
The Characteristics of Pro-Ana Community

Meyran Boniel-Nissim, Ph.D.¹ Yael Latzer, DSc.²

¹Faculty of Education, University of Haifa, Israel

²Faculty of social welfare and health sciences, University of Haifa, Israel

Eating Disorders Clinic, Psychiatric Division, Rambam Medical Center Haifa, Israel

Abstract

Pro-Ana, websites are designed to promote and support Anorexia Nervosa (AN). Common features of these websites include forums and chat rooms, tips and tricks, ‘thinspirations’, as well as links to other Pro-Anorexia websites. One of the most common and disconcerting aspects of these websites is the detailed instructions for initiating and maintaining the illness, AN. Pro-Ana members join a special target-based virtual community in order to encourage one another in losing weight and creating a social environment that does not denounce self-starvation, but rather support and strengthens the disordered behavior. The purposes of this chapter are to characterize Pro-Ana community, to try to understand the motivations to engage it and accordingly to suggest implication for therapists and researchers.

Keywords: Anorexia Nervosa, Pro-Ana, Internet websites, self-help, eating disorders

Introduction

Eating disorders (ED) are mental and psychological disorders associated with impaired eating behaviors, a distorted body image and an obsession with food, body shape and weight (1). Many women develop abnormal and unhealthy eating behaviors in order to live up to cultural ideal of thinness. This ideal is both widely and intensively expressed and reinforced through family, social, and culture frameworks. This phenomenon is known to cross various population borders, including status, nationality, origin and gender (2, 3).

Although premorbid personal conditions are needed for developing eating disorders, mass media in itself has extensive influence. The socio-cultural perception of beauty is stressed in mass media: in articles on beauty and diet in women's journals; in advertisements for hunger depressants and low-calorie food; and in deliberate negative attitude towards overweight people and gain weight. Thus, women are exposed from various directions to the myth affirming that beauty, success and self-worth are depending on a thin body (3, 4).

Studies found influence of mass communication such as written media (newspapers and magazines) and audio communication (movie, television and radio) on the emergence of eating disorders (5, 6, 7). In the past decade, the Internet has become a significant communications network for incorporating viewer channels, advertisements and databases. The network is available to everyone and an attractive tool to use, and therefore requires separate examination concerning to the eating disorders field.

The Internet and Eating Disorders

The Internet serves as an invaluable resource for individuals and provides them with a plethora of information and resources. The Internet constitutes a combination of social interaction and transference of acceptable ideas in mass communication. Therefore, the Internet has the power of greatly influence on its users. Those have an infinite number of possibilities to obtain information and connect to social networks, both familiar and not, positive and negative. As Norris, Boydell, Pinhas, and Katzman (8) suggest the Internet provides individuals with access to information on a variety of medical issues, including eating disorders; Search on the Internet for “Anorexia Nervosa” reveals an abundance of information is available.

Obtaining health information on the Internet is popular. A survey taken in the United States in 2005 revealed that nine out of ten respondents are searching the web for health information. There is a significantly rising interest in subjects related to dieting and thinness, 51% in 2004 as opposed to 44% in 2002 (9). Technically, searching for information related to body weight and nutrition through search engines usually generates sites related to dieting. In this case, searching for information on losing weight can reveal, unintentionally, information related to destructive ways to lose weight such as the Pro-Anorexia websites. These websites are designed to promote and support AN. The combination of pressure to lose weight, availability of information on the Internet and the ability to translate theory into practice with fast results, can be dangerous, especially for those who are prone to low self-esteem and are looking for quick solutions (8).

It's important to note that the ability to receive recommendations and ideas on how to lose weight for those suffering from AN is not a result of the Internet. In the past, those who were interested could get information from magazines,

autobiographical books of women who suffered from AN, as well as from medical psychiatric and diet literature. Another source was support groups of recovered eating disorder individuals. Even so, the Internet reinforced this phenomenon and expanded the boundaries of the legitimate community for women with eating disorders who are not interested in treatment (10, 11, 12).

