Self-Injury Groups on Facebook
Des groupes d'automutilation sur Facebook

Kendra D. Niwa
Michael N. Mandrusiak
Adler School of Professional Psychology

ABSTRACT

The present study examines the interactions within 4 Facebook groups devoted to supporting people who self-injure. Content analysis was used to analyze posts made to the group during the 3-month period of the study to explore the nature of interactions and the frequency of themes. High prevalence themes included responses to verbal abuse against those who self-injure (16.8%), the discussion of personal issues without directly requesting support (11.2%), and offers of direct support to other group members (11.0%). Notable phenomena and implications for treatment are discussed.

RÉSUMÉ

La présente étude examine les interactions au sein de 4 groupes Facebook consacrés au soutien des personnes qui s'automutilent. On a eu recours à l'analyse de contenus pour caractériser les messages mis en ligne pour le groupe durant les 3 mois de l'étude, le but étant d'explorer la nature des interactions et la fréquence des thématiques. Parmi les thématiques les plus courantes, citons les réponses à la violence verbale (i.e., le trollage) dirigée contre ceux et celles qui s'automutilent (16,8 %), la discussion de problèmes personnels sans demande d'aide directe (11,2 %), et les offres d'aide directe à d'autres membres du groupe (11,0 %). On y discute aussi de phénomènes observables et des implications pour le traitement.

Self-injury refers to deliberate and voluntary injury to the physical self that is non-life-threatening and, importantly, is performed without conscious suicidal intent (Favazza, 1996; Froeschle & Moyer, 2004; Haines & Williams, 2003; Herpertz, Sass, & Favazza, 1997). Walsh (2006) specifically defined self-injury as "intentional, self effected, low lethality harm of a socially unacceptable nature performed to reduce psychological distress" (p. 4). Self-injury is alternatively referred to throughout the literature as nonsuicidal self-injury (NSSI), self-harm, deliberate self-harm (DIB), and self-mutilation (Favazza 1996; Laye-Gindhu & Schonert-Reichl, 2005; Tantam & Whittaker, 1992). In mainstream society, the term most commonly used to describe people who self-injure would be "cutter," as this is often the most identifiable form of self-injurious behaviour.

Self-injury is most often understood as a symptom of an underlying problem. It has been linked to various mood, anxiety, eating, substance, and personality disorders (Briere & Gil, 1998; Conterio, Lader, & Bloom, 1998; Favazza, 1992, 1996; Herpertz et al., 1997; Klonsky & Olino, 2008; Ross & Heath, 2002; Simeon

& Favazza, 2001; Tantam & Whittaker, 1992). Research in the last 20 years has demonstrated that self-injurious behaviours are not limited to institutionalized populations and are much more common in the general population than originally assumed (Briere & Gil, 1998; Favazza, 1996; Favazza & Rosenthal, 1990; Walsh, 2006); in fact research has shown self-injury to be particularly common among adolescents and young adults (Van der Kolk, Van der Hart, & Marmar, 1996).

<div align="center">SELF-INJURY IN ADOLESCENTS AND YOUNG ADULTS</div>

Self-injurious behaviours typically begin in adolescence, anywhere from age 13 to 19, and may continue for a number of years with variable intensity (Akyuz, Sar, Kugu, & Doğan, 2005; Conterio et al., 1998; Favazza, 1996; Froeschle & Moyer, 2004; Laye-Gindhu & Schonert-Reichl, 2005). White, Trepal-Wollenzier, and Nolan (2002) found that individuals between the ages of 18 and 22 are those most at risk of engaging in self-injurious behaviours, and Gratz's (2001) study echoed these numbers with research demonstrating that 35% of college students had either engaged in self-injury at one point in their lives or were currently self-injuring.

Three recent Canadian studies (Laye-Gindhu & Schonert-Reichl, 2005; Nixon, Cloutier, & Jansson, 2008; Ross & Heath, 2002) that have focused on the prevalence and onset of self-injury in nonclinical samples of adolescents and young adults are particularly relevant to this discussion. Laye-Gindhu and Schonert-Reichl (2005) focused on self-injury in a population of 424 urban high school students, aged 13 to 18-years old, in Vancouver, British Columbia. Nixon et al. (2008) used data from the Victoria Healthy Youth Survey, a population-based longitudinal survey of 580 youth aged 14 to 21 in Victoria, British Columbia. In a national study, Ross and Heath (2002) sampled 440 youth from urban and suburban high schools in Canada. Findings from these studies show that between 13.9% and 16.9% of youth admit to self-injury, with up to 42% reporting thoughts of self-injury. Taken together, these studies describe characteristic behaviour and patterns of youth who self-injure.

The majority of youth in Ross and Heath's (2002) study who reported engaging in self-injury began doing so between 12 and 14 years of age. Nixon et al. (2008) found the average age of onset for self-injurious behaviour to be 15 years of age, a finding that indicates that some youth begin self-injuring at later ages. The majority of the youth who admitted to self-injury claimed that they had done so repetitively for over a year, with 12% saying they had engaged in self-injury over 20 times in the past year (Laye-Gindhu & Schonert-Reichl, 2005). Consistent with these findings, 13.1% of those who admitted to self-injury said they self-injured at least once a day (Ross & Heath, 2002). In summary, findings suggest that onset often occurs as early as 12 years of age, though it can occur later, and tends to be a repetitive behaviour of varying frequency.

These studies also investigated methods used for self-injury. In Nixon et al.'s (2008) study, the most popular methods of self-injury appeared to be cutting, scratching, and self-hitting. As well, the study suggested 40% of respondents

claimed to engage in these behaviours repetitively. Ross and Heath (2002) found that most respondents used only one method of self-injury, with cutting being the most frequently reported means of self-injury. Cutting accounted for 41% of self-injuring in youth reports. Others reported engaging in self-inflicted hitting, pinching, biting, and burning. These findings are consistent with findings from Favazza and Rosenthal (1990).

Self-injury was found to be more common in females than males, with females representing between 64% and 77% of youth admitting to self-injury. This means that females were approximately twice as likely to admit to harming themselves as males (Laye-Gindhu & Schonert-Reichl, 2005; Nixon et al., 2008; Ross & Heath, 2002). Several other studies have found corresponding results (Akyuz et al., 2005; Cross, 1993; Favazza, 1996; Froeschle & Moyer, 2004; Simpson & Porter, 1981). When compared to males, females also tend to self-injure more frequently and for longer periods of time (Laye-Gindhu & Schonert-Reichl, 2005). Researchers found that females are more likely to report behaviours like cutting, while males appear to prefer methods like hitting, skin-picking, or biting, and these types of self-injurious behaviours may not be considered in all studies (Laye-Gindhu & Schonert-Reichl, 2005). There may also be a pattern for males to purposefully engage in self-destructive behaviours, such as street fighting and high-contact sports, that are less likely to be labelled as self-injury (Laye-Gindhu & Schonert-Reichl, 2005).

