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Does activity level in online support groups for distressed adolescents determine emotional relief

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Abstract
Online support groups are widely used for numerous types of distress areas, but relatively little has been empirically examined to date in regard to their effectiveness in providing emotional relief to participants as claimed. The current study aimed at testing a possible moderator affecting participants' emotional relief when using an online support group: the degree of active involvement. This subject was explored by investigating the number of main and response messages that 20 randomly selected participants posted, as well as the number of replies they received, over the course of three months of participation in an open, online support group intended for suicidal and severely distressed adolescents. Level of distress was measured by a thematic analysis of main messages posted by the participants that was conducted by three pre-trained, expert judges. Results revealed that although the level of participants' distress did not change over time, on the average, it was significantly correlated with activity level: the higher the number of posts and replies, the lower the level of distress in following months. Implications of these findings for the application and facilitation of online support groups are discussed.

Keywords: *Support groups, Internet, emotional relief, adolescents, online counseling*

Introduction

Online support groups have been used increasingly and intensively for over a decade. A recent survey conducted by Pew Internet Research Institute (2005) showed that 36 million people in the United States alone said they were members of online support groups. In Yahoo! Groups, for example, there are approximately 94,000 online support groups currently registered as such and covering numerous distress areas. These figures reflect not only the prevalence of the groups offered, but apparently the great human need for such an advanced and convenient help resource. In addition, this type of service takes advantage of the Net's advantageous characteristics — unique in comparison with parallel offline resources — such as accessibility and availability almost everywhere and at any time, affordability, anonymity, growing social acceptability, and sense of aloneness and privacy. Indeed, self-help resources, including information, assessment, guidance, and advice, have flourished on the Net. Online support groups are considered as a special type of self-help (Bellafiore, Colòn & Rosenberg, 2004; Tucker-Ladd, 1996–2000), as they enable people in distress to find others with similar needs and problems, to share feelings and information, provide advice, and develop a sense of a support community.

The effectiveness of online support groups in meeting their goals is questionable, however. On the one hand, there is some research and anecdotal evidence showing an actual positive contribution of online support groups to their participants (see recent review by Mallen, Vogel, Rochlen & Day, 2005). On the other hand, there are other empirical studies and case reports (see recent review by Eysenbach, Powell, Englesakis, Rizo & Stern, 2004) that provide evidence that these groups are generally ineffective. Various ideas have been suggested to explain these discrepancies, and several hypotheses have been generated. Barak, Grohol and Pector (2004) proposed that various moderators take part in implementing online support groups, which could account for their differential success. Specific moderating variables were considered, such as format and design of the communication medium (Wright & Bell, 2003), personality factors of participants (Swickert, Hittner, Harris & Herring, 2002), activity, background, and role of group facilitators (Klemm et al., 2003), duration of the group (Chang, Yeh & Krumboltz, 2001), and degree of participant self-disclosure (Tichon & Shapiro, 2003).

Furthermore, theoretical writings (Bellafiore, Colòn & Rosenberg, 2004; Colòn & Friedman, 2003; Meier, 2004), as well as field observations (Cummings,

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What does this study explore?

- Does the degree of active involvement in using an online support group affect the distress levels of those who use them?

Sproull & Kiesler, 2002; Dunham et al., 1998; Houston, Cooper & Ford, 2005), have stressed the *degree of activity and involvement of group participants* as a major factor in determining the level of personal relief participants could expect from their participation in the group. The purpose of the current research was to test the hypothesis that degree of participants' relevant activity level in an online support group—posting messages, responding to others, and receiving replies from others — is a moderating factor in gaining personal relief when taking part in a group.

Method

Participants

The participants took part in a forum-based open and free support group managed by SAHAR — an Israeli organization that offers emotional support for people in distress through individual (i.e., email and chat) and group (forum) support (Barak, in press). Twenty adolescents (15 girls and five boys) were included in the study. They were randomly selected from among all participants in the group who had met several criteria: (a) They had participated for at least three consecutive months. This particular time duration was determined following research and experience showing this to be a reasonable period of time for personal support and relief to take place (e.g., King & Moreggi, 1998; Meier, 2004); (b) They participated and were involved in the group (in contrast to just lurking or being relatively passive) to at least a set minimum level: posting two main messages (i.e., messages that opened new threads) a week, on average, throughout the three-month period. It should be noted that participants had joined the group at different points in time, hence, the three months of participation started at different points. All participants used nicknames, thereby assuring complete anonymity and personal secrecy. In case of emergency (e.g., a clear suicidal note), participants can be identified and located through their IP address (obtained from server's operator) in collaboration with the police (see Barak, in press).