On the Internet because of the freedom to write and advertize, as well as the lack of editing and enforcement, every message is legitimate. Therefore, freedom of expression does not only characterize the positive side of the Internet, but it is also an effective and powerful mean with a negative effect. In particular it may affect on those who are in the process of forming their identity, seeking answers, or predisposed to mental (13). This is an important cross-road, especially for a teenager girl who is in the early stages of developing an eating disorder, which is characterized by a secretive and reclusive behavior.

Teenagers using the Internet

Adolescence is an age with a series of continuous dramatic transitions and adjustments on the physiological, endocrinal and neural level, as well as the psychological, developmental, mental and cognitive level. At the same time, there are changes in other areas of life, for example, within the social and family environment. Naturally, these changes manifest themselves in the adolescents' eating habits weight and shape concern. Beyond physiological growth and development, the two major objectives during the adolescence phase are independence and identity construction. At this stage, the adolescent is in the process of building his physical, affective and functional foundation in preparation for adulthood. The process presents itself in almost every area of the adolescent's life, with parents on one side and the peer group, with all its demands, on the other. The adolescents need to detach themselves from

familiar beliefs and opinions. In addition, they begin to rely less on parents while at the same time deal with the demands that the adolescence period presents in a responsible and independent manner. At a later stage, the construction and formalization of a mature identity occurs. The adolescent is required to be responsible, and to acquire the necessary skills needed to integrate a perception of the world that takes into consideration the future. In addition, the adolescent takes essential steps in order to deal with the adult world. This is reflected in the adolescent's autonomy concerning eating that may lead to ED (14).

Teenagers use the Internet very frequently and find it as a convenient place to connect their peer group. Farther, the Internet is a comfortable arena for clarifying and building one's personal identity (15). Communication via the Internet, based mainly on text, allows the individual to "project" oneself into cyberspace, express sides of one's personality in an authentic way (16). The anonymity, invisibility, the non-verbal indications and the absence of eye-to-eye contact, all allow one to a quick reveal oneself with nearly no restraint, a phenomenon known as "Online Disinhibition Effect". Thus, the Internet characteristics allow greater self disclosure, sometimes even faster than face-to-face communication (17). While the ability to turn directly to others and openly apply to the disordered eating is frightening in the physical world, it is legitimate and easy to fulfill on the Internet. The fear of criticism and judgment of one's lifestyle decreases because of the anonymity and invisibility that characterize the Internet (18).

Fright from prejudice push the young girl to turn to more creative ways of getting support and finding a sense of belonging in a virtual community. Turning to the Internet represents a junction; while surfing the web, one can go in a certain direction and find information that connects eating disorders with Pro-Ana, while

taking another path might present him with information that connects eating disorders with treatment and recovery. The average age of participants in Pro-Ana sites is 16.7. Since eating disorders are common among young teenage girls, it's possible that these sites attract high risk adolescent girls (19).

Pro-Ana Community

Pro-Ana websites are Internet sites commonly run by individuals with an eating disorder. On these websites, participants provide nonjudgmental support for other individuals who are currently engaged in an eating disorder and not in recovery (10). Members of this community relate to EDs as a conscious choice and as a lifestyle, but not as a pathological illness that demands treatment. Research has shown that one of the most permanent characteristics of those suffering from ED and in particular AN is denial that a problem exists. Denial typically accrues throughout the entire course of treatment but is most pronounced in the early stages of the illness and in particular among those with AN. The illness considers being egosyntonic in its manner (20).

Pro-Ana members join a special target-based virtual community in order to encourage one another in losing weight and creating a social environment that does not denounce self-starvation but rather support and strengthens the disordered behavior (10). Pro-Ana communities can be found in the Internet under different names, such as: Pro-Ana, ANAMADIM, Pro-Anorexia, Pro-ED (Pro-Eating Disorder), Thinspiration, ED's Friends, Starving for Perfection, Dying to be Thin, Pro-Ana/Mia, and Wannarexice.