The strongest triggers of initial self-injury were found to be situations such as sexual assault, the loss of a parent, peer conflicts, being exposed to a self-injuring family member or friend, and social isolation (Akyuz et al., 2005; Connors, 1996; Cross, 1993; Laye-Gindhu & Schonert-Reichl, 2005; Simpson & Porter, 1981). Youth who report self-injury have been found to score higher on the Beck Depression Inventory and Beck Anxiety Inventory (Ross & Heath, 2002). Over 50% of respondents in one study noted depression, loneliness, negative feelings about oneself, distraction, and feeling the need to hurt oneself as reasons for self-injuring (Laye-Gindhu & Schonert-Reichl, 2005). Likewise, Stone and Sias (2003) found the most common antecedents to self-injury were real or perceived rejection and feelings of helplessness, anger, or guilt.

Many who self-injure demonstrate low self-esteem, poor body image, poor tolerance for unpleasant emotions, maladaptive coping skills, and poor communication skills (Favazza, 1996). There is growing consensus in the literature that self-injurious behaviour represents a maladaptive coping mechanism used by individuals who experience difficulty tolerating challenging emotions (e.g., Briere & Gil, 1998; Connors, 1996; Conterio et al., 1998; Favazza, 1996; Herpertz et al., 1997; Laye-Gindhu & Schonert-Reichl, 2005; Walsh, 2006).

YOUTH AND THE INTERNET

Youth use the Internet for a significant portion of their communication (Subrahmanyam & Lin, 2007). Consequently, this is an important and fruitful forum

for researching mental health concerns, including self-injury, within this demographic (Subrahmanyam & Lin, 2007; Whitlock, Lader, & Conterio, 2007). In a recent survey Lenhart, Madden, and Hitlin (2005) found that 70% of American adults and 87% of American adolescents are regularly using the Internet, with over half of these populations accessing the Internet on a daily basis. This survey also found that 31% of those adolescents who access the web have done so to collect health-related information. Gould, Munfakh, Lubell, Kleinman, and Parker (2002) found that one fifth of adolescents reported that they had accessed the Internet at one point or another in the past year to seek help for emotional problems, either through online interaction with other individuals or by seeking out information over the web. However, Gross (2004) found that adolescents appear to use the Internet primarily for social reasons.

The Internet is also a medium through which relationships are formed. Wolak, Mitchell, and Finkelhor (2002) found in their survey of youth between the ages of 10 and 17 that the Internet can foster relationships, that 25% had formed casual online friendships, and that 14% had formed either close friendships or romantic relationships with individuals that they met online. Since time spent online may come at the expense of other activities, some researchers worry that these online relationships may displace other in-person interactions that are important for adolescent development (Subrahmanyam & Lin, 2007). One group of authors classify these online relationships as "weak ties," which they defined as social connections that are easily broken, have infrequent contact for those involved, have a narrow focus, and may come at the expense of developing stronger ties (Kraut et al., 1998). These qualities may have particular significance to those who self-injure as they may potentially be isolating themselves from their peer group because of depression or the desire to conceal their behaviours.

Mesch (2001) found that those people who reported frequent Internet use also reported lower attachment levels to friends. Mesch (2003) demonstrated that a high frequency of Internet use among adolescents can be related to increased negative perceptions of their family relationships. This finding may be especially true in the lives of those who are involved in self-injury communities online, as they may already have difficulties relating to others and excessive online involvement may exacerbate the problem. However, there are discrepancies in the data at large. A study conducted by Subrahmanyam and Lin (2007) found no link between time spent online and the reports of adolescent loneliness or perceived support from friends and family. To understand social interactions and their implications for self-injury, it is necessary to examine what is occurring in these online environments.

SELF-INJURY ONLINE

Due to the anonymity that the Internet affords, along with the shame and marginalization often experienced by those who self-injure, it is suggested that the web may be an ideal environment and method of interaction for those who self-injure (Whitlock, Powers, & Eckenrode, 2006). Indeed, throughout the Internet

these communities appear to flourish, as evidenced by the number of websites, chat rooms, and message boards dedicated to and populated by people who self-injure. There has been controversy as to whether involvement in online self-injury groups are helpful or if they act to reinforce the behaviour by normalizing it as an appropriate coping strategy (Adler & Adler, 2008; Baker & Fortune, 2008; Murray & Fox, 2006; Rodham, Gavin, & Miles, 2007; Whitlock et al., 2006, 2007).

Murray and Fox (2006) conducted research that suggests the majority of members of self-injury groups perceive the groups as helpful. They found that 102 female respondents reported that their online interaction with these groups was beneficial because it was nonjudgemental and they were free to be uncensored. Many responded that when they feel like self-injuring they want to talk to someone, and 7% noted the ease in communication on the message board as it was available at any time and populated with individuals who understand self-injurious behaviours. The majority (73%) of respondents said that their participation in the online group had led to a decrease in their self-injury, while 11% said that their participation was directly related to increases in the behaviour.

Similarly, participants in a study using e-mail interviews reported that they received a number of benefits through websites dedicated to support for self-injury and suicide: empathy, understanding, emotional support, valuable information, advice, and friendship (Baker & Fortune, 2008). These participants often described their participation in such sites as a coping strategy, with some respondents noting that they felt it was more effective than therapy. These self-report data are supported by a recent interpretive phenomenological analysis of content on a large Internet message board that is focused on the perceived function of self-injury in regards to individuals (Rodham et al., 2007). The study found that individuals use the message boards for validation-seeking, crisis support, and venting.

In contrast to the positive perception of many members involved in online self-injury groups, the literature is full of cautions and concerns about the impact of this membership. Whitlock et al. (2006) conducted analysis on 10 major self-injury message boards over a period of 2 months and found themes of self-injury triggers that included depression, sexual abuse, conflict, stress about school or work, concealment issues, addiction, and help-seeking. These triggers coincide with much of the self-reported motivations for self-injury. Based on their survey, Murray and Fox (2006) concluded that some participants, at one time or another, had self-injured in response to material posted to the group but on the whole experienced either a decrease or no change in the self-injuring behaviours as a result of being a part of the group.

