of this exploratory study was to gain an understanding of the role of blogging in the recovery process from AN. As the literature review revealed, this relatively new phenomenon of blogging has not been studied in the context of EDs, and therefore an exploratory approach was most appropriate for the current study. This study aimed to discover how survivors of AN use blogging in their recovery, and if this use changes over the course of the recovery process. The study also sought to understand why these individuals begin blogging and the impact of this activity on the recovery process.

In order to obtain as full an understanding as possible of the blogging experience in recovery from AN, this study employed both a questionnaire completed by bloggers, and a content analysis of their blogs performed by the researcher. The mixed-methods questionnaire gathered both quantitative and qualitative information about bloggers' stage of recovery, as well as their experience of blogging in their own words. The qualitative content analysis of blog material allowed this researcher to observe first-hand how bloggers use their blogs to document their recovery process.

Sample

To be eligible for the study, participants must have had a personal blog (unaffiliated with a larger organization) that was written in English, included AN recovery in its description, included the blogger's email address, and had a minimum of 7 posts, at least 2 of which were

from the month prior to data collection to ensure that the blog was still active. Eligible

participants were 18 or older, and reported being "recovered" or "in recovery" from AN.

Participation was not limited based on race/ethnicity, gender, age, or other demographics. Since

it was not always possible to determine bloggers' demographic characteristics from their blogs, it

was not possible to recruit specifically for diversity. The final sample size was 13 participants.

Recruitment

A purposive, non-probability sampling method was used to recruit the sample for this

study. Potential blogs were identified through Google Blog Search using the key words:

"anorexia recovery," "anorexia," and "eating disorder recovery." The blogs were then reviewed

for the inclusion criteria. Snowball sampling was also employed by reviewing the related blogs

listed on each identified blog's "blogroll" (a list of websites a blogger recommends on their blog)

for inclusion criteria. This search was completed during a limited time frame, from 3/15/2012 to

3/17/2012, due to the fluid nature of internet content. The search yielded 41 blogs that met

eligibility criteria, and these bloggers were sent the recruitment email (Appendix A) inviting

them to click on a link for more information or to participate.

Ethics and Safeguards

The current study was approved by the Human Subjects Review (HSR) board at Smith

School for Social Work to certify that all efforts were made to maintain confidentiality and

minimize the risks to participants (Appendix B). Participation was voluntary, and all participants

agreed to the Informed Consent (Appendix C). Minimal risk from participation in this study was

anticipated. Because bloggers had been writing about ED recovery on their blogs, it was

unlikely that they would experience distress from completing a questionnaire on their recovery

process and how blogging has factored into it. However, in case this was triggering for

individuals, especially those who may have recently relapsed or were struggling in the early stages of recovery, a list of referral sources (Appendix D) was included with the informed consent for all participants in case further help was needed. Participants may have benefitted from the opportunity to share their experiences, by gaining new insight and perspective into their recovery process, blogging behavior, and how these intersect. Participants may also have benefitted from the awareness that they were contributing to the development of knowledge that could increase understanding and help others suffering from EDs.

All possible precautions were taken to maintain confidentiality and safeguard identifiable information. Participants' names and locations were not asked or included, and their email and IP addresses were not tracked or made available by Survey Monkey. However, participants were asked to list the URL of their blog at the start of the survey so that the survey results could be connected with blog content; once the data were linked, the blog name was deleted from both so that the results were no longer identifiable. Data prepared for publication or presentation was presented in the aggregate, and illustrative quotes were carefully disguised. All data, notes and consent forms will be kept in a password-protected file for a period of three years as required by federal guidelines, after which time they will be destroyed, or continue to be maintained securely if still needed. Once no longer needed, data will be destroyed.

Data Collection

The data for this research study were collected through the use of an online survey of bloggers as well as a content analysis of blog posts. The anonymous, online survey was constructed and managed using the Survey Monkey online program (www.surveymonkey.com). The questionnaire consisted of three sections with a combination of multiple choice, likert scale, and open-ended questions (see Appendix E).

The first question on the survey asked participants to list the URL of their blog so that the survey results could be connected with blog content analysis; however, once the data were linked, the blog name was deleted from both so that the results were no longer identifiable. Following this initial question, the first section of the survey consisted of a series of demographic questions including age, gender, race/ethnicity, and education. This section of the survey also inquired about types of treatment participants had received as well as length of time since treatment. The next section of the survey consisted of the Anorexia Nervosa Stage of Change Questionnaire (Rieger, Touyz, & Beumont, 2002). This instrument is comprised of 20 multiple choice questions and was developed to assess whether patients are in precontemplation, contemplation, preparation, action or maintenance stage of change in terms of their readiness to recover from AN. For the current study, minor changes were made to several questions so that participants would not be asked to list any specific weight numbers as part of the survey, as this can be triggering for many individuals in recovery from EDs. The last section of the survey included a few questions inquiring about reasons why participants started blogging, and the degree to which they perceived it as helpful or harmful in their recovery. Qualitative data were obtained in this section through comment/text boxes allowing participants to more fully describe their experience of blogging.

A qualitative analysis of blog content was conducted by recording the type and frequency of various elements in blog postings including photographs, themes in text, and comments. A subset of 12 posts over the past three months on each blog was selected for analysis, including the most recent 7 posts, each from a different day of the week, and the remaining posts (up to 5) selected with a random number generator. The blog posts were selected via stratified sampling to include posts from each day of the week, since prior research suggests that bloggers may post

different types of materials on different days of the week. Because the blogs sampled had been in existence for varying periods of time and bloggers posted at different frequencies, the number of posts analyzed per blog also varied from 9 - 12, with a mean of 11.6.

To link a blogger's website content to their survey results while maintaining anonymity, a random unique number or code was assigned to each blog/survey set. The content analysis of the blogs was conducted before viewing the survey results to protect the objectivity of the content analysis.

Data Analysis

The Survey Monkey online program was used to gather the data, which were then electronically coded, and analyzed by the researcher with the Statistical Package for Social Sciences (SPSS) Software. The ANSOCQ was scored manually and descriptive statistics were calculated for demographics. A thematic analysis of qualitative survey questions was performed and frequencies calculated for each identified theme. For the blog content analysis, the frequencies for each blog content variable were calculated and thematic analyses were conducted for each. The qualitative data gathered from the survey and blog content was then rank-ordered based on the participant's ANSOCQ scores, and patterns of variation based on stage of change were analyzed. Correlation coefficients were also calculated on the ANSOCQ scores, descriptive statistics, and frequency scores.

CHAPTER IV

Findings

This mixed-methods study explored the relationship between current stage of change in AN recovery, as measured by a quantitative internet questionnaire, and blog content assessed via a qualitative content analysis of blog posts. The study aimed to determine whether stage of change is reflected in the content of AN recovery-focused blogs. The study also sought to understand why survivors of AN begin blogging and how they perceive the role of blogging in their recovery process, assessed through open-ended questions included as part of the internet questionnaire.

Demographics

Twenty-six people responded to recruitment efforts. Of these respondents, 10 were excluded because they submitted incomplete surveys. Sixteen respondents submitted complete surveys, but 3 were excluded from the sample because their blogs did not fully meet inclusion criteria. The remaining 13 respondents were included in the sample for data analysis.

The 13 participants ranged in age from 18 to 31 years of age with a mean age of 24. The sample was homogeneous in terms of gender and race/ethnicity: all participants identified as female and White/Caucasian. In terms of education, 6 participants had completed some college, 4 had completed a master's degree, 1 completed an undergraduate degree, 1 completed high school/GED, and 1 had completed some high school.

All 13 participants (100%) have received outpatient treatment (e.g., individual counseling, nutrition and medical appointments), 10 currently, 2 within the past year, and 1 between 2-4 years ago. Six of the participants (46.2%) have received treatment at a partial hospitalization/day treatment program, 1 currently, 2 within the past year, and 3 between 2-4 years ago. Six of the participants (46.2%) have received residential treatment, 1 currently, 3 within the past year, 2 between 2-4 years ago, and 1 over 4 years ago. Six of the participants (46.2%) have had inpatient hospitalizations, 3 within the past year, 2 between 2-4 years ago, and 3 over 4 years ago.

