

# COMMUNICATION PATTERNS IN AN ON-LINE MUTUAL HELP GROUP FOR PROBLEM DRINKERS

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*This study analyzed 376 randomly selected messages (known as "posts") to investigate the features, patterns, and functions of communication in an on-line mutual help group (OMHG) for problem drinkers. Consistent with previous OMHG research, the most prevalent form of communication was providing self-disclosure, followed by providing information/advice. As in face-to-face groups, conflict was infrequent and communication was generally warm and supportive. Consistent with previous findings of gender atypicality in OMHG participation, although most problem drinkers are male, 72% of posts for which the author's gender could be identified were written by women. No gender differences were found in communication patterns. The findings suggest that OMHGs may be particularly appealing to individuals with minority status in a problem-focused community.*

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Internet technology has greatly enhanced individuals' ability to exchange information and emotional support with others who share their problems, strengths, and hopes. Hundreds of on-line mutual help groups (OMHGs) for health and social problems have been formed in the past decade (Madara, 1999), and over 20 million web pages now provide health-related information (Lawrence & Giles, 1999). With about 90 million internet users in North America (Internet Society, 1999 cited in Kerlin, 1999) and more than 150 million worldwide (CommerceNet Consortium, 1999), on-line mutual aid networks have considerable potential to promote health, well-being, and empowerment. Recognizing this reality, researchers have begun evaluating the nature, function, and effects of OMHGs. The present study builds upon the nascent research base in this area by describing communication in a OMHG and examining how it is influenced by the group's focal problem (in this case, problem drinking) and gender composition.

Researchers' initial efforts to study OMHGs were appropriately exploratory, and described groups for a variety of problems such as having been sexually abused (Finn & Lavitt, 1994), having breast cancer (Fernsler & Manchester, 1997; Gustafson et al., 1993; Weinberg, Schmale, Uken, & Wessel, 1995) and being the caregiver of someone with Alzheimer's disease (Brennan, Moore, & Smyth, 1991, 1992). Although they did not employ formal communication coding systems, these projects generally characterized OMHGs as supportive communities in which members primarily communicated by sharing personal experiences, providing information, and offering emotional support. Indeed, group members stated, either on-line to other members, or in feedback to the researchers, that they valued both the practical suggestions and the sense of unqualified acceptance provided by their on-line mutual help network (Brennan et al., 1991, 1992; Finn & Lavitt, 1994; Fernsler & Manchester, 1997; Gustafson et al., 1993).

A second generation of OMHG studies adopted formal communication coding schemes that allowed more precise and reliable description. Salem, Bogat, and Reid's (1997) coding of communication in an OMHG for depression, and Winzelberg's (1997) parallel study of an OMHG for eating disorders confirmed the earlier impressions of exploratory projects. Both of these studies found that the three most common types of communication in OMHGs were, respectively, self-disclosing personal experiences, offering information and advice, and providing emotional support. Like earlier studies, these two projects also found that conflictual interactions were rare (Finn & Lavitt, 1994).

Because on-line communication is usually asynchronous (Walther, 1996), lacks social cues and regulatory feedback (Kiesler, Siegel, & McGuire, 1984), and proceeds without the benefit of well-established conversational norms (Kiesler et al., 1984), one might expect OMHGs to be less smooth, supportive, trusting, and helpful than prior research has indicated. Are OMHGs always an oasis of supportive communication in an internet rife with misunderstood e-mails and "flaming" (internet argot for aggressive or insulting messages), or are the groups that have been studied unrepresentative of all OMHGs? Regarding the latter point, the studies just reviewed all examined OMHGs addressing problems (e.g., depression, caregiving, eating disorders, sexual abuse, breast cancer) that (a) are substantially more prevalent among women than among men, and (b) are, broadly speaking, "internalizing" rather than "externalizing" types of difficulties. Were these two characteristics reversed, for example, in an OMHG for batterers, alcoholics, or compulsive gamblers, would self-disclosure, helpful advice, and emotional support continue to be the normative types of communication?

To evaluate whether the unusually supportive quality of interactions in OMHGs identified to date is a characteristic of OMHGs in general, or varies as a function of the prob-

lem addressed and the population that typically experiences it, the present study departs from earlier work by examining communication in an OMHG for problem drinkers. Unlike problems addressed in previous studies of this sort, alcohol abuse is a predominantly male condition. To understand how gender is related to OMHG communication, we compare communication in an OMHG for problem drinkers to that in groups for problems primarily experienced by women (e.g., eating disorders), and within the OMHG we examine gender differences in the communication of male and female problem drinkers. In a related vein, because alcohol abuse differs from the other conditions examined thus far in OMHG research in its significant association with aggressive and antisocial behavior (American Psychiatric Association, 1994), we also examine whether OMHG communication among problem drinkers is less supportive and trusting than that among individuals with other types of problems.