Other authors have expressed concern about the prevailing community attitude within such a marginalized group (Baker & Fortune, 2008). The authors feared that group members may experience pressure to endorse prevailing group norms, including those accepting of self-injury that might impede recovery from self-injury. Concerns have also been raised that such group involvement may lead to the experience of "narrative reinforcement," which is "the sharing of similar life stories and interpretations which can normalize and subconsciously justify the use

of self-injury" (Whitlock et al., 2007, p. 1139). Researchers question whether the adolescent drive for belonging and acceptance might inadvertently feed into the self-injurious behaviour (Whitlock et al., 2006).

Supporting this concern, Rodham et al. (2007) noted that the supportive messages of others tended to normalize and minimize the self-injurious behaviour. These messages may appear to inherently accept self-injury as an accessible and appropriate coping strategy for dealing with intolerable emotions and situations. Rosen and Walsh (1989) discussed contagion theory in regard to self-injurious behaviours. Contagion theory states that moods and behaviours can spread throughout groups of people. This effect has been demonstrated in institutions such as hospitals and group homes where the behaviours and moods can exhibit epidemic-like properties (Rosen & Walsh, 1989). It is possible that contagion theory may also play a role in spreading and increasing self-injurious behaviours through the online world. As a result, Rodham et al. (2007) concluded that these websites, while they are often perceived as being helpful by those who use them, may actually be a hindrance to recovery from self-injury.

Adler and Adler (2008) found that some individuals joined multiple groups in order to have different needs met and different identities expressed. For example, these researchers noted that some people would act more as helpers on one group's message board and downplay their own self-injurious behaviours, while on another site's message board, under a different name, they were more likely to be the ones seeking help for themselves. They also found that because of the variable level of moderation between sites, individuals may post on message boards that allow content that may trigger the desire to self-injure when they feel as though they want to be more graphic in their discussion of self-injury (Adler & Adler, 2008). However, these same individuals would not post such material on a site that asked members to refrain from making posts that may trigger such a reaction or response (Adler & Adler, 2008). These findings seem to validate other researchers' concerns that group members could possibly be triggered to self-injure by interacting with and hearing the experiences of those who are actively self-injuring, which highlights the need for moderation of such sites (Rodham et al., 2007).

SELF-INJURY ON FACEBOOK

Facebook is a social networking Internet site that launched in 2004 and has since become the largest social networking site in the world (Facebook, 2009). There are over 800 million active users throughout the world and this number grows daily (Facebook, 2012). The users of this site create personal profiles and can then join networks organized by city, workplace, school, region, and so on in order to connect and interact with people from all over the world including friends, family, and strangers. Recent statistics on Facebook users show that 54.7% of Facebook users are female (iStrategylabs.com, 2010). With regard to age, 10% of all Facebook users are between the ages of 13 and 17, 24.7% of users are between the ages of 18 and 24, and 25% are between 25 and 34 (iStrategylabs.com, 2010).

This means that close to 35% of the population on Facebook is within the age group that has been identified by researchers as those most likely to be engaging in self-injuring behaviours (Favazza, 1996; Klonsky & Olino, 2008).

Facebook has many member-created and -managed groups on thousands of different topics. Members can search the millions of available groups using keywords and become members of as many as they like. These groups are much like profiles in that information and pictures can be posted and shared. There is a *wall* within group pages that functions essentially as a message board on which members can post. These posts can invite interaction from other group members or provide information. Groups have no moderation from Facebook but are loosely supervised by their original creators, who have the ability to remove content at their discretion.

Several studies have examined Internet communities based around self-injury, but previous researchers have focused on websites with variable formats including message boards, forums, and chat groups that have been found through search engines such as google.com or yahoo.com (Adler & Adler, 2008; Rodham et al., 2007; Whitlock et al., 2006, 2007). However, Facebook groups on the topic of self-injury are being widely used by a vulnerable population, and there has not yet been a study on this use or on the implications that these online interactions may have on the offline lives of those who self-injure. Facebook is unique from other Internet communities in that, as the data demonstrate, it is an enormously popular social networking tool for young people (iStrategylabs.com, 2010). By examining this source of uninhibited interaction among those who self-injure on a topic that is often surrounded in secrecy, this study can contribute to the body of knowledge on self-injury.

In summary, there is growing awareness of the prevalence of online communities for people who self-injure. The anonymity of online communication is thought to offer a safe and preferred means for engaging in community and discussion about self-injury (Whitlock et al., 2006). The majority of individuals participating in these communities perceived them as an important coping strategy and source of connection, support, and information (Baker & Fortune, 2008). The participants felt that their participation in the communities led to a reduction in self-injury behaviours (Murray & Fox, 2006). However, researchers have expressed caution that the sense of community surrounding self-injury sufferers may inadvertently serve to reinforce self-injury by portraying it as a normal and acceptable coping strategy (Baker & Fortune, 2008; Rodham et al., 2007; Whitlock et al., 2007). Because of the high likelihood that adolescents and young adults who are being treated for self-injury will turn to online communities for support, this study will examine the content and activity of self-injury groups on the popular social networking site Facebook.

METHOD

A conceptual, multi-valued content analysis was used to examine posts on the four most active self-injury groups on Facebook. This section will briefly outline

the method by which the sample of posts was selected and the content of posts was coded and analyzed.

Sample Identification and Selection

Information was collected through naturalistic observation of data that participants intentionally and willingly submitted to a public domain. Natural observation precluded the need for informed consent as per section 2-C of the Tri-Council Policy Statement (Canadian Institutes of Health and Research, 2005). Likewise, Mann and Stewart (2000) state that by posting a message on a public Internet website, the author implies consent for the public to read and even archive the information it contains without having to seek consent. The study also received approval from the Research Ethics Board of the authors' institution.

For this study, an internal search engine on Facebook groups was used. The units of study were posts made by actively participating members of groups related to self-injury on Facebook in the summer of 2009. A search for Facebook groups using the key words "self-injury," "self-harm," "cutting," and "self-mutilation" yielded over 1,300 results. A convenience sample of the four groups with the highest number of members and member posts—the groups "Self Injury Awareness," "Self-Injury Awareness," "Suicide, Self-Harm, and Depression Awareness & Support," and "Cutting and Self-Harm"—was selected. Each of these groups explicitly states that they are not "pro-self-injury" and asks that their members use the space as a way of finding support and information, not as a platform for promoting self-injury. This study focused on only four groups as a convenience sample to make the amount of data collection more manageable. As well, the number of members in each of these four groups is in the thousands, leading to more posting activity. Group membership beyond these top four groups appears to drop significantly from the thousands to low hundreds, which further demonstrates the popularity of the four groups chosen for this study.