Stage of Change

Participants' stage of change was assessed based on their responses to the Anorexia Nervosa Stage of Change Questionnaire (ANSOCQ). There were no scores in the precontemplation stage. Two participants (15.4%) had scores in the contemplation stage, 2 (15.4%) in the preparation stage, 5 (38.5%) in the action stage, and 4 (30.8%) in the maintenance stage (see Table 1). Participants' stage of change was also independently gauged through content analysis of blog posts. This analysis involved rating each blog post with a score of 1 (precontemplation) through 5 (maintenance), based on the following markers for stage of change: a blog post was given a score of 1 if no motivation towards recovery was expressed, 2 if there was ambivalence towards recovery, 3 for motivation towards recovery without action, 4 for taking action towards recovery, and 5 for working to maintain recovery. A score was not given if the blog post contained insufficient information to assess stage of change. An average stage of change score was then calculated for each blog. Through this analysis, no bloggers scored in the precontemplation or contemplation stages. One participant (7.69%) scored in the preparation stage, 4 (30.8%) in the action stage, and 8 (61.5%) in the maintenance stage.

A Pearson's Correlation Coefficient was used to determine the relationship between stage of change measured by the ANSOCQ and stage of change measured by analysis of blog content. A significant positive correlation was found between the two ($r(13) = .779$, $p = .002$). However, almost all participants' stage of change scores were higher when determined by analysis of their blog content as opposed to by ANSOCQ, with only one participant receiving the same score through both survey and content analysis. On average, participants' stage of change was .63 points higher when determined by blog content than when determined by ANSOCQ. Additionally, a greater difference between stage of change scores was seen for those bloggers in the earlier stages of change. There was a significant negative correlation between stage of change and difference between stage of change scores ($r(13) = -.773$, $p = .002$).

Table 1

Comparison of Stage of Change Scores

	ANSOCQ Score	Content Analysis SOC	Difference
1	2.25	3.3	1.05
2	2.4	4.4	2
3	2.95	4	1.05
4	3.25	4	.75
5	3.6	3.6	0
6	3.9	5	1.1
7	4	4.5	0.5
8	4.3	4.6	0.3
9	4.4	4.6	0.2
10	4.5	4.9	0.4
11	4.5	5	0.5
12	4.75	5	.25
13	4.85	4.9	.05

Blog Content Analysis

Blog posts were sampled for content analysis by choosing 12 posts over the past three months for each blog. Since the number of posts per blog exceeded 12 for most blogs, stratified

sampling was used to select a post from each day of the week, and a random number generator

was used to select the remaining posts. Two blogs within the sample had less than 12 posts

during the 3 month period; therefore, only the existing posts were sampled (9 and 10 posts). The

average number of posts analyzed per blog was 11.6 and a total of 151 blog posts over 13 blogs

were analyzed.

Photographs

The number of photographs in each blog post was counted, totaled for each blog, and the

average per blog post calculated. Photographs appeared on most blogs with the average number

of photographs per blog post ranging from 0 to 9.33, with a mean of 2.77 (see Table 2).

Photographs were then categorized based on their content, though each photograph could

represent more than one category. Each post was analyzed for photographs consistent with one

or more of the following categories: photographs of people (the author, accentuating thinness,

focused on health, accentuating overweight); photographs of food (health food, junk food,

normalized meals, ritualized, other); and photographs unrelated to food or appearance.

Photographs of food were rated as "ritualized" if they showed rigid food choices, patterns,

unusual cutting/biting/counting/pulling apart behavior, or strange food combinations.

Photographs unrelated to food or appearance were the most common type of photograph,

making up 47.2% (1.3) of the average photographs per blog post. Photographs of people

comprised 26.0% (0.7) of the average photographs per blog post with photographs of the author

making up 18.4% (0.5). Photographs of people focused on health comprised 3.9% (0.1) and

photographs of people accentuating thinness comprised 2.9% (0.1). There were no photographs

of people who were overweight. Photographs of food comprised 19.8% (0.6) of the average

photographs per blog post with photographs of health food making up 11.1% (0.3). Photographs

of normalized meals comprised 8.9% (0.2), photographs of ritualized food/meals comprised

4.8% (0.1), and "other" food made up 2.0% (0.1). There were no photographs of junk food.

      Relationship Between Stage of Change and Photographs. The relationship between

stage of change and various types of photographs was analyzed using Pearson's Correlation

Coefficients. A significant positive correlation was found between stage of change and

photographs unrelated to food or appearance ($r(13)= .641$, $p= .018$). Significant negative

correlations were found between stage of change and photographs of food ($r(13) = -.601$, $p =$

.030), health food ($r(13) = -.583$, $p = .037$), normalized meals ($r(13) = -.652$, $p = .016$) and

ritualized food/meals ($r(13) = -.576$, $p = .039$). While they did not meet significance, likely due

to the small sample size, moderate to strong correlations were also found for other types of

photographs. A strong positive correlation was found between stage of change and photographs

of people ($r(13) = .471$, $p = .104$), and a moderate positive correlation was found between stage

of change and photographs of the author ($r(13) = .394$, $p = .183$), and between stage of change

and photographs of people focused on health ($r(13) = .375$, $p = .207$). A moderate negative

correlation was found between stage of change and overall photographs ($r(13) = -.350$, $p = .241$).

No correlations were found between stage of change and photographs accentuating thinness, or

"other" food photographs

Table 2

Photographs Per Blog Post

	Avg. Per Post	%	Correlation w/ ANSOCQ Score (*r*)	*p* Value
Total photos	2.77	100%	-.350	.241
Of people	0.7	26.0%	.471	.104
Of author	0.5	18.4%	.394	.183
Accentuating thinness	0.1	2.9%	-.161	.600
Focused on health	0.1	3.9%	.375	.207
Accentuating overweight	0	0%		
Photos of food	0.6	19.8%	-.601	.030
Health food	0.3	11.1%	-.583	.037
Junk food	0	0%		
Normalized meals	0.2	8.9%	-.652	.016
Ritualized	0.1	4.8%	-.576	.039
Other	0.1	2.0%	.071	.818
Unrelated to food/appearance	1.3	47.2%	.641	.018

Comments

The number of comments for each blog post was counted, totaled for each blog, and an average number of comments per blog post calculated. The average number of comments per blog post ranged from .67 comments to 73.83 comments, with a mean of 9.64 (see Table 3). Comments were then categorized based on their content, though each comment could represent more than one category. Comments that provided support or positive feedback were the most prevalent type of comments at 81.4% (7.8) of the total comments. Comments relating to the blogger, or self-disclosing comprised 46.3% (4.5) of the total comments, asking questions comprised 4.4% (0.4), eliciting support comprised 1.3% (0.1), and comments expressing criticism or disagreement made up only .09% (0.1).

Relationship Between Stage of Change and Comments. Correlations were performed to determine the relationships between stage of change and the various types of comments. Significance was not reached in these correlations; however, moderate to strong relationships were found. A moderate positive correlation was found between stage of change and comments eliciting support (r(13) = .327, p = .276). A strong negative correlation was found between stage of change and number of comments (r(13) = -.479, p = .098). A moderate negative correlation was found between stage of change and comments relating or self-disclosing (r(13) = -.387, p = .192). There were no correlations found between stage of change and comments providing support and positive feedback, those expressing criticism or disagreement, or those asking questions.