Measurement of level of distress

Level of participants' emotional distress was determined by using Leenaars' (1988, 1996, 2004) thematic guide. According to this method, eight typical themes can be identified in the writings of people suffering severe emotional distress and who perhaps may even be suicidal. Leenaars divided the themes into two groups: (a) intrapsychic, which includes unbearable psychological pain, cognitive constriction (rigidity in thinking and narrowing of focus); indirect expressions (complications, ambivalence, redirected aggression, unconscious implications); inability to adjust (a state of mind incompatible with accurate discernment of what is going on); and ego weakness (expressed weakness owing to a steady toll of traumatic life events); (b) interpersonal, including interpersonal relations (problems in establishing or maintaining relationships), rejection-aggression (rejection that is experienced as abandonment), and identification-egression (experiences of deep pain or discomfort and a desire to egress, or to leave, to be gone, to be elsewhere). Research suggests that these themes correlate with various signs of a depressive mood and are highly predictive of suicide and suicidal ideation (e.g., Barak & Miron, 2005; Leenaars, 2004). According to Leenaars, a theme in a text is identified on the basis of a dichotomy — existent or non-existent. Thus, messages were rated as including or not including each of the themes. An emotional distress score was created by adding the number of existent themes in a text message, ranging from 0 to 8.

Three expert judges (professional female counselors) were trained to identify the themes in forum messages, using Leenaars' (1988) definitions and numerous examples. Following the training, they received 30 forum messages (not included in the research data), which they were asked to rate. Kendall's *W* coefficient of agreement ranged from 0.47 to 0.72 for the eight themes. Next, after a discussion of the differences among them, the judges were asked to rate 30 additional messages, for which the *W* coefficients increased and ranged from 0.55 to 0.87. Following this stage, the judges rated the main forum messages of the actual research. The *W*'s of these data ranged from 0.71 to 0.88 for the eight themes, and was 0.91 for the total distress score. A message's distress score was determined as the average score of the three judges.

Procedure

All the messages posted by the participants during the three months, as well as all messages replying to their own posts, were collected. The main messages ($n = 271$, 312, and 207, for the three months, respectively, or a total of 790 messages) were printed, each on a separate page, without disclosing information that could bias a judge's ratings (e.g., the poster's nickname), then provided to the judges. The rating work lasted approximately one month.

Results

Table I presents the mean number of main and response messages posted by the 20 participants, and responses they received, during the three months of the research period. As can be seen in the table, the participants posted, on average, 13.55, 15.60,

Table I. Number of forum messages posted and received by participants, by type of message and month of participation in the group ($n=20$).

Month	First		Second		Third	
Type of message	M	SD	M	SD	M	SD
Main	13.55	6.64	15.60	8.65	10.35	4.66
Responses given	68.90	49.82	79.35	70.52	42.85	41.31
Responses received	68.00	40.94	77.10	49.37	44.75	33.08

Table II. Means and standard deviations of level of distress of selected participants, by month of participation in the group.

Month	First			Second			Third		
Participant	#[a]	M	SD	#[a]	M	SD	#[a]	M	SD
A – Improved	17	2.12	1.50	12	1.25	1.60	6	0.50	0.55
B – Deteriorated	9	2.67	1.87	18	5.44	1.62	16	6.25	0.86
C – Improved, then deteriorated	16	1.75	0.93	16	0.31	0.79	13	1.92	0.95
D – Deteriorated, then improved	8	2.13	1.64	9	5.33	0.71	9	3.00	2.52
E – Did not change	8	5.50	2.39	8	5.50	0.76	9	5.44	2.92

Note: Distress level ranges on a scale from 0 to 8. [a] Number of main messages posted.

and 10.35 main messages in each of the three months, respectively. They provided, on average, 68.90, 79.35, and 42.85 responses; and they received 68.00, 77.10, and 44.75 responses. Thus the average participant posted 38.43 messages a month (more than once a day, on the average), and received 63.28 responses a month (over two a day, on the average). The data shows, however, that the number of messages posted varied widely (from 13 to 309 a month) as did the number of responses they received to their posts (from 13 to 205 a month).