This study was conducted over a 3-month period (May to July 2009). The number of posts that were examined was dependent solely on the activity within the group. In total, the first author observed and coded 998 posts. Any posts that were repeats, such as those posts which duplicated content from a single user either intentionally or unintentionally, were counted only once. As posts were collected, they were numbered and stored in a secure electronic word-processing document. This allowed for collections of a large body of posts that served to further illuminate the findings of this research. Within the four self-injury Facebook groups that were explored, posts were made daily.

Data Analysis

CODING AND QUALITATIVE ANALYSIS

Conceptual content analysis was used to code the data. In conceptual content analysis, concepts are chosen to be examined within a specific text and the presence of these concepts is then tallied and recorded. The term "multi-valued" in this

study refers to the fact that multiple concepts will be examined and quantified. This method is appropriate for this study because its aim is to make "abductive inference from texts to phenomena outside those texts" (Krippendorff, 2003, p. 344). Content analysis also allows for a qualitative description of the data and the use of actual quotes from participants in order to supplement and enrich the data, themes, and inferences.

Any names or identifying information that were given in a post were not recorded, thereby ensuring anonymity. In following the precedent set by similar online studies, this researcher did not contact any of the individuals posting to the group regardless of content posted, including comments made in regards to suicide (Rodham et al., 2007; Whitlock et al., 2006, 2007). Each post was assigned an identity number and either an "M" or "F" noting gender, which could speculatively be identified due to cues in the user's profile picture or user name. As there was no way for researchers to verify an individual's stated gender, analysis of gender will be treated cautiously. Data were collected on a weekly basis over a 3-month period and coded manually. These data were then analyzed for frequency and correlations using Predictive Analytics Software (PAWS) through a binary system indicating the presence and absence of themes within posts.

When choosing the themes for exploration, this researcher reviewed prior research by Whitlock et al. (2006), who conducted a similar study on self-injury online message boards. Their study highlighted themes of *Addiction*, *Triggers*, *Concealment*, and *Help Seeking*. A preliminary review of the material posted within self-injury Facebook groups was then conducted whereby the author selected 50 past posts from each of the four Facebook groups that were to be explored. These posts were then reviewed for similarity in topics. This examination yielded seven additional themes: *Informal Support Offers, Information, Offline Help Seeking, Suicide, Identity, Community,* and *Venting Without the Request for Help*. Originally, a "Miscellaneous" category was created to account for all unanticipated observations. Once the study began, however, this researcher found important yet unanticipated posts that warranted the creation of another category: *Trolling and Flaming. Trolling* was the term used within one of the Facebook groups to define intentionally provoking and attacking posts. According to Alonzo and Aiken (2004), the proper term for these behaviours is actually *flaming*: "hostile intentions characterized by words of profanity, obscenity, and insults that inflict harm to a person or an organization resulting from uninhibited behavior" (p. 205). Trolling is described by Herring, Job-Sluder, Scheckler, and Barab (2002) as "luring others into pointless and time-consuming discussions" (p. 5). It could be argued that the posts in question had aspects of both flaming and trolling; however, the Facebook group used only the term *trolling* or *trolls* to describe the posts. Flexibility in categorization is appropriate in content analysis, as long as the changes to the code book are used on the entire set of data (Krippendorff, 2003).

In total there were 13 categories. Within each of the 12 main categories were subcategories for the specific ways the themes were expressed within the posts. These categories and subcategories were each assigned numbers in order to develop

a code book (for example, the category of *Addiction* was labelled "1" with all sub-categories following as "1.1, 1.2, 1.3 …"). The code book described rules for how to quantify and record the different categories found in the posts and was used by the researcher as well as independent coders for coding and reliability checks. Often, the content within these posts could be categorized under more than one theme. When this occurred, this researcher coded the data in the corresponding categories and did not limit the coding to one theme or subcategory per post.

STATISTICAL ANALYSIS

The primary method of data analysis for this study was the examination of frequency of themes identified in the posts. Efforts were made to augment intercoder reliability through the operationalization of terms and instructions given within the code book. A random sample consisting of 10% of all collected posts was given to a colleague that was trained in the coding method (Krippendorff, 2003). This coder was considered independent as she had no knowledge of the study outside of the instructions provided by the study's authors, the directions within the code book, and the general information on self-injury provided by the authors' literature review. Intercoder reliability was determined by calculating the percentage of agreement between the codes assigned by the primary and secondary coder. Separate coefficients were calculated for both primary and subcategory agreement.

RESULTS

Demographics and Data Characteristics

During the 3-month period in which the Facebook groups were examined, the researcher observed and coded 998 posts. Because there was no direct interaction by researchers with group members, information about those posting was speculative and gained from observing profile pictures, user names, and autobiographical information spontaneously provided by those writing posts. It appeared that of the individuals posting, 77% were female and 23% were male. Posts were made from geographical locations all over the world including Canada, the United States, Australia, the United Kingdom, various parts of Europe, and the Middle East. Participants appeared to span ages across adolescence, young adulthood, and middle age, which was consistent with statistics on Facebook users described previously (iStrategylabs.com, 2010).

Coding Themes

A total of 12 primary thematic categories (plus a Miscellaneous category) were identified from the total of 998 posts and are listed in Table 1 in order of decreasing frequency. The intercoder reliability within categories was .86 and the intercoder reliability within subcategories was .84. Intercoder reliability coefficients over .80 are considered to demonstrate a good level of reliability (Krippendorff, 2003), supporting the rigour and reliability of the coding for this study. Table 2 displays prominent subcategories across primary categories.

Table 1
Category Totals

Code	Frequency ($n = 998$)	% of total posts
Informal offers of support	222	22.2
Trolling and flaming	216	21.6
Community	183	18.3
Venting	180	18.0
Miscellaneous	151	15.1
Addiction	108	10.8
Triggers	61	6.1
Offline help seeking	56	5.6
Suicidal ideation	50	5.0
Online help seeking	41	4.1
Informative	30	3.0
Concealment	29	2.9
Identity	9	0.9

Table 2
Most Prominent Subcategories

Primary category	Subcategory	Frequency ($n = 998$)	% of total posts
Trolling and flaming	Response to comments made by people condemning, mocking, or encouraging self-injury or suicide	168	16.8
Venting	Discussion of personal issues without suggestion of intent to self-injury	112	11.2
Informal offers of support	Group members posting direct offers of help or support to specific members	110	11.0
	Group members posting supportive and encouraging comments with no specific individual in mind	48	4.8
Addiction	Discussing how many days they have gone without self-injuring and/or giving details on their anniversaries of quitting the self-injurious behaviour	59	5.9
Community elements	Introductions/welcomes/greetings from groups' members	51	5.1
	Requests to chat on Facebook	47	4.7

The most frequent primary category was *Informal Offers of Support*, representing 222 posts (22.2%). These posts involved group members offering supportive or encouraging comments, listing distraction methods or alternatives to cutting, encouraging distressed members to seek offline support, and answering questions. Posting direct offers of support to specific members ("It's ok ____, you haven't failed, you just need to keep trying again! If you keep trying to stop that isn't

failure") and posting supportive and encouraging comments with no specific individual in mind ("I am proud of all of you on here. You are never alone. Lots of love to you all") were prominent, accounting for 110 (11.0%) and 48 (4.8%) posts respectively.