Table 3

Comments Per Blog Post

	Avg. Per Post	%	Correlation w/ ANSOCQ (*r*)	*p* Value
Total comments	9.64	100%	-.479	.098
Providing support/positive feedback	7.8	81.4%	-.022	.943
Eliciting support	0.1	1.3%	.327	.276
Expressing criticism/disagreement	0.1	.09%	.150	.624
Relating/self disclosing	4.5	46.3%	-.387	.192
Asking questions	0.4	4.4%	-.122	.692

Purposes of Post

Written content was thematically analyzed to identify each post's purpose(s). Each post contained written content consistent with one of more of the following purposes: expression of emotion, seeking support, asking questions, providing advice, and sharing

information/knowledge. The most common purpose of blog posts was expression of emotion, with 96.8% (11.2) of posts per blog displaying expression of some kind (see Table 4). The most common type of expression was positive emotion, which comprised 84.0% (9.7) of posts per blog, while negative emotion was displayed in 43.6% (5.1). Stress related to food/ED/treatment was expressed in 63.4% (7.4) of posts per blog and stress unrelated to food/ED/treatment was expressed in 38.0% (4.4). Other purposes of blog posts included asking questions (40.5%; 4.7), providing advice (30.6%; 3.5), sharing information/knowledge (30.0%; 3.5), discussing comorbid psychiatric symptoms (15.6%; 1.8), and seeking support (8.3%, 1.0).

Relationship Between Stage of Change and Purpose of Post. Correlations were performed to determine the relationship between stage of change and different blog post purposes. Significant negative correlations were found between stage of change and seeking support ($r(13) = -.609$, $p = .027$), as well as between stage of change and asking questions ($r(13) = -.562$, $p = .046$). While it did not reach significance, a strong positive correlation was found between stage of change and providing advice ($r(13) = .449$, $p = .124$). Correlation tests between stage of change and expression, negative emotion, positive emotion, stress related to food/ED/treatment, stress unrelated to food/ED/treatment, comorbid psychiatric symptoms, and sharing information/knowledge did not show a relationship between these variables.

Table 4

Purposes of Blog Posts

	Avg. Posts Per Blog	%	Correlation w/ ANSOCQ Score *(r)*	*p* Value
Expression	11.2	96.8%	-.150	.624
Negative emotion	5.1	43.6%	-.216	.478
Positive emotion	9.7	84.0%	-.160	.602
Stress related to food/ED/tx	7.4	63.4%	-.186	.544
Stress unrelated to food/ED/tx	4.4	38.0%	-.050	.871
Comorbid psych sx	1.8	15.6%	.112	.715
Seeking support	1.0	8.3%	-.609	.027
Asking questions	4.7	40.5%	-.562	.046
Providing advice	3.5	30.6%	.449	.124
Sharing info/knowledge	3.5	30.0%	-.012	.968

Content of Post

In addition to overall purpose, each sampled post was thematically analyzed to identify content in two categories: ED related, and non-ED related. It is important to note that each blog post could contain multiple content types. ED related content was present in most blog posts, comprising 92.7% (10.8) of posts per blog (see Table 5). Included in this category, 63.6% (7.4) of posts per blog included mention of food/nutrition, 40.4% (4.7) included mention of the recovery process, 35.1% (4.1) included mention of weight, 29.8% (3.5) included mention of body image, 27.8% (3.2) mentioned treatment, 26.3% (3.1) mentioned exercise, 18.5% (2.1) included mention of the effects of AN, 10.6% (1.2) included mention of the impact of blogging, and 6.6% (0.7) included mention of ED activism.

Non-ED related content was also present in the majority of blog posts, comprising 76.8% (8.9) of posts per blog. Within the non-ED related category, 64.9% (7.5) of posts per blog

included mention of outside interests and activities, and 60.3% (7.0) included mention of non-treatment based relationships.

      Relationship Between Stage of Change and Content of Post. Correlations were performed to determine the relationship between stage of change and different types of blog post content. While the findings did not reach significance, moderate to strong relationships were found between several variables. A strong positive correlation was found between stage of change and mention of treatment ($r(13) = .398$, $p = .178$). A moderate positive correlation was found between stage of change and mention of effects of AN ($r(13) = .329$, $p = .272$). A strong negative correlation was found between stage of change and mention of food/nutrition ($r(13) = -.421$, $p = .151$). Additionally, a moderate negative correlation was found between stage of change and mention of exercise ($r(13) = -.343$, $p = .251$). Correlations were not notable between the variables of stage of change and overall ED related content, or mention of weight, body image, recovery process, impact of blogging, or activism. Additionally, correlations were not observed between stage of change and non-ED related content, outside interests and activities, and non-treatment relationships.

Table 5

Content of Blog Posts

	Avg. Posts Per Blog	%	Correlation w/ ANSOCQ Score *(r)*	*p* Value
ED related content	10.8	92.7%	-.235	.440
Weight	4.1	35.1%	.120	.697
Body image	3.5	29.8%	.278	.357
Food/nutrition	7.4	63.6%	-.421	.151
Exercise	3.1	26.3%	-.343	.251
Treatment	3.2	27.8%	.398	.178
Recovery process	4.7	40.4%	.119	.699
Effects of AN	2.1	18.5%	.329	.272
Impact of blog	1.2	10.6%	-.298	.323
Activism	0.7	6.6%	.004	.989
Non ED related	8.9	76.8%	.113	.714
Outside activities/interests	7.5	64.9%	.067	.829
Non-treatment relationships	7.0	60.3%	.021	.946

Perspectives on Blogging

As part of the internet survey, participants were asked to share reasons why they started

their blogs, and most participants listed more than one reason. Thematic analysis was conducted

on these responses and several themes became apparent. Six participants (46.2%) stated that

they started their blogs to help others suffering from EDs. Six participants (46.2%) stated that

they started their blogs to gain support and connect with others. Six participants (46.2%) wanted

to tell their story and document their recovery journey. Five participants (38.5%) wanted a place

where they could express themselves freely and "vent." Two participants (15.4%) started

blogging because they thought they had an eating disorder but were not exactly sure. Other

reasons, each identified by one participant (7.7%), included the desire to hold oneself

accountable, provide friends and family with a better understanding of one's experience, and provide accurate info about EDs.

Participants were also asked to rate the extent to which they felt blogging had been a positive or negative influence on their recovery on a scale of 1 (Very Positive) to 5 (Very Negative). Almost all participants (n=12; 92.3%) rated the influence of blogging on their recovery to be very positive. Only one participant (7.7%) responded differently, stating that the influence of blogging was somewhat positive. Since the responses were so uniform, there was not a significant correlation between perceived influence of blogging and stage of change.

Participants were then asked to state which aspects of blogging had a positive or negative influence on their recovery. Most participants shared aspects of blogging that have had a positive influence on their recovery but some also noted aspects of blogging that had a negative influence. The aspect of blogging noted most by bloggers as a positive influence on recovery was the support, positive feedback and sense of community, noted by 9 participants (69.2%). Five bloggers (38.5%) shared that the ability to express oneself and share emotions was an aspect of blogging that had a positive influence on recovery. Three bloggers (23.1%) noted that reflecting on their recovery journey and accomplishments had positively influenced their recovery. Two bloggers (15.4%) also listed "accountability" as a helpful aspect of blogging. Other aspects of blogging listed as helpful by one participant (7.7%) each included: reading the stories of others in recovery; blogging about food and learning about nutrition; and having parents and dietician better understand a blogger's experience. One blogger stated: "I don't know if I would be this far along in my recovery if I didn't start blogging." Another wrote: "Blogging is a therapeutic tool which helps prevent relapse."

Four bloggers (30.8%) also noted aspects of blogging which had a negative influence on their recovery process. These included: tendency to compare oneself to others (n=2; 15.4%); other blogs can be triggering (n=1; 7.7%); and negative comments (n=1; 7.7%). The 4 participants who listed aspects of blogging which had negatively influenced their recovery had some of the lowest scores on the ANSOCQ, denoting an earlier stage of change. An independent samples t-test was conducted to compare stage of change for participants who identified negative aspects of blogging and those who did not. This t-test showed that those who identified negative aspects of blogging had ANSOCQ scores that were significantly lower than those who did not $(t(11) = -2.58, p = .026)$.