## METHODS

### *Ethical Considerations*

Conducting research related to on-line mutual help groups poses a unique set of ethical concerns (King, 1996) including violation of the group's perceived privacy, lack of informed consent, and potential harm to the group or its members resulting from the presence of researchers or the reporting of results (See Humphreys, Winzelberg, & Klaw, in press and King, 1996 for further discussion of these issues.) In light of these ethical concerns, this study was conducted in collaboration with the organization's founder and with the cooperation of the OMHG operator, a clinical psychologist. For the most part, however, the OMHG participants were unaware of the study of the on-line discussion group although they knew that the authors were engaged in a research project pertaining to the mutual help organization. Fortunately for the research process, the organization's web site clearly states that the on-line discussion group is a public forum open to professionals with no guarantee of confidentiality. Conceptualizing on-line discussion as a public forum, similar to letters to the editor or radio talk shows (Humphreys et al., 2000; Salem et al., 1997; Salem & Bogat, 1999), we chose to include only prototypical quotes with identifying information omitted. Specific quotes were selected based on their representativeness of numerous similar responses. (Salem & Bogat, 1999; Winzelberg, 1997).

### *Participants*

In addition to the on-line discussion group studied here, the mutual help organization under investigation employs twice weekly internet "chat rooms" in which participants can communicate in real time and about 30 face-to-face groups across the United States and Canada. The organization attempts to help problem drinkers manage drinking as a habit disorder using social support and cognitive-behavioral principles, and assumes that many problem drinkers will be able to return to moderate, non-problem drinking. These characteristics make the mutual help organization studied here different from Alcoholics Anonymous and many professional treatment programs, and therefore, controversial in some quarters. The organization describes its OMHG as follows on its web site:

This is a great alternative for people who do not have groups in their local communities, or who prefer on-line groups. It is a place where you can share your experiences, successes, and challenges while working the program. It is also a

place to ask questions, receive feedback, make suggestions, and occasionally philosophize. Our current mailing list is intended primarily for those in recovery, but it is also open to spouses, friends, and professionals in the field.

### *Procedure*

Data was collected from 400 randomly selected posts from all 12,296 posts made by participants over a one-year period. A "post" is a message transmitted by electronic mail and then copied to everyone on the distribution list (such OMHG's are often called "listservs" or "mailing lists").

To facilitate comparison with earlier work, a set of "process" coding categories were adapted from Winzelberg's (1997) study of an OMHG for eating disorders and Salem et al.'s (1997) study of an OMHG focused on mental health problems. The categories employed in these studies overlapped considerably, and the two coding schemes were integrated and refined to develop the coding categories employed in the current study (A copy of the codebook containing explanations and criteria for each code may be obtained from the first author). To ensure definitional specificity and maximum inter-rater reliability, current coding categories were operationalized as much as possible. Thus, the presence of specific words or phrases served to signal inclusion in coding categories. Conversely, to avoid overemphasis on raters' interpretation, codes were assigned on the basis of content present in the post, not according to the implied intent of message.

To ensure coverage of all types of posts observed in the pilot work, the current coding scheme included two new categories not found in earlier research. A "Group Feedback" coding category identified comments pertaining to both positive and negative aspects of relationships within the OMHG, and a "Content" coding category classified specific types of topical content found in the posts.

Analyses consisted of coding for the presence or absence of each of the 19 coding categories in each message (i.e., a message could therefore receive multiple codes.) The two coders (EK & PDH: the first two authors) worked together on pilot data over several months to achieve reliability and refine the coding categories. The current sample of posts was coded independently by the two coders. The average of their ratings was used to determine the number of times a coding category occurred in the posts. This technique produces superior reliability to negotiating 100% agreement (Tsujimoto, Hamilton, & Berger, 1990). The average agreement for all categories (see Table 1) was 91%, ranging from 74.5% (Provide Information) to 100% ("Spam," or junk mail).

## **RESULTS**

### *Descriptive Data*

Of the 400 randomly selected posts, 24 (6%) of the posts were authored either by the founder of the organization or by individuals who explicitly identified themselves as treatment-related professionals. Descriptive information and study findings will be presented based on the remaining 376 posts contributed by list members. Of these 376 posts, 11.7% occurred on Monday, 16.0% on Tuesday, 15.2% on Wednesday, 17.6% on Thursday, 16.8% on Friday, 10.6% on Saturday, and 12.2% on Sunday. Less than 1% of post authors stated that this was their first time writing to the OMHG. Seventy-two percent of the posts were responses to other posts on the OMHG, and 56% were directed primarily to specific OMHG members. Analysis of OMHG names and gender references within posts