Trolling and Flaming was the next most frequently coded primary category, coded in 21.6% (216) of posts. Of these posts, 30 (3.0%) were comments mocking or condemning the group ("Bloody emos. Go cry!"); 8 (0.8%) made positive statements about or encouraged self-injury ("The best place to slash is not the wrists but the veins adjacent to your elbows! Happy slashing peeps and remember to switch off your phones"); 10 (1.0%) were sharing self-injury techniques ("Hang yourself, it's easier. There are websites giving correct heights from which to do it according to your weight"); and a full 168 (16.8%) were responses to comments made by those ridiculing those who self-injure ("You think it's funny to take the piss out of us! Don't you realise the damage you could do by posting this shit!").

Posts reflecting a sense of *Community* in the group represented 183 posts (18.3%) and included welcomes, greetings, and introductions; defending of other members; praising or thanking the group; mentions of similarity, relatedness, or understanding; and requests to be added as a friend or to chat on Facebook. Introductions, welcomes, and greetings were a prominent theme, accounting for 51 posts (5.1%; e.g., "Hi, welcome to the group!").

Under the theme *Venting*, 180 posts (18.0%) were coded. These comments were quite widespread and appeared to share a common purpose of fulfilling a need to share information without an expectation of response and included discussion of personal issues, disclosure of past self-injurious behaviour without mention of trigger, negative self-talk, and announcement of the urge or intention to self-injure without help seeking. Discussion of personal issues unrelated to self-injury was a prominent theme in the venting category, accounting for 112 posts (11.2%; e.g., "Today is really bad … when it comes, it feels like a fog lowering onto and over me").

Of the total posts, 108 (10.8%) fit into the *Addiction* category. These included use of addictive terminology such as "need," "urge," "craving," "compulsion," "impulse," relapse or "slip up," "addiction," "remission," or "recovery," and discussions of multiple attempts to quit. References to days without self-injuring or to anniversary dates since last episode of self-injury were a prominent subcategory, accounting for 59 posts (5.9%; e.g., "I am doing fine … I'm clean for 6 days").

Posts that referenced *Triggers (*or motivations) for self-injury accounted for 61 posts (6.1%). They included mentions of conflict with significant others; depression or other mental illness; school or work issues; negative emotions (e.g., loneliness, guilt, sadness, disappointment); depersonalization; physical, sexual, or verbal abuse; self-punishment; desire for control; and externalizing of pain (e.g., "My family is going through some rough times right now and it's so hard for me not to self-injure," "I've suffered from depression and anxiety since childhood and can't see a way out," and "My husband is on police bail for sexually abusing and raping me for 18 years").

Posts coded for *Offline* and *Online Help Seeking* represented 56 posts (5.6%) and 41 posts (4.1%), respectively. Elements of offline help seeking refer to comments indicating resources that an individual has accessed, including professional therapy, medications that are being taken, in- or out-patient treatment programs, informal help or support from significant others, and religious or spiritual help. Online help seeking elements included asking other members for support, distraction, or advice, and asking group members specific questions (e.g., "Is anyone around? Feeling really bad right now").

Posts involving *Concealment* issues represented 29 posts (2.9%) and included comments referring to the need to conceal self-injury behaviours from friends and family, frustration at needing to hide scars, dislike of scars, anxiety about concealment, and inquiries about scar management (e.g., "I feel so judged by the world who put me down becuz [sic] all my scars"). Fifty posts (5.0%) were coded for themes of *Suicidal Ideation*. These posts included expressions of suicidal attitudes (a specific desire for death), details or plans for suicide, ominous goodbyes to fellow group members, and indirect indications of intent such as comments about ending it all, giving up on life, and not being able to take it anymore (e.g., "I am going to kill myself once I have secured the money from the house for my family").

Thirty posts (3.0%) included *Informative* elements. Informative elements involved providing other members with information, including provision of information about face-to-face self-injury support groups, support organizations, self-injury events and self-injury-related books, as well as provision of links to online self-injury information, support websites, and other self-injury or mental illness-related web-based groups (e.g., "http://www.ctrinstitute. com/resources. html articles and handouts are accessible online … I'm not with this organization, but was at one at their workshops"). Nine posts (0.9%) were coded under the category of *Identity*, referring to posts related to an individual's incorporation of self-injury into their self-identity. These included references to oneself as a "cutter," "burner," or "self-harmer" (e.g., "I am a recovering cutter").

The final *Miscellaneous* category had subcategories for unclassifiable or unrelated posts. This category accounted for 151 posts (15.1%). For example, "Where are you living in the world?" was coded as *unclassifiable* as it was related to group dynamics but did not fit into a specific category. *Unrelated* posts were generally unrelated to the group or discussion about self-injury such as "I'm going on holiday next week" or "What is a council estate?"

DISCUSSION

It is clear that there are contrasting and possibly conflicting views on the helpfulness or harmfulness of participating in these online support communities. On the one hand, many of those contributing to these communities seemed to feel that these interactions are a positive resource in their lives that provides understanding and encouragement in ways that their offline lives did not. In fact, 3.6% of the total posts were praising or thanking the group. On the other hand, one of

the most common posts observed was a backlash from verbal attacks from others who were purposefully trying to provoke a vulnerable population (16.8%). This level of response seems to speak to the impact these attacks had on many of the individuals involved in the group, and one must wonder about the consequences for their emotional well-being but also the resulting group dynamics. While the large majority of individuals were trying to recover or abstain from the impulse to self-injure, the topic of self-injury was forefront, normalized, and an inherent part of group membership. The observations of this article raise an obvious question: Is this an environment that is conducive to recovery or does it unintentionally perpetuate self-injury as a viable coping technique?

Helping?

There is much evidence within the present study, as well as in previous research, that online self-injury support groups are powerful avenues of connection for those struggling with self-injuring behaviours. In such groups, individuals can gain connection, understanding, and hope (Barak & Dolev-Cohen, 2006; Murray & Fox, 2006; Whitlock et al., 2006, 2007). To their members these groups represent a unique opportunity, as self-injury is a highly stigmatized and hidden activity and the individuals interacting within these groups may understand each other in ways that family, friends, or a therapist may not be able to. For example, one member poignantly stated: "We don't really know each other but we know where we have been." This level of acceptance may allow people to be more open and honest about their experiences, perhaps leading to a better understanding of their own feelings. Group members often received encouragement to keep trying to abstain from self-injury as well as to seek help from professionals, prescribed medications, and support groups. It should be noted that it appeared that some individuals had abstained from self-injury anywhere from months to even years but remained members of the group in order to provide advice, support, and hope to those who were still self-injuring. As an example, one member wrote, "Believe me, recovery is possible. I'm proof."