Conclusion

Thirteen participants were included in the sample for this study. In terms of demographics, this sample was uniformly female and White/Caucasian. The average age of participants was 24 and the majority had completed at least some college. All participants had received treatment for AN at some point and the majority were currently receiving outpatient treatment. Participants' stage of change, as assessed by the ANSOCQ, showed that participants ranged from the contemplation to the maintenance stage, with the majority of participants in the later two stages of action and maintenance. When stage of change was assessed by blog content analysis, a correlation was found with ANSOCQ scores, however, stage of change scores tended to be higher when assessed through blog content. Additionally, it was found that the earlier one's stage of change, the greater the difference between the two ratings of stage of change.

The content of the 13 blogs over the last 3 months was analyzed for the presence and frequency of photographs and comments, as well as the purposes and content of the written posts. Photographs were included in the majority of blog posts, and photographs unrelated to

food or appearance were the most common type. Comments were often seen as part of blog posts and most often provided support or positive feedback to the blogger. Bloggers most often used their blogs as a space for emotional expression, including both positive and negative emotion. They also frequently used their blogs as a space to express stress related to food/ED/treatment. The majority of blog posts showed both ED-related content, especially mention of food/nutrition, as well as content unrelated to EDs, including outside interests and non-treatment relationships.

Correlations were found between stage of change and certain elements of blog content. Bloggers in earlier stages of change posted more photographs in general, and specifically posted more photographs of food, including health food, ritualized meals, and normalized meals than those in later stages of change. These bloggers tended to have more comments in response to their blog posts and, specifically, a greater number of comments relating or self-disclosing. Bloggers in earlier stages of change tended to use blogging as a space to seek support and ask questions. They also made more frequent mention of food/nutrition and exercise in blog posts.

Bloggers in later stages of change tended to post more photographs unrelated to food or appearance, photographs of people, photographs of the author, and photographs of people focused on health than those at earlier stages. The comments in response to the posts of bloggers in later stages of change tended to elicit support more frequently than comments in response to posts of bloggers in earlier stage of change. Bloggers in later stages of change used their blogs as a space to provide advice more frequently. In terms of the content of their blog posts, they tended to include more frequent mention of treatment as well as the effects of AN.

Thematic analysis of bloggers' responses to open-ended survey questions showed that participants began blogging for a number of reasons, including: to help others suffering from

EDs, gain support and connect with others, document the recovery journey, express oneself freely, and "vent". All bloggers included in the sample, no matter what their stage of change, perceived blogging as having a positive influence on their recovery. Bloggers specified a number of positive aspects of blogging, including: support, community and positive feedback, the ability to express and share emotions, reflecting on the recovery journey and accomplishments, and accountability. However, negative aspects of blogging were also mentioned by four bloggers, who were in the earlier stages of recovery. The following chapter will discuss the implications of these findings in light of previous literature, and the strengths and limitations of the study, with recommendations for future research.

CHAPTER V

Discussion

This mixed-methods study sought to understand how individuals at various stages of change in the recovery process from AN use blogging, and perceive the influence of this activity on their recovery process. An internet survey measured bloggers' stage of change using the ANSOCQ, a standardized questionnaire, and asked bloggers why they began blogging as well as how they perceived the influence of blogging on their recovery process. The study also included a content analysis of these individuals' blog posts to measure the presence and frequency of a number of elements. The data were then analyzed to identify correlations between stage of change and various elements present on blogs. The findings of this study provide the first look at the characteristics of AN recovery blogs and how bloggers appear to be using this medium.

Characteristics of Bloggers

The sample for this study was predominantly composed of educated, White women. This may be an accurate reflection of the demographic makeup of individuals who blog about AN recovery, or it may be that the sample was too small to capture the diversity of these bloggers. The demographic makeup of this study's sample does not appear to be consistent with the finding of Lenhart et al. (2010), that blogging is equally common across gender, race, income and education level. However, demographics associated with AN could contribute to a more homogeneous sample.

Epidemiological studies show that a high percentage of AN sufferers are young, White females (Hoek, 2006), which matches this study's sample. However, research has also shown that EDs are much more common than previously thought in people of color and in men, though many people still mistakenly believe that they *only* affect young, White women (Gordon, Perez, & Joiner, 2002). This stereotype may prevent individuals who do not fall into the "expected" demographic, including men and people of color, from sharing their experience freely through blogging. While the argument can be made that the anonymous nature of the internet provides a space in which individuals' demographic characteristics are unknown and therefore not relevant, that does not appear to be the case in this study, as the majority of blogs analyzed in this study included photographs of the author.

Interestingly, one male blogger who identified as White, and one female blogger who identified as Hispanic/Latina completed surveys. However, their blogs did not fully meet inclusion criteria due to having less than 7 posts within the last 3 months, and therefore were not included in the sample. The inclusion of these bloggers would have added diversity to this study's sample. It would be useful to consider whether differences in gender and race/ethnicity are related to blogging behavior, and the possible reasons for this.

All bloggers in this study had received some treatment for AN, and the majority were currently receiving outpatient treatment. Thus, bloggers do not appear to be using blogging as a replacement for treatment, but rather as an additional tool. This supports the finding of Finn (1995) that online support often serves as an adjunct to traditional forms of treatment, including individual or group psychotherapy. It would be interesting to look at how blogging behavior and the influence of blogging on the recovery process might differ depending on whether the blogger has received treatment, and what type.

Bloggers' Stage of Change

The participants in this study ranged in terms of their stage of change from the contemplation stage through the maintenance stage. It makes sense that precontemplation was not represented, since establishing a recovery blog requires awareness of AN as a problem, and some motivation for recovery. Most bloggers fell into the latter two stages of change, action and maintenance.

An interesting finding of this study was the difference between stage of change scores assessed by the ANSOCQ versus through blog content. Specifically, bloggers appear to portray themselves at a slightly higher stage of change on their blogs than in an anonymous survey. This tendency could be due to their desire to present their recovery in a positive light to their readers, especially since nearly half of the bloggers in this study report starting their blogs to help others suffering from EDs. They may also present themselves at a higher stage of change in hopes of receiving support and positive rather than negative feedback. However, other explanations are possible and further research into this topic is needed.

A limitation of this study exists in the fact that stage of change was determined from blog content by only one rater, and therefore, the study should be replicated using multiple raters to increase reliability. Additionally, through the analysis of blogs' written content, it was found that 3 bloggers in the current study had recently become pregnant, which could potentially affect the generalizability of this study's findings. Since women with EDs tend to experience a reduction in the severity of their symptoms during pregnancy (Blais et al., 2000), it is possible that pregnancy contributed to elevated stage of change scores for these three bloggers.

Characteristics of AN Recovery Blogs

This study provides insight into the characteristics of AN recovery-focused blogs as well as the ways in which bloggers use blogging to document their recovery process. Bloggers most often used their blogs as a space for emotional expression, including both positive and negative emotion. They also frequently used their blogs as a space to express stress related to food/ED/treatment. Therefore, it appears as though bloggers are using the medium of blogging as a type of expressive writing. Since expressive writing allows the disinhibition of thoughts and emotions, and promotes exposure to previously avoided thoughts, memories, and emotions, it is thought to be especially helpful for individuals suffering with AN who tend to suppress or have trouble expressing distressing affect. Since bloggers in this study so often used blogging as a means of expressing emotion, it may be that blogging offers similar benefits as expressive writing to individuals in recovery from AN. However, further research is needed to determine if the written content of recovery blogs does in fact possess the same characteristics and benefits of expressive writing.

Both content related and unrelated to EDs was present in the majority of blog posts. In terms of ED related content, food/nutrition was the element most commonly mentioned, followed by the recovery process, weight, body image and treatment. It is notable that there was only one mention of the author's actual numerical weight. More often, when bloggers mentioned weight, they were reflecting on the past or present process of gaining or maintaining weight and their related feelings. This could be due to a decreased fixation upon one's numerical weight with recovery, or perhaps an effort to not be "triggering" for readers, and presents a stark contrast to pro-ED blogs, which freely advertise weight numbers (Fox et al., 2005; Riley et al., 2009).