There has been a lot of controversy surrounding Pro-Anorexia websites over the past decade. In fact in 2001 an American eating disorder advocacy group, Anorexia Nervosa and Associated Disorders (ANAD) pled with Internet servers such as Yahoo to remove these sites. Four days after their plea, 115 sites were shut down.

Many other servers have also removed these websites. Dias (10) notes that it is very difficult to locate Pro-Anorexia websites consistently as many sites are shut down daily. However, new sites also emerge on daily basis. There are those who claim that the rejecting and denouncing attitude had the opposite result. These websites became more attractive and intriguing because of the ban on them (21). Due to the changing nature of these websites it is difficult to determine the number of Pro-Anorexia sites, but Chesley, Alberts, Klein, Kreipe (19) estimate that there are over 500 Pro-Ana websites. Pro-Ana websites have also been shown to be more organized, comprehensive, visited more often, and more numerous than pro-recovery or professional sites. In their study they found that Pro-Anorexia websites had 34,988 visitors, whereas pro-recovery websites had a mean count of 28,878 visits. Recent study showed that within a period of a year, there were more than half a million visits at Pro-Ana's websites in the Netherlands. Also the number of Pro-Anorexia websites hosted by one single provider increased more than 10-fold (22). Despite the difficulty in accepting the phenomenon, Pro-Ana websites continue to serve as “self-help” sites for the community members. This perception allows major understanding that rejection and banning of the community does not help in eradicating the eating disorder phenomenon, nor does it diminish its value in the eyes of its members (23).

Today, Pro-Ana communities operate underground in the Internet, which means it is hard to find them in a simple search on the web; some links leads to an empty page; others are built under covert names that hide their purpose. Only those who are in the secret know their way around and can connect these sites (11, 12). The level of comradeship in the community is high and demands secretiveness and clandestineness. Revealing any information about the community is forbidden. As a result, it is difficult to estimate the number of members in the community (18, 24).

Even so, it is important to note that despite the glamour of belonging to a secret community, the concealment is not easy for members. The need to reveal oneself to close ones that are not part of the community are expressed in Pro-Ana forums, despite the unequivocal demand to avoid any form of exposure since this could lead to misunderstanding, destruction of relationships and distress (10, 18).

Characteristics of Pro-Ana Community

Research on Pro-Ana websites have identified several themes which help us to understand the information that is being disseminated through the Internet as well as why individuals join these sites. Individuals join these sites for support and to have a safe place to discuss their anorexic behaviors free from judgment. cit However, individuals are also being exposed to themes of weight loss, the idea that they have control over their behavior, their behavior is positive, and that sacrifice and deceit are necessary to achieve weight loss goals. Although there are several hundred Pro-Ana websites, most of them appear to have similar themes and are also formatted in a similar manner.

Mulveen and Hepworth (21) suggested that there's a clear distinction made on the Pro-Ana website between AN, the mental illness, and 'Ana' the lifestyle choice. Members in Pro-Ana use an extreme weight loss method where one chooses to use similar techniques as those employed by individuals with AN. The main things that distinguished these two concepts were the perceived degree of control and the choice that individuals had over eating. 'Ana' is presented as being in control and aware, whereas AN is a mental illness. A comparison between Pro-Ana sites and sites that deal with treating ED shows that Pro-Ana sites attract more Internet users.

Evidently, websites of the Pro-Ana community have similar characteristics. One of the main components is pictures that serve as models of inspiration for

thinness for members of the community (“thinspiration”). **Thinspirations** can be triggering photographs of slim celebrities, poems, movies, or anything else that is meant to inspire and sustain the behavior associated with AN (25). Most of the images of thinness and emaciation posted on these websites are images of celebrities and fashion models. The images often mimic themes of dismemberment or focus solely on one body part, both of which are commonly seen in advertisements. As Dias (10) indicates, if the models and celebrities were not familiar to us, it would be difficult to distinguish between the images of the emaciated and deviant bodies of those with AN and the acceptable and idealized bodies of the models. Ninety-two percent of the websites that Norris, Boydell, Pinhas, and Katzman (8) studied contained “thinspirations”. They noted that most often “thinspirations” were in the form of visual images but that motivational quotes and writings were also common. Accordingly, pictures of overweight women are presented in order to arouse rejection, as well as to warn from lapsing into that type of situation (18).