Harming?

The most obvious way that the Facebook group may have been harmful for its members is the exposure to trolling and flaming. Just as the anonymity of the Internet helps minority groups feel safer when discussing personal issues, it also lowers inhibitions, making harassment and verbal abuse easier than it may be in offline society (Alonzo & Aiken, 2004; Donath, 1999; Herring et al., 2002). These trolling posts were unanticipated by the researchers, and a new category had to be developed in order to capture them and the many posts responding to these attacks. Given the vulnerability of the population that these malevolent posts were directed at, there is potential for serious negative effects on the group members exposed to these attacks. Posts that mocked, teased, or maliciously provoked the online community made up 3.0% of the total. Encouragement for suicide or self-injuring behaviours or technique sharing, most of which appeared

to be another avenue of trolling, made up 1.8% of the posts. However, it is important to note that the actual percentage is likely much higher, as many of the posts were deleted by the group's moderator before they could be coded and the material within them was only alluded to within subsequent posts responding to the attack. Many of the posts created by these individuals were graphic, personal, and intentionally triggering. Persistence was another surprising factor as many people who had posted inappropriate material were banned from a group, only to come back under a different name and continue to make offensive posts. Previous research by Alonzo and Aiken (2004) suggests that the majority of participants who engage in trolling or flaming behaviours are male. Although the present study could not verify self-reported genders of posters, observations appeared consistent with these previous findings.

Responses to these trolling posts made up 16.8% of total posts. Many rushed to defend others who had been singled out, defend the group, or defend self-injurers as a whole. Some were motivated to launch verbal attacks of their own. Others gave notice of leaving the group, explaining that it was becoming more problematic than helpful. Donath (1999) suggests that trolling and flaming behaviours are more likely to target non-mainstream groups that could be seen as vulnerable and that such posts can cause a loss of trust that can lead individuals to leave groups or to refrain from posting. A surprising 21.6% of the total posts within the study during the 3-month investigation period were focused on either antagonistic or defensive posts, essentially feeding into the described goal of the trolling behaviour to provoke responses (Herring et al., 2002).

Moderation of these groups appeared to take a great deal of effort in order to keep up with the volume of inappropriate posts. The moderator appeared to be entirely absent during the first 3 weeks of the study, and it was during this time that the majority of trolling and flaming posts were made. During the 3-month period, after weeks of malicious posts, the group which was most attacked changed from public to private and all membership had to be approved in order for members to view material or make posts. This change greatly reduced inappropriate posts, but occasional verbal abuse still occurred. Moderation and administration support appear to be important factors in keeping these online spaces safe for vulnerable populations. However, full-time moderation is likely an unrealistic goal.

During the period of time in which the majority of these malicious posts were made, the first author noticed two other types of posts that increased in frequency: posts that described being triggered and posts that offered direct or indirect encouragement and support. These compensatory posts, combined with the zeal in which individuals attempted to defend the group and its members, speak to a strong sense of *in-group* and *out-group*. Although the feeling of belonging to a group may be beneficial for many individuals who are engaging online, one must wonder how this pattern extends into their offline lives. With the repeated demonstrations of such negative and hurtful attitudes by out-group trolls toward those who self-injure, individuals may generalize this feeling of in-group versus

out-group to the larger world. This may decrease chances of disclosure and increase concealment and isolation.

Beyond the negative impact of trolling and flaming behaviours, there may be other negative consequences to group members' offline lives. Nie and Hillygus (2002) have developed a theory of displacement for Internet use which states that time is a finite quantity. Thus, time spent on the Internet must come at the expense of time spent on an offline physical or social activity. These offline activities are considered important for a young person's development and emotional health (Subrahmanyam & Lin, 2007). Baker and Fortune (2008) were concerned about the strong expression of community within a marginalized group like self-injurers. As well, many authors have raised concerns about the potentially normalizing effects of online self-injury group and message boards (Adler & Adler, 2008; Baker & Fortune, 2008; Murray & Fox, 2006; Rodham et al., 2007; Whitlock et al., 2006, 2007). Group membership may encourage an individual to follow prevailing group norms and to maintain self-injury in order to preserve their sense of belonging, thus having the potential to impede recovery.

A potential pattern of unintentional positive reinforcement of self-injurious behaviour was also observed. Often, when individuals are making either direct or indirect posts about the desire to self-injure or otherwise harm themselves, they received comments from other group members. Those who made posts that they were doing well received far less attention from group members. This may encourage individuals who are seeking interaction to obtain it through persistent threats or acts of self-injury. Linehan (1993) notes that "the consequences of a behaviour affect the probability of the behaviour's occurring again" (p. 294). As part of her treatment guidelines for self-injury, Linehan stresses the need for contingency procedures in which a therapist avoids unintentionally providing encouragement or reward for ineffective behaviours like self-injury. The people within this group are quite likely unaware that their attention and compassion toward repeated acts of self-injury may actually be reinforcing the behaviours.

It is also important to note that the majority of supportive interactions within the group are coming from individuals who either are actively self-injuring, are attempting to abstain, or classify themselves as "in-recovery." As mentioned earlier, it was not uncommon to see individuals offer their support to others and later request support for themselves, sometimes within the same day. This leads one to wonder if "helping" individuals within the group may in fact be triggering, since it is a discussion of thoughts, feelings, and behaviours that they themselves may have trouble coping with.

A formal conclusion on the helpfulness versus harmfulness of involvement in an online self-injury support group, such as the ones on Facebook, is not the intent of this study. However, it is important for clinicians to be aware of both sides of this involvement in order to help clients assess the pros and cons of such involvement for themselves. Given the widespread involvement in these groups, it is important for clinicians to explore such online involvement as part of developing a treatment plan.