The presence of content unrelated to EDs including outside interests and activities, as well as non-treatment relationships, and frequency of photographs unrelated to food or appearance, shows that bloggers are using these blogs to share other aspects of their lives outside of their ED recovery. Perhaps this reflects how individuals in recovery become less fixated on and consumed by their illness, and more engaged in their relationships and outside interests. It would be interesting to study how frequently authors of pro-ED blogs mention content unrelated to EDs as compared to authors of pro-recovery blogs.

In addition to written text, bloggers frequently include photographs as part of their blog posts. Most photographs were unrelated to food or appearance, while a smaller percent were photos of people or food. Photographs of health food and normalized meals were included more frequently than photographs representing disordered eating. Interestingly, there were no photos of people who were overweight, or photos of junk food. These findings may be explained in part by the tendency of women with histories of AN to have lower BMIs, and focus more on health benefits of food than those without a history, even following recovery (Dellava, Hamer, Kanodia, Reyes-Rodriguez, & Bulik, 2011).

Comments followed most blog posts, and the most frequent type of comment provided support and positive feedback, followed by comments relating or self-disclosing. Comments asking questions, seeking support and expressing criticism or disagreement were infrequent. The infrequency of these types of comments could be due to commenters not expecting a response from authors. It is possible that the number of comments expressing criticism or disagreement shown on the blog is lower due to the removal of these comments by authors. Overall, these findings appear to be consistent with those of Rains and Keating (2011), who found that blogging about health related issues represents a novel means of receiving social support.

Bloggers in Early Stages of Change

Notable differences in blog content were found between bloggers in early stages of recovery and those in later stages of recovery. Bloggers in early stages of recovery displayed more photos of food, including health food, normalized meals, and ritualized meals. While one would expect bloggers in earlier stages of change to include more photos of ritualized meals, it is interesting and perhaps unexpected that they also display photographs of normalized meals more frequently as well. This may indicate that while these bloggers are beginning to eat in a more normalized fashion, they still possess a greater fixation on food in general than do those in later stages of recovery. In terms of blog content, mention of food/nutrition and exercise was made more frequently by bloggers in earlier stages of change. It is not surprising that individuals in earlier stages of change tend to focus more on food/nutrition and exercise, as these elements are often the initial focus of ED treatment (Pike, 1997).

Bloggers in earlier stages of change had more comments in response to their posts than bloggers in later stages of change, specifically more comments relating or self-disclosing. Bloggers at earlier stages of change also seek support and ask questions more frequently than do bloggers at later stages of change. It may be that the greater number of comments reflects a response to the eliciting of support by the authors of these blogs. The questions bloggers posed often asked readers about their own personal experience, thereby likely eliciting a greater number of comments relating or self-disclosing.

There is also the possibility that the number of comments is more a result of other factors, such as the age of the blog. A blog which has been active for longer would tend have a greater number of readers who follow the blog and comment. It would also be useful to look at how frequently authors respond to comments on their blogs and whether this encourages a greater

number of comments, or promotes certain types of comments. It is also important to consider the characteristics of the readers of recovery blogs. It is possible that the greater number of comments relating or self-disclosing to blogs of authors in earlier stages of recovery shows a similar early stage of recovery of the readers; however, further research is needed to determine this.

Bloggers in Late Stages of Change

The blogs of individuals further along in the recovery process appear to reflect their decreased fixation on elements related to their ED, and a greater engagement in life outside of their ED. Bloggers in later stages of change displayed more photographs unrelated to food and appearance than did bloggers in earlier stages of change. These bloggers also included more photographs of people, specifically photos of the author and photos of people emphasizing health. Bloggers in later stages of change may include more photographs of themselves due to a greater level of comfort with their appearance, though this remains speculation at this point.

Interestingly, in terms of blog content, bloggers at later stages of change included more frequent mention of treatment and the effects of AN. One might expect those in earlier stages of change to write more about treatment, given that they are likely presently or have recently undergone more intensive treatment, however this did not seem to be the case. A possible explanation for this trend, whether bloggers at later stages of change are mentioning past or present treatment, is that they may tend to be more forthcoming and honest about the recovery process, including the difficult parts, like treatment and the effects of AN, while bloggers at earlier stages of change tend to focus on keeping track of their food and exercise habits, and presenting themselves in a positive light. This may connect to the finding of Keski-Rahkonen and Tozzi (2005), who found that a number of participants in a Finnish ED internet discussion

forum, appeared to fit into an advanced phase of the maintenance stage of change, called transcendence. This stage was characterized by gaining distance from the ED and searching for meaning, as well as reflecting on past struggles and offering advice. This is similar to how bloggers at later stages of change in the current study reflected back on past treatment and struggles. Perhaps those struggling in the early stages of recovery share more about the elements they feel they have control over, like healthy eating and exercise, while avoiding areas that make them feel more vulnerable, such as treatment or effects of AN.

Bloggers at later stages of change received more comments eliciting support in response to their blog posts. These bloggers at later stages of change also used their blogs as a space to provide advice more often than bloggers at earlier stages of change. As bloggers progress through the recovery process, and gain more insight and experience, it follows that they would feel more comfortable and confident sharing advice regarding the recovery process to those at earlier stages of recovery. Readers, especially those at earlier stages of change, likely look to bloggers at later stages of change as authorities on the subject of AN recovery, and seek support, advice and inspiration through their comments. This finding relates to the assertion by Keski-Rahkonen and Tozzi (2005) that former ED sufferers, who outline their stories of recovery online, are a valuable resource often underutilized in treatment settings. It would be interesting in the future to survey blog readers to determine how helpful they found the advice given by bloggers.

Perceptions of Blogging

Thematic analysis of bloggers' responses to open-ended survey questions showed that participants began blogging for a number of reasons, including: to help others suffering from EDs, gain support and connect with others, document the recovery journey, express themselves

freely, and "vent." These findings are similar to those of Hollenbaugh (2011), and Nardi et al. (2004), which found the following most common motives for blogging: documenting one's life, archiving and organizing thoughts and ideas, expressing deeply felt emotions, helping and informing others, establishing and maintaining social connection, and eliciting feedback and advice from others.

Bloggers in this study unanimously perceived blogging as having a positive influence on their recovery. Bloggers specified a number of positive aspects of blogging, including: support, community and positive feedback, the ability to express and share emotions, reflecting on the recovery journey and accomplishments, and accountability. Specific comments of bloggers, including, "I don't know if I would be this far along in my recovery if I didn't start blogging," and, "Blogging is a therapeutic tool which helps prevent relapse," appear to provide initial support for the therapeutic benefits of this activity.

While bloggers in this study at all stages of change perceived blogging as having an overall positive influence on their recovery, bloggers at earlier stages of change were more likely to identify negative aspects of blogging as well. These negative aspects included the comparison with other bloggers, the triggering nature of other blogs, and negative feedback. It appears that, while less frequent, the comparison that can occur in traditional in-person support groups (Rich, 2006), can also occur in the world of blogging, perhaps contributed to by the inclusion of photos of the author on most blogs. Bloggers at earlier stages of change are likely more easily triggered and vulnerable to comparison and critique than bloggers at later stages of change. It is also important to consider if the blog elements commonly included by bloggers at earlier stages of change, such as frequent use of photos and mention of food, have a detrimental effect on these bloggers' recoveries.