Bardone-Cone and Cass (26) designed an experiment in which nine undergraduate women viewed a Pro-Anorexia website, six undergraduate women viewed a comparison website that focused on body image and female fashion (thinspiration), and nine women viewed a neutral control website about home décor. The authors developed the Pro-Anorexia website based on an extensive Internet search of over 300 existing Pro-Anorexia websites. The only individuals that showed an increase in negative affect were those who viewed the Pro-Anorexia website. Similarly, only those who viewed the Pro-Anorexia website showed a decrease in self-esteem. Women who viewed the Pro-Anorexia website also felt less confident in their ability to achieve their ideal weight. Women who viewed the female fashion and home décor websites did not indicate a change in their perceived weight status or their

perceived attractiveness to the opposite sex, whereas those who viewed the Pro-Anorexia websites reported an increase in their perceived weight status and a decrease in their perceived attractiveness. These results suggest that viewing Pro-Anorexia websites has a negative impact on how viewers think and feel about themselves. Unfortunately the small sample size and the non-clinical nature of the sample limit the generalization of these results.

Another characteristic of Pro-Ana websites is the tips and methods ("**tips & tricks**") for losing weight, deceiving family and friends and, in general, misleading the medical team in case of treatment or hospitalization. In addition, there are calculators of body fat levels and caloric intake, recipes, ways of coping with fasting and more. The information is displayed on the website but also in forums and in personal stories which represent the personal experiences of the community members (10, 18). Eight of the twelve Pro-Ana sites that Norris, Boydell, Pinhas, and Katzman (8) analyzed included 'tips and tricks.' The tips posted on these websites varied significantly. For example, the 'tips and tricks' page on the website the member *Anagrrl* discussed the most effective diet drugs and where they could be ordered on the Internet (25). 'Tips and trick' sections also included the topics of starvation, fasts, and complementary and alternative medicines. Norris, Boydell, Pinhas, and Katzman (8) found that two-thirds of the Pro-Ana sites contained information specifically on calories. Frequently these websites posted foods that are believed to have a negative caloric intake. The tricks found on these websites frequently included ways to hide weight loss and methods for calorie avoidance. Although some of the websites did warn viewers of the dangers associated with extreme weight loss, others provided potentially dangerous information to viewers with no warnings.

The Pro-Ana community defines itself as a **cult** even though it doesn't have all of the characteristics (like paying money and a charismatic leader, and a real contact). As so it adapted religious metaphors, instructions for a lifestyle in the spirit of the Pro-Ana way of thinking and reference lists for inspiration. Religious metaphors were often present in the forms of the "Ana Psalm", Creed and a list of "Cult Principles". Religious messages often centered on issues of control, starvation, and self-hate. On a few sites, these messages almost appeared cult like. For example, on one particular website, followers were encouraged to make a pact with Ana and sign their name in blood. More personal websites also contained letters from Ana. One website that Norris, Boydell, Pinhas, and Katzman (8) studied posted a "letter from Ana" which read,

"I expect a lot from you. You are not allowed to eat much... I will expect you to drop your caloric intake and increase your exercise. I will push you to the limit. You must take it because you cannot defy me. Pretty soon, I am with you always". (p. 445).

Another letter from "Ana" that summons to maintain thinness and execute control of their bodies:

"Allow me to introduce myself. My name, or as I am called by so called "doctors", is Anorexia. Anorexia Nervosa is my full name, but you may call me Ana. Hopefully we can become great partners. In the coming time, I will invest a lot of time in you, and I expect the same from you....Sometimes you will rebel. Hopefully not often though. You will recognize the small rebellious fiber left in your body and will venture down to the dark kitchen....When it is over, you will cling to me again, ask me for advice because you really do not want to get fat. You broke a cardinal rule and ate, and now you want me back. I'll force you into the bathroom, onto your knees,

staring into the void of the toilet bowl. Your fingers will be inserted into your throat, and, not without a great deal of pain, your food binge will come up. Over and over this is to be repeated, until you spit up blood and water and you know it is all gone. When you stand up, you will feel dizzy. Don't pass out. Stand up right now. You fat cow you deserve to be in pain!..."