IMPLICATIONS FOR TREATMENT

Because self-injury is relatively widespread, particularly among clinical popula-
tions, many counsellors will likely work with an individual who engages in self-
injury at some point in their careers (Favazza, 1996). This individual may have ties
to online support groups. Given the uncertain therapeutic nature of such online
involvement, counsellors should ask questions about their clients' involvement,
including questions about the frequency with which they are using the site(s),
their level of interaction (whether they are making posts or just observing), and
the perceived benefits or downfalls of these interactions. Clinicians should assist
their clients in becoming more mindful of the personal effects of their group
involvement as well. For example, a clinician might ask the client how they feel
after spending time interacting or observing the group. Better or worse? Calm or
triggered? Hopeless or hopeful? Are there areas of their lives that are neglected as
a result of their online interactions and, if so, what are the consequences? As with
most aspects of a client's life, the choice is ultimately up to the client. Counsellors
can aid clients in assessing how they are using these online relationships and how
their involvement may impact recovery. Clinicians should promote awareness of
the personal impact of group involvement and educate their clients about poten-
tially damaging interactions on such sites. It may be helpful to explore what needs
a client feels are being met through the group and to build resources in these areas
to fulfill the need in their face-to-face world. In some cases, a clinician may also
need to examine the perceived costs of leaving such a group.

LIMITATIONS AND FUTURE RESEARCH

This study was limited to an investigation of participants in certain self-injury
support groups on Facebook, and the results cannot be generalized to the wider
population of individuals who self-injure nor can the results be representative of
all online self-injury support groups. This study reflects only those individuals
who were active on the Facebook groups of interest during this study's duration.
Thus, effects on potential observers who had not contributed to the posts within
the groups were not addressed. As well, firm conclusions about the therapeutic
benefits and downfalls of these or other self-injury support groups cannot be
drawn from this study, as it was exploratory in nature and examined a relatively
small sample of groups over a short amount of time. Lastly, because of Facebook's
design, participant demographics could not be collected, so it is not possible to
verify genders, age groups, or other demographic characteristics represented in
these data.

The present study focused on the observation and interpretation of individuals'
posts on Facebook and involved no direct interaction with participants. While this
was beneficial in terms of observing candid responses, the interpretation of these
responses is limited without consulting the individuals making the posts. A future
study that involves interviewing group members on their personal experiences

within self-injury Facebook groups or other online self-injury support groups may bring depth to the findings that this study did not capture. An important issue that still requires a great deal of examination within psychological literature is the issue of online harassment via flaming and trolling, particularly among vulnerable populations. More research and information is needed to understand how these behaviours affect group dynamics, posting behaviours, and how (and if) these effects extend to individual's offline lives.

References

Adler, P., & Adler, P. (2008). The cyber world of self-injurers: Deviant communities, relationships, and selves. *Symbolic Interaction*, *31*(1), 33–56. doi:10.1525/si.2008.31.1.33

Akyuz, G., Sar, V., Kugu, N., & Doğăn, O. (2005). Reported childhood trauma, attempted suicide and self-mutilative behaviour among women in the general population. *European Psychiatry, 20,* 268–273. doi:10.1016/j.eurpsy.2005.01.002

Alonzo, M., & Aiken, M. (2004). Flaming in electronic communication. *Decision Support Systems*, 36, 205–213. doi: 10.1016/S0167-9236(02)00190-2

Baker, D., & Fortune, S. (2008). Understanding self-harm and suicide websites: A qualitative interview study of young adult website users. *Crisis, 29,* 118–122. doi:10.1027/0227-5910.29.3.118

Barak, A., & Dolev-Cohen, M. (2006). Does activity level in online support groups for distressed adolescents determine emotional relief? *Counselling and Psychopathology Research, 6,* 186–190. doi:10.1080/14733140600848203

Briere, J., & Gil, E. (1998). Self-mutilation in clinical and general population samples: Prevalence, correlates, and functions. *American Journal of Orthopsychiatry, 68,* 609–620. doi:10.1037/h0080369

Canadian Institutes of Health and Research. (2005). *Tri-council policy statement: Ethical conduct for research involving humans.* Ottawa, ON: Public Works and Government Services Canada.

Connors, R. (1996). Self-injury in trauma survivors: 1. Functions and meanings. *American Journal of Orthopsychiatry, 66,* 197–206. doi:10.1037/h0080171

Conterio, K., Lader, W., & Bloom, J. K. (1998). *Bodily harm: The breakthrough healing program for self-injuries.* New York, NY: Hyperion.

Cross, L. (1993). Body and self in feminine development: Implications for eating disorders and delicate self mutilation. *Bull Menninger Clinic, 57,* 41–68. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/8443617

Donath, J. (1999). Identity and deception in the virtual community. In M. A. Smith & P. Kollock (Eds.), *Communities in cyberspace* (pp. 29–59). London, UK: Routledge.

Facebook. (2012). *Press room.* Retrieved from http://www.facebook.com/press/info.php?statistics

Favazza, A. R. (1992). Repetitive self-mutilation. *Psychiatry Annuals, 22,* 60–63.

Favazza, A. R. (1996). *Bodies under siege: Self-mutilation and body modification in culture and psychiatry* (2nd ed.). Baltimore, MD: John Hopkins University Press.

Favazza, A. R., & Rosenthal, R. J. (1990). Varieties of pathological self mutilation. *Behavioural Neurology, 3,* 77–85.

Froeschle, J., & Moyer, M. (2004). Just cut it out: Legal and ethical challenges in counselling students who self-mutilate. *Professional School Counselling, 7,* 231–235. Retrieved from http://www.schoolcounselor.org/

Gould, M. S., Munfakh, J. L. H., Lubell, K., Kleinman, M., & Parker, S. (2002). Seeking help from the Internet during adolescence. *Journal of the American Academy of Child and Adolescent Psychiatry, 41,* 1182–1189. doi:10.1097/00004583-200210000-00007

Gratz, K. L. (2001). Measurement of deliberate self-harm: Preliminary data on the deliberate self-harm inventory. *Journal of Psychopathology and Behavioural Assessment, 23,* 253–263. doi:10.1023/A:1012779403943

Gross, E. F. (2004). Adolescent internet use: What we expect, what teens report. *Journal of Applied Developmental Psychology, 25,* 633–649. doi:10.1016/j.appdev.2004.09.005

Haines, J., & Williams, C. L. (2003). Coping and problem solving of self-mutilators. *Journal of Clinical Psychology, 53*(2), 177–186. doi:10.1002/jclp.10202

Herpertz, S., Sass, H., & Favazza, A. (1997). Impulsivity in self-mutilative behaviour: Psychometric and biological findings. *Journal of Psychiatric Research, 31*(4), 451–465. doi:10.1016/S0022-3956(97)00004-6

Herring, S. C., Job-Sluder, K., Scheckler, R., & Barab, S. (2002). Searching for safety online: Managing "trolling" in a feminist forum. *Information Society, 18*(5), 371–383. doi:10.1080/01972240290108186

iStrategylabs.com. (2010, June 8). Facebook demographics and statistics report June 2010 – Privacy concerns don't stop growth. Retrieved from http://www.istrategylabs.com/2010/06/facebook-de-mographics-and-statistics-report-june-2010-%E2%80%93-privacy-concerns-dont-stop-growth/

Klonsky, E. D., & Olino, T. M. (2008). Identifying clinically distinct subgroups of self-injurers among young adults: A latent class analysis. *Journal of Consulting and Clinical Psychology, 76,* 22–27. doi:10.1037/0022-006X.76.1.22

Kraut, R. E., Patterson, M., Lundmark, V., Kiesler, S., Mukhopadhyay, T., & Scherlis, W. (1998). Internet paradox: A social technology that reduces social involvement and psychological well-being? *American Psychologist, 53*, 1017–1032. doi:10.1037/0003-066X.53.9.1017

Krippendorff, K. (2003). *Content analysis: An introduction to its methodology* (2nd ed.). Philadelphia, PA: Sage.