It is useful to compare these findings with that of Keski-Rahkonen and Tozzi (2005), who found that an ED internet discussion forum was helpful in the early stages of recovery but hindered recovery in the later stages. Additionally, these researchers observed that more participants found their own internet discussion forum to be more unhelpful than helpful. These results contrast markedly with those of the current study, and may point to the differences between various venues for obtaining online support, specifically blogging, versus discussion groups, forums, and chat rooms. Given the nature of blogging, bloggers have more control over the content of their blogs than do participants of internet forums. In addition to having freedom and control over what they post, they can also moderate or delete comments. Participants of discussion forums, on the other hand, do not have nearly as much control, and are instead part of a large discussion with many additional participants and variables. Individuals in recovery from AN may find the control and freedom of blogging appealing, and it may contribute to the overwhelmingly positive perception of bloggers regarding the influence of blogging on their recovery process.

Bloggers also have the ability to shift the focus of their blog as they move through the recovery process, which may be crucial to maintaining the helpfulness of blogging as one recovers. In an internet discussion forum, on the other hand, the participants are composed of individuals at various stages of change, and as a participant moves through recovery, the conversation will not necessarily change with them. As they progress through recovery, bloggers can determine whether they want to use their blog as a space to share their recovery story and offer advice, or focus more on non-ED related material such as outside interests and relationships, both of which were seen in this study.

Strengths and Limitations

The findings of this study should be considered in the context of both its strengths, and its limitations. The most significant strength is that it provided both self-report data through survey material while also allowing for a more naturalistic assessment of existing blog content. This mixed-methods approach provides the first extant research on the characteristics of AN recovery blogs, while also allowing bloggers to describe the influence of blogging on their recovery process in their own words. By measuring stage of change through both a standardized questionnaire and through analysis of blog content, comparison of both sets of scores was possible, resulting in greater accuracy.

A limitation of this study was the small sample size and demographic homogeneity of participants, which makes it difficult to generalize the findings. For future research, a larger, more diverse sample size is recommended. The small sample size may also have affected analysis by preventing some strong or moderate correlations from reaching statistical significance. Additionally, there is a potential bias in the qualitative content analysis process, as this researcher performed the main analysis without cross validation. While not feasible for this project, multiple raters would increase reliability of the findings, and is recommended for future research on the topic.

While this study included a greater number of bloggers in the later stages of change than in earlier stages of change, and all bloggers felt blogging has had a positive influence on their recovery, this could be due to a response bias. Bloggers who feel positive and confident about their recovery and about blogging may have responded to the recruitment email at higher numbers than bloggers in earlier stages of change or those who felt blogging had a negative impact on their recovery. Social desirability bias may have caused participants to rate

themselves at higher stages of change, or perhaps could have caused them to rate the influence of blogging on their recovery as higher than it truly was.

Lastly, while the use of a standardized, validated survey instrument like the ANSOCQ largely serves as a strength, this tool may also possess certain limitations. The wording of the multiple choice answers appeared to be confusing at times, as some participants chose conflicting multiple choice answers for certain questions (all questions allowed participants to select multiple responses). In other words, they chose answers that reflected both the earliest stage of change, precontemplation, and the latest stage of change, maintenance, for the same question. Additionally, it is important to note that cross-cultural data suggest that a variant of AN exists, termed non-fat-phobic AN, in which the rationale for food refusal does not focus on a fear of gaining weight (Becker, Thomas & Pike, 2009; Tareen, Hodes & Rangel, 2005). Currently, the Diagnostic and Statistical Manual of Mental Disorders (DSM) definition of AN does not include this variant and there is debate as to whether or not it should be included. Similarly, the ANSOCQ is not inclusive of this variant, as it includes several questions related to fear of weight gain and body image concerns, in order to determine one's stage of change. However, if an individual with non-fat-phobic AN completed this questionnaire, their answers to these questions may reflect a lack of insight into the problem and motivation to change, while in fact these concerns were simply not present for them. It is possible that this limitation of the ANSOCQ may have affected the results of the current study.

Implications for Social Work Practice

As the use of online media increases, it is important that clinicians become aware of ways in which their clients are using or could perhaps benefit from new forms of online media, including blogging. Since almost all of the bloggers in this study were also receiving current

outpatient treatment, outpatient clinicians are in a prime position to speak to their clients about their blogging activity and ways in which blogging is influencing their recovery process.

Because bloggers in the current study found blogging to be such a positive influence on the recovery process overall, clinicians may be encouraged to provide appropriate clients with information about this tool. Clients who are seeking increased social support, a space to share their recovery journey, an emotional outlet, a greater sense of accountability, or the ability to help others suffering with EDs, may be ideal candidates for this activity.

It is also important for clinicians to understand that individuals use blogging differently depending on their stage of change, and that clients at earlier stages of change may potentially be more vulnerable to triggering material, comparison with other bloggers, and negative comments. Nevertheless, the public blogs of individuals in recovery from AN also provide incredible resources to anyone who wants to learn about what it means to recover from an ED from the perspective of survivors themselves.

Implications for Future Research

This study has highlighted the need for further research into how individuals in recovery from EDs use blogging, what factors influence this use, as well as the benefits and drawbacks. The current study found that differences in blog content exist depending on one's stage of change in recovery and that all participants perceived blogging as having a positive influence on their recovery. However, because this study did not evaluate stage of change and blog content over an extended period of time, it is not possible to determine whether individuals will progress through stages of change in their blogging and whether their blogs will reflect these changes. By administering a stage of change questionnaire at 6-month intervals over an extended period of time, it would be possible to observe whether bloggers move through these stages. A study of

this kind would help determine whether blogging is more or less helpful at different stages of change.

While the current study provides important information about the authors of blogs and ways in which the activity of blogging is used, little is known about readers of blogs. Can reading these recovery-focused blogs, or perhaps commenting on them, provide similar benefits to those garnered through the actual act of blogging? Does the stage of change of a blogger attract a similar stage of change in their reader? These are important questions when considering how clinicians might talk to their clients about blogging during the recovery process, how clients might tailor this activity to their individual needs, and recommendations and caveats clinicians can provide.

As seen in this study, multiple bloggers, especially those at early stages of recovery, used their blogs as a space to document their food choices and exercise routines. This may reflect the attempt of bloggers at early stages of change to hold themselves accountable to their healthy nutritional plans towards recovery, or it could reflect an attempt to maintain control and fixation on food and exercise regimens, potentially hindering recovery. Further research into the potential benefits and drawbacks of this behavior is needed.

Lastly, this study focused exclusively on bloggers in recovery from AN, and therefore cannot be generalized to other EDs. It would be important to gain a better understanding of how individuals in recovery from different EDs, including Bulimia Nervosa, Eating Disorder Not Otherwise Specified, and Binge Eating Disorder, use blogging, and differences that might be seen between the various EDs.

Conclusion

As technology becomes increasingly integrated into our society, it is crucial that the field of social work becomes aware of the myriad ways in which this technology is being used by individuals suffering with mental health issues, and the implications of this use. This study provides an introductory exploration into the phenomenon of blogging through the recovery process from AN, as well as how survivors themselves perceive the influence of this activity on their recoveries. Blogging appears to provide both a unique outlet for emotional expression, as well as a means of obtaining and providing support, which bloggers in the current study utilized as an adjunct to traditional treatment. This study provides initial support for the benefits of this activity, and points to the need for further research into this important topic.

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Appendix A

Recruitment Email

Hello,

My name is Sarah Kupper, and I am a graduate student at the Smith College School for Social Work. I am looking for bloggers who are over 18 and in recovery from Anorexia Nervosa to participate in a research study on the role of blogging in recovery. Participation involves completing an online survey that takes no more than 15 minutes, and giving me permission to review your blog for the type and frequency of various posts and comments.

I hope you will consider participating. To learn more, and for access to the survey, please click on this link:

Thank you in advance for your time and participation!

Sarah Kupper

Appendix B

Human Subjects Review Approval Letter

February 31, 2012

Sarah Kupper

Dear Sarah,

You did very nice work on your revisions and your project is now officially approved by the Human Subjects Review Committee.

Please note the following requirements:

Consent Forms: All subjects should be given a copy of the consent form.

Maintaining Data: You must retain all data and other documents for at least three (3) years past completion of the research activity.