(<http://www.freewebs.com/savemeana/anareligion.htm>)

A survey of 47 Pro-Ana websites showed that 54% included **cult principles**, for example, *"I believe in perfection and starvation is way of achieving it"*; 27% included quotations from "Ana" such as, *"Salvation by losing weight"*; 31% presented "Ana" rules; 21% went deeper into describing "Ana" as a cult with principles and edicts, for example,

"I dedicate my life to Ana. She will be with me where ever I go, and will make sure that I do not stray. No one else is important. I am committed to respecting her and causing her to be proud of me."

All the declarations in these websites connect eating with weakness and lack of control, and, therefore, with gaining weight or, by contrast, uncontrolled loss of weight. A study of the advices and instructions on these websites revealed disturbing statistics: 82% of the websites give a list of "disbeliefs" on which a normal person relies; 47% offered dangerous solutions; 90% offered ways to lead parents on; 15% offered ways to conceal from caregivers (11).

Some of the Pro-Ana websites contain **disclaimer**. It is a warning on the first page, alerting viewers to enter the site at their own risk and informing of the nature of the information on the site. The disclaimer also notes that they should not enter the site if they are recovering from an eating disorder (10). Norris, Boydell, Pinhas, and Katzman (8) found that only 58% of the web pages posted a disclaimer. The seven

websites that did post a disclaimer noted that the website supported the Pro-Ana movement, discouraged individuals who had recovered from an eating disorder from entering, and prohibited individuals under age 18 from entering without parental consent.

Several researchers (8, 10, 21, 25) have investigated the content of these websites to determine exactly what kind of messages they are sending and what information they are providing. Mulveen and Hepworth (21) identified several main themes when studying a Pro-Anorexia forum. At the onset of their study there were 15,159 messages posted on the Pro-Anorexia forum and 1,060 registered users. They collected data from 15 separate message threads, which is an original topic posted to a message board as well as other members' replies, during a 6-week period. The first major theme that they noted was **weight loss**. Dietary restriction and special fasts were primary weight loss methods discussed on the forum. Calorie counting was an essential component of messages related to food and fasting. Discussions also centered on the use of diet pills, herbal remedies, and caffeine use in order to increase weight loss. Members also shared their weight goals and ideal body appearance with each other.

Social support was another theme seen in the Pro-Ana forum that Mulveen and Hepworth (21) studied. Members of the online community often referred to the emotional support that they experienced by being part of this online forum. Individuals on the website commented that being able to talk about their eating was helpful in that they were unable to discuss these issues outside the website due to the stigma associated with AN. Direct support was also offered on the website. There was support for eating disordered weight loss as well as support for healthy eating and recovery. "Individuals with eating disorders appear to see Pro-Anorexia sites as an

exclusive place where they can experience tremendous personal freedom to be themselves and not have to hide their eating disorder from others, such as from friends, colleagues, and professionals in ‘real life’” (21, p. 292). A similarly conducted study by Dias (10) found that a **desire to have a space** in which they can discuss issues **free from judgment** and **decrease feelings of isolation** were common themes in many of the members’ narratives. Although support for recovery was offered for those members who reached dangerously low weights or were getting into more extreme eating disordered behaviors, the website did emphasize the need for AN. Perceived positive aspects of fasting were reported and included achieving weight goals and purification. On the website, AN was perceived as a purifying way of life, both physically and spiritually.