Laye-Gindhu, A., & Schonert-Reichl, K. A. (2005). Nonsuicidal self-harm among community adolescents: Understanding the "what's and "whys" of self-harm. *Journal of Youth and Adolescence, 34,* 447–457. doi:10.1007/s10964-005-7262-z

Lenhart, A., Madden, M., & Hitlin, P. (2005). *Teens and technology: Youth are leading the transition to a fully wired and mobile nation.* Retrieved from http://www.pewinternet.org/pdfs/PIP_Teens_Tech_July2005web.pdf

Linehan, M. M. (1993). *Cognitive-behavioral treatment of borderline personality disorder*. New York, NY: Guilford Press.

Mann, C., & Stewart, F. (2000). *Internet communication and qualitative research: A handbook for researching online.* London, UK: Sage.

Mesch, G. S. (2001). Social relationships and Internet use among adolescents in Israel**.** *Social Science Quarterly, 82,* 329–340. doi:10.1111/0038-4941.00026

Mesch, G. S. (2003). The family and the Internet: The Israeli experience. *Social Science Quarterly, 84,* 1038–1050. doi:10.1046/j.0038-4941.2003.08404016.x

Murray, C. D., & Fox, J. (2006). Do internet self-harm discussion groups alleviate or exacerbate self-harming behaviour? *Australian e-Journal for the Advancement of Mental Health, 5,* 1–9. doi:10.5172/jamh.5.3.225

Nie, N., & Hillygus, D. (2002). The impact of internet use of sociability: Time-diary findings. *IT & Society, 1*(1), 1–20. doi:10.1002/9780470774298

Nixon, M. K., Cloutier, P., & Jansson, S. M. (2008). Nonsuicidal self-harm in youth: A population-based survey. *Canadian Medical Association Journal, 178,* 306–312. doi:10.1503/cmaj.061693

Rodham, K., Gavin, J., & Miles, M. (2007). I hear, I listen, I care: A qualitative investigation into the function of a self-harm message board. *Suicide and Life Threatening Behaviour, 37,* 422–430. doi:10.1521/suli.2007.37.4.422

Rosen, P. M., & Walsh, B. W. (1989). Patterns of contagion in self-mutilation epidemics. *American Journal of Psychiatry, 146,* 656–658. Retrieved from http://ajp.psychiatryonline.org/cgi/content/abstract/146/5/656

Ross, S., & Heath, N. (2002). A study of the frequency of self-mutilation in a community sample of adolescents. *Journal of Youth and Adolescence, 1,* 67–77. doi:10.1023/A:1014089117419

Simeon, D., & Favazza, A. (2001). Self-injurious behaviours, phenomenology and assessment. In D. Simeon & E. Hollander (Eds.), *Self-injurious behaviours, assessment and treatment* (pp. 117–148). Washington, DC: American Psychiatric Association.

Simpson, C. A., & Porter, G. L. (1981). Self mutilation in children and adolescents. *Bull Menninger Clinic, 45,* 428–348. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/7343020

Stone, J. A., & Sias, S. M. (2003). Self-injurious behavior: A bi-modal treatment approach to working with adolescent females. *Journal of Mental Health Counseling, 25*, 112–125. Retrieved from http://amhca.metapress.com/openurl.asp?genre=article&issn=1040-2861&volume=25&issue=2&spage=112

Subrahmanyam, K., & Lin, G. (2007). Adolescent on the net: Internet use and well-being. *Adolescence, 42*(168), 659–675. Retrieved from http://www.cdmc.ucla.edu/KS_Media_biblio_files/kaveri_lin_2007.pdf

Tantam, D., & Whittaker, J. (1992). Personality disorder and self wounding. *British Journal of Psychiatry, 161,* 451–464. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/1393332

Van der Kolk, B. A., Van der Hart, O., & Marmar, C. (1996). Dissociation and information processing in posttraumatic stress disorder. In B. Van der Kolk, A. C. McFarlane, & L. Weisaeth (Eds.), *Traumatic stress: The effects of overwhelming experience on mind, body, and society* (pp. 155–181). New York, NY: Guilford Press.

Walsh, B. W. (2006). *Treating self-injury: A practical guide*. New York, NY: Guilford Press.

White, V. E., Trepal-Wollenzier, H., & Nolan, J. (2002). College students and self-injury: Intervention strategies for counsellors. *College Counselling, 5,* 105–113. Retrieved from http://web.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=22&hid=125&sid=94fe42b1-a3d8-4736-9416-d44e3d47f06f%40sessionmgr114

Whitlock, J. L, Lader, W., & Conterio, K. (2007). The Internet and self-injury: What psychotherapists should know. *Journal of Clinical Psychology in Session, 63*(11), 1135–1143. doi:10.1002/jclp.20420

Whitlock, J. L., Powers, J. L., & Eckenrode, J. (2006). The virtual cutting edge: The Internet and adolescent self-injury. *Developmental Psychology, 42*(3), 407–417. doi:10.1037/0012-1649.42.3.407

Wolak, J., Mitchell, K., & Finkelhor, D. (2002). Close online relationships in a national sample of adolescents. *Adolescence, 37,* 441–455. Retrieved from http://unh.edu/ccrc/pdf/jvq/CV50.pdf

About the Authors

Kendra Niwa graduated from the Adler School of Professional Psychology and is now a Registered Clinical Counsellor at Act 2 Child and Family Services as well as at Hope Stone Counselling in British Columbia.

Michael Mandrusiak is a Core Faculty member and the Director of Training and Community Service at the Adler School of Professional Psychology, Vancouver campus, British Columbia.

Address correspondence to Michael Mandrusiak, Adler School of Professional Psychology, Suite 1200 West Georgia St., Vancouver, BC V6E 3V7; e-mail <mmandrusiak@adler.edu>