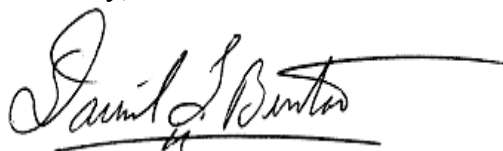*In addition, these requirements may also be applicable:*

Amendments: If you wish to change any aspect of the study (such as design, procedures, consent forms or subject population), please submit these changes to the Committee.

Renewal: You are required to apply for renewal of approval every year for as long as the study is active.

Completion: You are required to notify the Chair of the Human Subjects Review Committee when your study is completed (data collection finished). This requirement is met by completion of the thesis project during the Third Summer.

Best of luck and I hope to get a chance to hear your findings.

Sincerely,

David L. Burton, M.S.W., Ph.D.
Chair, Human Subjects Review Committee

CC: Natalie Hill, Research Advisor

Appendix C

Informed Consent

Dear Participant,

My name is Sarah Kupper, and I am a graduate student at Smith College School for Social Work. I am conducting a research study exploring the role of blogging in recovery from Anorexia Nervosa. I am interested in bloggers' perceptions of how blogging has influenced their recovery from Anorexia Nervosa, and whether blog content may reflect one's stage in the recovery process. Data from this study will be used in my MSW thesis and related presentations and possible publications.

You are eligible to participate if you are over 18 years of age, identify as being in recovery or recovered from Anorexia Nervosa, and maintain a blog. Participation involves completing an online survey taking no longer than 15 minutes, which includes some brief personal information, a questionnaire assessing your stage in the recovery process from Anorexia Nervosa, and your perspective on blogging. By consenting to participate in this study, you are giving me permission to review your blog content for presence and frequency of various posts, including types of photographs, content and purpose of the text (i.e. ED related material, outside interests, provision of advice, support seeking), and type of comments received.

A possible risk of participating in this study is some emotional distress from answering questions about your eating disorder recovery and how blogging has factored into it. I have attached a list of referral resources in case you experience this kind of distress. Potential benefits to participating in this study include the opportunity to share your experience, gain new insight and perspective, and contribute to the development of knowledge that may help others suffering from eating disorders. There will be no compensation for your participation in this study.

All possible precautions will be taken to maintain confidentiality and safeguard identifiable information. Your name and location will not be asked or included, and your email and IP addresses will not be tracked or made available to me by Survey Monkey. However, you will be asked to list the name of your blog at the start of the survey so that survey results can be connected with blog content; once the data are linked, the blog name will be deleted from both so that the results are no longer identifiable. My research advisor will have access to data only after identifying information has been removed. Data prepared for publication or presentation will be presented as a whole, and if any illustrative quotes are used, they will be carefully disguised. Additionally, any names seen on the blogs will be thoroughly disguised. The data will be kept secure for three years according to Federal guidelines, after which it will be destroyed; if data are needed beyond three years, they will continue to be stored securely, and destroyed when no longer needed.

Your participation in this study is completely voluntary. You may refuse to answer any questions and withdraw from the study at any time simply by leaving the survey site before you submit your answers at the end of the survey. You may also withdraw within 3 days after submitting your responses by emailing me. After 3 days, the blog name will be removed from your survey responses, and it will no longer be possible to identify your responses in order to withdraw them. If you have questions or concerns about this study, you may contact me via email, or you may also contact the Chair of the Smith College School for Social Work Human Subjects Review Committee at (413) 585-7974.

Thank you for your time,

Sarah Kupper

BY CHECKING "I AGREE" YOU ARE INDICATING THAT YOU HAVE READ AND UNDERSTAND THE INFORMATION ABOVE AND THAT YOU HAVE HAD AN OPPORTUNITY TO ASK QUESTIONS ABOUT THE STUDY, YOUR PARTICIPATION, AND YOUR RIGHTS AND THAT YOU AGREE TO PARTICIPATE IN THE STUDY.

Please keep a copy of this document for your records.

Appendix D

Referral List for Participants

For general counseling needs:

Psychology Today's Therapist Directory
http://therapists.psychologytoday.com/nmha/

Therapist Referral Network
1-800-843-7274

To access treatment services for eating disorders, contact:

National Eating Disorders Association
http://www.nationaleatingdisorders.org/
Helpline: 1-800-931-2237

If you experience a psychiatric emergency or crisis, contact:

National Suicide Prevention Hotline
1-800-273-TALK (8255)

Appendix E

Questionnaire

Eligibility

1. Are you 18 or older?

○ Yes

○ No

2. Do you identify as being in recovery or recovered from Anorexia Nervosa?

○ Yes

○ No

3. Do you currently maintain a blog?

○ Yes

○ No

＊5. What is the URL of your blog?

*This information allows your survey results to be connected with blog content; however, once the data are linked, the blog name/URL will be deleted from both so that the results are no longer identifiable.

Demographic Questions

6. What is your age?

7. What is your gender?

○ Female

○ Male

Other (please specify)

8. What is your race/ethnicity? Please choose all that apply:

☐ Black/African-American

☐ Hispanic/Latino

☐ Asian/Pacific Islander

☐ Native American

☐ White/Caucasian

Other (please specify)

9. What is the highest level of education you have completed?

○ 8th Grade or below

○ Some High School

○ High School/GED

○ Some College

○ 2-Year College Degree

○ 4-Year College Degree

○ Master's Degree

○ Doctoral Degree

○ Professional Degree (MD, JD)

10. Have you received treatment for Anorexia Nervosa?

○ Yes

○ No

11. What types of treatment have you received? Please choose all that apply:

	No	Yes, Current	Yes, Past (within past year)	Yes, Past (2-4 years ago)	Yes, Past (over 4 years ago)
Outpatient Treatment (e.g., individual counseling, nutrition and medical appointments)	☐	☐	☐	☐	☐
Partial Hospitalization/Day Treatment	☐	☐	☐	☐	☐
Residential Treatment	☐	☐	☐	☐	☐
Inpatient Hospitalization	☐	☐	☐	☐	☐

Survey Instrument

Each of the items below is made up of five statements. For each item, please read the five statements carefully. Then select the statement (or statements) which best describe/s your current attitude or behavior (not how you have been in the past or how your would like to be).

12. The following statements refer to gaining weight:

☐ As far as I am concerned I do not need to gain weight.

☐ In some ways I think that I might be better off if I gained weight.

☐ I have decided that I will attempt to gain weight.

☐ At the moment I am putting in a lot of effort in to gaining weight.

☐ I am working to maintain the weight gains I have made.

13. The following statements refer to body weight:

☐ As far as I am concerned I do not need to weigh what my doctor recommends.

☐ In some ways I think that I might be better off if I weighed what my doctor recommends.

☐ I have decided that I will attempt to reach the weight my doctor recommends.

☐ At the moment I am putting in a lot of effort to reach the weight my doctor recommends.

☐ I am working to maintain the weight my doctor recommends.

14. The following statements refer to parts of your body which may particularly concern you in terms of weight gain (such as hips, thighs, stomach or buttocks):

☐ There is no way I would be prepared to gain weight on these body parts.

☐ Sometimes I think I would be prepared to gain weight on these body parts.

☐ I have decided that I am prepared to gain weight on these body parts.

☐ I am presently trying to gain weight on these body parts.

☐ I am working to maintain the weight I gained on these body parts.

15. The following statements refer to your appearance:

☐ I do not want to be a normal weight because I would be less satisfied with my appearance.

☐ I have occasionally thought about being a normal weight because in some ways I would be more satisfied with my appearance.

☐ I have decided to reach a normal weight because I would be more satisfied with my appearance.

☐ I am presently trying to reach a normal weight because I will be more satisfied with my appearance.

☐ I am working to maintain a normal weight because I am more satisfied with my appearance.

16. The following statements refer to your health:

☐ I do not need to be a normal weight because there are no risks to my health when I weigh below what my doctor recommends.

☐ I have occasionally thought about being a normal weight because of the risks to my health when I weigh below what my doctor recommends.