In a similarly conducted analysis of Pro-Anorexia websites Norris, Boydell, Pinhas, and Katzman (8) identified ten main themes of the 12 Pro-Anorexia websites they reviewed which included; **control, success, perfection, isolation, sacrifice, transformation, coping, deceit, solidarity, and revolution**. All of these themes are related to the themes that Mulveen and Hepworth (21) identified in their research. The theme of **control** was evident in that websites suggested that successful weight loss would lead to control over one’s body and life. **Success** was related to strength and measured by weight loss. **Sacrifice** was also a recurrent theme. In order to be successful with AN, one would have to forego their relationships and school. Deceit may also be necessary in order to protect their eating disorder. There was also an emphasis on the idea that eating disorders can transform an individual from being fat and ugly to thin and beautiful. The Pro-Ana websites also viewed the AN as a means of coping and offered ways to cope with the eating disorder rather than treat it. Like

the website studied by Mulveen and Hepworth (21), there was an emphasis on **support** and a **judgment free** forum.

Support groups in the Pro-Ana community are usually very active. Another study examined posts in a forum over a three-day period found that **support** was the most significant and recognized element in the on-going correspondence. Support included compliments and reinforcements to lose weight, encouragement during difficult situations and crisis, and sharing personal experiences as a way of dissipating the feeling of isolation and strengthening a feeling of belonging. Since the lifestyle of those with AN has an obvious physical manifestation, community members turn these phrases into targets in the weight losing process: signs such as hair loss and erratic menstrual cycles represent milestones in the process that demand attention in the forum, leading to explanations and answers to the community participants (18).

The language that is frequently used on these Pro-Ana websites differs significantly from the **language** found on pro-recovery websites. Lyons, Mehl, and Pennebaker (27) looked at 162 Internet message board entries and 56 home pages either from Pro-Anorexia websites or from entries of recovering anorexics. These entries were analyzed for linguistic markers of emotional, cognitive, and social functioning, as well as temporal focus and anorexia-related psychological concerns. Pro-Anorexia websites contained more **positive emotional words** in both their homepages and their message board entries. Similarly there were less **anxiety related words** on the pro-anorexia websites compared to the websites of those recovering from the illness. Pro-Anorexia websites contained significantly less **cognitive mechanism words**, especially words concerning insight, than did recovering anorexic websites. **Self-referencing** was more seen on the entries of those recovering from AN compared to those Pro-Anorexia. The focus of the **here and now** was more seen

on the homepages and the message boards of the Pro-Ana websites than the pro-recovery entries. As expected Pro-Ana websites also contained many more words associated with eating and made fewer references to school and death-related issues than pro-recovery websites. “The word use of Pro-Anorexics indicated a more pronounced hedonic focus on positive emotions and the here and now, reduced level of cognitive processing, and a lower degree of self-preoccupation” (p. 256).

What Functions Do Pro-Ana Community Serves?

With all of the negative publicity and all of the efforts to ban these sites, why do these sites continue to flourish? To answer this question, it is necessary to look at the role that these websites serve for individuals with AN. As Tierney (28) suggests, individuals with AN often retreat from relationships and situations where their anorexic behaviors can be exposed. Pro-Ana websites are a place where these individuals can identify with others and avoid the isolation that is typically associated with AN. The Pro-Ana website becomes a community for these individuals. The Internet is convenient and available for researching and investigating possible support groups, to which a young girl can easily connect at her own household environment (10). As Norris, Boydell, Pinhas, and Katzman (8) note, through the use of fashion accessories, often in the form of a red bracelet, individuals become part of a community that endorses and practices anorexic behaviors. Not only do Pro-Ana websites provide a safe place for individuals with AN to be themselves, but advocates of Pro-Ana sites also claim that the websites minimize risks. As one member describes “giving anorexics a place to go, a place to find support and learn about the disorder....this way hopefully everyone will know how to do this as healthy as possible” (25, p. 963).

There also may actually be a therapeutic component within these websites. In the therapeutic community it is acknowledged that there are different stages of readiness for change. Before individuals with AN are ready to accept help, treatment is not usually successful. Generally this results in individuals not getting support unless they are forced into treatment or until they speak to a professional. With Pro-Ana websites, individuals with AN can access less intimidating support before they are ready to seek face-to-face support. Pro-Ana community describes itself as a support group and so the websites are a refuge for those teenage girls that are crying out for help. Pro-Ana websites also frequently discuss AN as ‘Ana’, a friend, or even a god.