The mean level of distress for the group of participants was 2.65 (based on 271 main messages; SD = 2.04), 2.82 (312 messages; SD = 2.23), and 3.07 (207 messages; SD = 2.43) for each of the three months, respectively. One-way ANOVA revealed non-significant differences ($F=2.10$; $df=2$, 787), meaning that, on average, the participants did not experience emotional relief over the three-month period that they took part in the group. Nevertheless, there were differences among individual participants in terms of changes in distress level. Table II shows the mean distress level of five representative participants. As can be seen, while participant A gained from taking part in the group; participant B's emotional situation worsened over time; participant C's condition first improved, then declined; participant D's state got worse and then improved; while participant E's distress level did not change over the three-month period. These examples reflect the overall picture of the whole group of 20 participants. The great variation in participants' conditions, as well as the large variance in their online experiences in terms of providing and receiving support, enabled testing of the research hypothesis.

In order to examine the hypothesis regarding the possible association between participants' activity level in the group and their emotional relief, Pearson correlations were computed between the number of messages posted and received by the participants and the level of their later personal distress. Accordingly, the number of reply messages posted and the number of messages received by participants during the first month were correlated, as shown in Table III, with their levels of distress in the second and third months. As the table reveals, consistent with the research hypotheses, all correlations are significantly negative. This means that the higher the number of messages posted (both main and response messages) and received in the first month of participation in the group, the lower is the level of distress in the second and third months. Further analysis found that the sum of the number of messages posted and received in the first two months similarly correlated with participants' level of distress in the third month: -0.48 ($p<.05$) for main messages, -0.54 ($p<.01$) for response messages, -0.54 ($p<.01$) for total messages posted, and -0.43 ($p<.06$) for received messages.

Discussion

The findings of this study clearly show that active involvement in a support group — through posting personal messages, responding to others, and receiving replies to one's own messages — are conversely related to a participant's later level of distress. Given the longitudinal nature of this investigation, this relationship seems to be rather causal. That is, the

Table III. Correlations between number of messages posted and received during the first month and distress level in second and third months of participation in the group ($n=20$).

Month Type of message	Second	Third
Main messages	−0.64**	−0.56**
Responses given to others	−0.57**	−0.57**
Total messages posted	−0.60**	−0.58**
Responses received from others	−0.48*	−0.60**

*$p<.05$ (one tailed).
**$p<.01$ (one tailed).

What do we learn from this study?

- The higher the number of posted messages and replies, the lower the level of distress manifested by users in following months

more involved a participant, the lower her or his level of distress becomes over time. This important finding is consistent with pre-established arguments voiced earlier and with previous preliminary observations (e.g., Cummings et al., 2002; Dunham et al., 1998; Houston et al., 2005), thus providing a significant step forward in understanding the dynamics of online support groups. In addition, the results of the current study can shed light on disappointing findings of reviews in the area (e.g., Eysenbach et al., 2004); online support groups might indeed generate no impact, *on the average*, for their participants (just as the current study found, too), but there are people who find the group to be a relieving vehicle, indeed: these are the people who take an active part in them (writing messages and receiving replies). The main implication of this finding is that appropriate instructions should be delivered to participants in order to encourage their *active* involvement in the group, which will consequently promote their emotional relief. Likewise, online support-group facilitators should be instructed and trained accordingly and, they should also play a major role in encouraging participants' active involvement.

A message posted by one of the study's participants — who was among the more involved users — exemplifies the importance of connecting to a support group and extracting personal gain from it for personal relief:

> I arrived here lacking self-confidence, depressed, and socially anxious. I thought about committing suicide and finishing with this life. But people here have changed my mind, the way I look at life. With your help and support I've changed to a happier person. I've almost fully overcome my lack of confidence and social anxiety; I don't think of suicide, it doesn't even cross my mind any more. I've found a really good girlfriend, I began talking to a friend I'd always escaped from, I've generally begun talking to people. And this is all thanks to you. So, again, I want to thank all of you, and hope what happened to me eventually will happen to all of you.

The personal process described here cannot ordinarily be achieved without being closely involved, active, and well related to actual activities in the forum.

It should be taken into account that although massive forum activity was investigated over a period of three months, as reflected by the large amount of messages studied (790 main, 3,822 response, and 3,797 reply messages — a total of 8,409 messages), only 20 participants were followed-up (sampled from all others who took part in the group). Replication of the study is needed, and future research should also look at more micro signs of distress on a shorter basis than a month. Obviously, online support groups in other areas of distress (e.g., health-related, parenting issues, relationships problems) should be examined to allow broader generalizations of the findings. Also, in using advanced text analysis tools to examine content of forum messages (e.g., Alpers et al., 2005), or deductive semantic analysis (e.g., Coulson, 2005), further understanding of the dynamics of help given and received in online support groups could be achieved.

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