☐ I have decided to reach a normal weight because of the risks to my health when I weigh below what my doctor recommends.

☐ I am presently trying to reach a normal weight because of the risks to my health when I weigh below what my doctor recommends.

☐ I am working to maintain a normal weight because of the risks to my health when I weigh below what my doctor recommends.

17. The following statements refer to the importance of body shape and weight:

☐ I do not exaggerate the importance of my body shape or weight in determining my happiness and success.

☐ Sometimes I think that I exaggerate the importance of my body shape or weight in determining my happiness and success.

☐ I have decided that I need to reduce the importance that I place on my body shape or weight in determining my happiness and success.

☐ I often try to challenge the importance that I place on my body shape or weight in determining my happiness and success.

☐ I have succeeded in reducing my tendency to place too much importance on my body shape or weight in determining my happiness and success and want to stay this way.

18. The following statements refer to fear of fatness:

☐ My fear of becoming fat is not excessive.

☐ I occasionally think that my fear of becoming fat is excessive.

☐ I have decided that I need to do something about the fear I have of becoming fat because it is controlling me.

☐ I know that my fear of becoming fat has caused problems and I am now trying to correct this.

☐ I have succeeded in reducing my fear of becoming fat and want it to stay this way.

19. The following statements refer to weight loss:

☐ I would prefer to lose more weight.

☐ Sometimes I think that it might be time to stop losing weight.

☐ I have decided that it is time to stop losing weight.

☐ I am trying to stop losing weight.

☐ I have managed to stop losing weight and hope to stay this way.

20. The following statements refer to body fat versus muscle:

☐ I might think about gaining muscle on purpose, but I would never think of gaining fat on purpose.

☐ Sometimes I think that I may need to gain some fat even though I would prefer to have only muscle.

☐ I have decided that to be healthy I need to have some fat on my body.

☐ I realize that I need to have some fat on my body and am working to achieve this.

☐ I have managed to increase the level of fat on my body which I am trying to maintain.

21. The following statements refer to the rate of weight gain:

☐ There is no way I would be prepared to gain at least 2 lbs a week.

☐ Sometimes I think I would be prepared to gain at least 2 lbs a week.

☐ I have decided that in general it would be best for me to gain at least 2 lbs a week.

☐ I am putting in a lot of effort to gain at least 2 lbs a week.

☐ I am working to maintain my weight but would be prepared to gain at least 2 lbs a

☐ week if necessary.

22. The following statements refer to certain shape and weight standards which you may have for evaluating your body (such as only being satisfied with your body when your thighs are not touching, when specific bones can be seen, when your stomach is flat, when you are below a certain weight or when you fit into certain clothes):

☐ The standards I use to evaluate my body are not too strict.

☐ Sometimes I think that the standards I use to evaluate my body may be too strict.

☐ I have decided that the standards I use to evaluate my body are too strict and need to be changed.

☐ I am putting in a lot of effort to change the strict standards which I use to evaluate my body.

☐ I have managed to let go of the strict standards which I used in the past to evaluate my body and am hoping to keep it this way.

23. The following statements refer to certain foods which you may avoid eating (such as foods high in calories or fat, red meat, dairy products or food where the caloric content is not known):

☐ There are certain foods which I strictly avoid and would not even consider eating.

☐ There are certain foods which I try to avoid, although sometimes I think that it might be okay to eat them occasionally.

☐ I think that I am too strict in the foods which I allow myself to eat and have decided that I will attempt to eat foods which I usually avoid.

☐ I am putting in a lot of effort to regularly eat foods which I usually avoid.

☐ I used to avoid eating certain foods which I now eat regularly.

24. The following statements refer to daily food consumption:

☐ There is no need for me to eat 3 standard-size meals plus snack(s) each day.

☐ Sometimes I think that I should eat 3 standard-size meals plus snack(s) each day.

☐ I have decided that I need to eat 3 standard-size meals plus snack(s) each day.

☐ I am putting in a lot of effort to eat 3 standard-size meals plus snack(s) each day.

☐ I am working to maintain a current eating pattern which includes 3 standard-size meals plus snack(s) each day.

25. The following statements refer to time spent thinking about your weight (such as thoughts about becoming fat, counting the calories or fat content of food, or calculating the amount of energy used when exercising):

☐ There is nothing wrong with the amount of time I spend thinking about my weight.

☐ The amount of time I spend thinking about my weight is a problem sometimes.

☐ I have decided that I need to use strategies to help me reduce the amount of time I spend thinking about my weight.

☐ I am using strategies to help me reduce the amount of time I spend thinking about my weight.

☐ I used to spend too much time thinking about my weight which I have managed to reduce and hope to keep it this way.

26. The following statements refer to certain eating behaviors (such as needing to eat food at a specific rate or time, being unable to eat from a full plate, moving food around on the plate, being unable to eat all the food on a plate, taking longer than others to eat meals, having difficulty eating with others, needing to chew food a certain number of times, not allowing food to touch your lips, needing to eat food in a specific order or needing to stick to the same food plan each day):

☐ There is nothing that I need to change about the way I eat my meals.

☐ I sometimes think that I need to change aspects of the way I eat my meals.

☐ I have decided that I will try to change aspects of the way I eat my meals.

☐ I am putting in a lot of effort to change aspects of the way I eat my meals.

☐ I have succeeded in changing aspects of the way I eat my meals and want it to stay this way.

27. The following statements refer to feelings associated with eating (such as feeling guilty, anxious or bloated) and not eating (such as feeling successful, in control or spiritually stronger):

☐ There is no need for me to change the feelings I associate with eating and not eating.

☐ I sometimes think that I need to change the feelings I associate with eating and not eating.

☐ I have decided that I will try to change the feelings I associate with eating and not eating.

☐ I am putting in a lot of effort to change the feelings I associate with eating and not eating.

☐ I have succeeded in changing the feelings I associate with eating and not eating and want it to stay this way.

28. The following statements refer to methods which you may use to control your weight (such as restricting your eating, exercising, vomiting, taking laxatives or other pills).

☐ There is nothing seriously wrong with the methods I use to control my weight.

☐ I have been thinking that there may be problems associated with the methods I use to control my weight.

☐ I have decided that I will attempt to stop using certain methods to control my weight.

☐ I am putting in a lot of effort to stop using certain methods to control my weight.

☐ I have managed to stop using certain methods to control my weight and I would like to keep it this way.

29. The following statements refer to certain emotional problems (such as feeling depressed, anxious or irritable):

☐ I do not have any emotional problems which I need to work on.

☐ I sometimes think that I may have certain emotional problems which I need to work on.

☐ I have certain emotional problems which I have decided to work on.

☐ I am actively working on my emotional problems.

☐ My emotional problems have improved and I am trying to keep it this way.

30. The following statements refer to certain characteristics (such as perfectionism, low self esteem or feeling a sense of lack of control over your life):

☐ I do not have any problems in the way I approach life which I need to work on.

☐ I sometimes think that I may have certain problems in the way I approach life which I need to work on.

☐ I have certain problems in the way I approach life which I have decided to work on.

☐ I am actively working on problems in the way I approach life.

☐ The problems in the way I approach life have improved and I am trying to keep it

☐ this way.

31. The following statements refer to relationship problems (such as relationships with family or friends):

☐ I do not have any problems in my relationships with others which I need to work on.

☐ I sometimes think that I may have certain problems in my relationships with others which I need to work on.

☐ I have certain problems in my relationships with others which I have decided to work on.

☐ I am actively working on problems in my relationships with others.

☐ The problems in my relationships with others have improved and I am trying to keep it this way.

The following questions are related to your experience of blogging.

32. I started my blog because:

33. Do you feel that blogging has been a positive or negative influence on your recovery?

○ Very positive

○ Somewhat positive

○ No influence

○ Somewhat negative

○ Very negative

34. What aspects of blogging do you think have had a positive or negative influence on your recovery?