Discussing AN as a separate voice is common on Pro-Ana websites and is also a practice common in Narrative Therapy. In Narrative Therapy patients are encouraged to separate the voice that encourages the destructive behavior, associated with AN from themselves, in order to gain some psychological distance and recognize that the eating disorder does not define who they are. Although the public has fought to ban these sites from search engines, very little research has focused on why they exist and what function they serve. As evidenced by the sites themselves, individuals feel that these websites provide them with a space to meet free from judgment where they can support each other and decrease the isolation that they feel (10).

Where Do We Go From Here?

The Internet is a legitimate meeting place, as well as an arena for corporation. Different groups unify around a common subject and discuss it through diverse tools (29). The power of the virtual community is its ability to contribute to every member in different way, emotionally, cognitively and behaviorally. Nevertheless, when the community’s purpose is not socially acceptable, the advantages of the community

become controversial. Such is the Pro-Ana community that provides emotional support such as information on losing weight, as well as an encouragement to do so, and sees AN as a legitimate lifestyle.

As Norris, Boydell, Pinhas, and Katzman (8) indicate many of these websites offer and promote a community of support for anorexics, which allow the perpetuation of the illness in the absence of treatment. Although the websites do provide support, they also allow information to be posted that has the potential to cause short-term and long-term medical complications. Only 58% of the Pro-Ana websites even had disclaimers about the nature of the website, which is cause for concern given the impact that this type of information can have. Martijn, Smeets, Jansen, Hoeymans and Schoemaker (22) examined the effect of the warning text before visiting Pro-Ana websites on actual access of these websites. A separate webpage with a warning placed before each Pro-Anorexia website hosted by specific provider for a period of one year. Of the total number of hits registered at the warning webpage, about one-third of the visitors did not continue to a Pro-Anorexia website. It seems that placement of a warning text before Pro-Anorexia websites can be one of the strategies in holding back visitors.

The nature of the content and the easy accessibility of these websites are worrying. A study that conducted a content analysis of the 'Tips & Tricks' section of Pro-Anorexia websites showed that this information is important for clinicians. Awareness to this information might be better equipped to recognize the symptoms of AN early in treatment. Knowledge of 'Tips & Tricks' can also facilitate greater education, making it difficult for clients to conceal their illness (30).

The use of Pro-Anorexia websites by individuals with AN reinforces their existing eating-disordered identity and makes it difficult to change. Tierney (28)

emphasizes that clinicians working with AN patients have to convince those who do not necessarily want help that change is possible and is in fact desirable. He also suggests that clinicians working with eating disordered patients should always ask their patients about their use of online resources to see whether they are accessing Pro-Ana websites.

Based on the research field, Pro-Ana web-sites serve an important function for those who suffer from eating disorders. History has shown that these Pro-Ana sites cannot be completely eliminated; therefore, the goal should be to utilize the positive and minimize the negative aspects of these websites. It is important to deepen knowledge with this Pro-Ana community in addition to help girls from this community, who came to therapy, to find other support than Pro-Ana's. The more therapists know in this matter, the more they can help their patients to deal with the obligation and the temptation to return to the Pro-Ana community.

References

1. Hsu LKG. Eating disorders. New York: Gilford Press, 1990.
2. Hesse-Biber SN, Leavy P, Quinn CE, Zoino J. The mass marketing of disordered eating and eating disorders: The social psychology of women, thinness and culture. *Women's Studies International Forum*, 2006; 29:208-224.
3. Hesse-Biber SN. *The cult of thinness*. New York: Oxford University Press, 2007.
4. Latzer Y. *Eating disorders*. Jerusalem: Sold Institute, 1999. (Hebrew).
5. Agras WS. The consequences and costs of the eating disorders. *Psychiatric Clinics of North America* 2001; 24:371-379.

6. Harrison K. Television viewing, fat stereotyping, body shape standards, and eating disorder symptomatology in grade school children. *Communication Research*, 2000; 27:617-640.
7. Holmstrom A J. The effect of the media on body image: A meta-analysis. *Journal of Broadcasting and Electronic Media* 2004; 48:196-218.
8. Norris ML, Boydell KM, Pinhas L, Katzman DK. Ana and the Internet: A review of pro-anorexia websites. *International Journal of Eating Disorders* 2006; 39: 443-447.
9. Fox S. Health Information Online. PEW Internet & American Life Project 2005. Retrieved July 9, 2008 from: http://www.pewinternet.org/pdfs/PIP_Healthtopics_May05.pdf
10. Dias K. The ana sanctuary: Women's pro-anorexia narratives in cyberspace. *Journal of International Women's Studies* 2003; 4: 31-45.
11. Abbate Dağa G, Gramaglia C, Piero A, Fassino S. Eating disorders and the Internet: Cure and curse. *Eating & Weight Disorders*, 2006; 11:68-71.
12. Brotsky SR, Giles D. Inside the "Pro-Ana" community: A covert online participant observation. *Eating Disorders*, 2007; 15:93-109.
13. Barak A. Youth and Internet: The psychology of the 'as if' [KE'ILU] and the 'suchlike' [KAZE]. *Panim*, 2006; 37:48-58. (Hebrew)
14. Steinberg L. *Adolescence*. Boston: McGraw-Hill, 2008.
15. Valkenburg PM, Peter J. Preadolescents' and adolescents' online communication and their closeness to friends. *Developmental Psychology*, 2007; 43:267-277.
16. Bargh JA, McKenna KYA. The Internet and social life. *Annual Review of Psychology*, 2004; 55:573-590.

17. Suler J. The psychology of text relationships. In R. Kraus, J. Zack, G. Stricker (Eds.), *Online counseling: A handbook for mental health professionals*. San Diego, CA: Elsevier Academic Press, 2004: pp. 19-50.
18. Gavin J, Rodham K, Poyer H. The presentation of "pro-anorexia" in online group interactions. *Qualitative Health Research*, 2008; 18:325-333.
19. Chesley EB, Alberts JD, Klein JD, Kreipe RE. Pro or con? Anorexia Nervosa and the Internet. *Journal of Adolescent Health*, 2003; 32:123-124.
20. Russel J. Treating Anorexia nervosa. *British Medical Journal* (editorial article), 1995; 311, 584.
21. Mulveen R, Hepworth J. An interpretative phenomenological analysis of participation in a pro-anorexia Internet site and its relationship with disordered eating. *Journal of Health Psychology*, 2006; 11:283-296.
22. Martijn C, Smeets E, Jansen A, Hoeymans N, Schoemaker C. Don't get the message: The effect of a warning text before visiting a proanorexia website. *International Journal of Eating Disorder*, 2009; 42: 139-145.
23. Shirky C. *Here comes everybody: The power of organizing without organizations*. New-York: The Penguin Press, 2008: pp. 202-208.
24. Giles D. Constructing identities in cyberspace: The case of eating disorders. *British Journal of Social Psychology* 2006; 45:463-477.
25. Fox N, Ward K, O'Rourke, A. Pro-anorexia, weight loss drugs and the Internet: An 'anti-recovery' explanatory model of anorexia. *Sociology of Health & Illness*, 2005; 27: 944-971.
26. Bardone-Cone, AM, Cass, KM. Investigating the impact of pro-anorexia websites a pilot study. *European Eating Disorders Review*, 2006; 14: 256-262.

27. Lyons EJ, Mehl MR, Pennebaker JW. Pro-anorexia and recovering anorexics differ in their linguistic Internet self-presentation. *Journal of Psychosomatic Research* 2006; 60:253-256.
28. Tierney, S. The dangers and draw of online communication: Pro-anorexia websites and their implications for users, practitioners, and researchers. *Eating Disorders*, 2006; 14: 181-190.
29. Rheingold H. *Smart Mobs: The next social revolution*. Cambridge: Perseus Publishing, 2002.
30. Harshbarger JL, Ahlers-Schmidt CR, Mayans L, Mayans D, Hawkins JH. Pro-Anorexia websites: What a clinician should know. *International Journal on Eating Disorders*, 2009; 42: 367-370.