**Table 1. Thematic Coding Categories and Inter-rater Agreement  
(Based on 376 Non-professional Posts)**

<i>Codes</i>	<i>Agreement</i>
Users (descriptive information about posts)	
Author sex	92.3%
Author self-identified as first-time poster	99.7%
Post directed to an individual	84.0%
Communication processes (processes of communication identified in posts)	
Emotional support (empathy and encouragement)	
Provide emotional support	87.8%
Request emotional support	96.0%
Information/advice (facts, references, tips for action)	
Provide information	74.5%
Request information	89.6%
Self-disclosure ("I statements" about past and current life situations and coping)	
Provide self-disclosure	85.6%
Request self-disclosure	91.5%
Humor (jokes, sarcasm or amusing stories)	88.0%
Group feedback (comments on relationships within the OMHG)	
Tracking members	93.9%
Expressions of appreciation	89.4%
Expressions of disagreement/negative feedback	94.9%
Content of posts (specific topical content contained in posts)	
Reference to alcohol	81.6%
Reference to organization's principles or behavior change plan	83.5%
Reference to on-line subgroups	97.6%
Reference to chat room meetings	98.9%
Reference to philosophies of treatment (comparisons to other approaches)	90.7%
Spam <sup>a</sup> (mass mailed advertisement or announcement)	100.0%

<sup>a</sup>Spam category was adapted from Sullins, 1998.

produced a surprising result given that both problem drinkers and internet users are primarily male populations: Of the posts in which gender was identifiable (81% of all posts), 72% were authored by women.

### *Process Codes*

Because the process codes were very similar to those used in previous research (Salem et al., 1997, Winzelberg, 1997), comparison across studies was possible. However, because Winzelberg (1997) allowed only one code per message, while the present study and Salem et al.'s (1997) study allowed multiple codes per message, frequency data were converted to rank-order data in Table 2 to facilitate meaningful comparison. As can be seen, the relative frequency of different types of messages was almost identical across the studies, despite each OMHG addressing a different focal problem.

*Provide Self-Disclosure.* "Self-disclosure," defined as providing information about the self regarding current or past life situations and coping (Salem et al., 1997, Winzelberg, 1997) was the most frequently used code (66.0% of posts). Self-disclosure usually pertained to drinking behavior and personal efforts to manage alcohol use. However, many

Table 2. Ranks of Process Code Frequency in Three OMHG Studies

	<i>Provide Self- Disclosure</i>	<i>Provide Info/ Advice</i>	<i>Provide Emotional Support</i>	<i>Request Info/ Advise</i>	<i>Request Self- Disclosure</i>	<i>Request Emotional Support</i>
Current study	1	2	3	4	5	6
Winzelberg, 1997	1	2	3	4	6	5
Salem et al., 1997	1	2	3	4	*	*

Note. 1 = Most frequent; 6 = least frequent. \*No similar coding category.

posts described other facets of life related to alcohol abuse such as familial relationships, childhood experiences, psychological struggles (e.g., depression and anxiety), and health habits (e.g., efforts to lose weight). In some cases, self-disclosure functioned as an indirect request for support. In others, it appeared to provide both emotional support and information. The high prevalence of self-disclosure statements and the large topical variability of the posts suggests the provision of global, nonjudgmental support was more essential to group discussion than was the exchange of specific information and advice.

I, on the other hand, didn't [pass up temptation]!! SOB! I had some friends over . . . and I told them all NO ALCOHOL. But, they didn't listen and I didn't want to tell them WHY . . . not yet at least. Of course, there was beer and I ended up having 4 beers between 7PM and midnight . . . (Female Problem Drinker).

I've been on Prozac for two years and don't experience that (much) anymore. The Prozac has helped a lot. But the edge seems to be off ALL my emotions, which at first was a blessing and now feels like I'm missing something (Female Problem-Drinker).

*Provide Information and Advice.* Consistent with prior studies, providing information and advice was the second most prevalent (36.7% of all posts) process code. Examples included providing historical facts, citations from expert sources, advice on internet and computer use, and suggested courses of action. The information and advice provided often pertained to health promotion, the effects of alcohol, and strategies for moderating alcohol use. These posts typically contained referrals to specific books, articles (often embedded into the post), treatment approaches, and internet resources regarding drinking, psychological well-being, and physical health.

It might be helpful to do a little brainstorming and come up with [a list of associations with alcohol] so they don't sneak up on you. Then make a plan for how to deal with these situations or even avoid them. (Female Problem-Drinker)

*Providing Emotional Support.* The third most frequent (28.7% of posts) process theme was emotional-support provision. Emotional support often related to urging a specific OMHG member to "not be so hard" on themselves for failures to limit or abstain from drinking. These posts frequently encouraged a self-described "lapsed" OMHG member to resume controlling their alcohol consumption. Posts provided empathy and encouragement related to health concerns, interpersonal concerns, occupational concerns, environmental stressors, and loss.

Way to Go . . . !!! You ought to feel pretty good about your accomplishments!  
Change takes some work but it is worth it, isn't it??!! Keep up the great work!  
(Female, role not identifiable)

. . . these goofy stories the past few days were meant for you to help you handle  
the pressures you're going through. Hang in there buddy, we're beside you  
(Male, role not identifiable)

*Humor.* Humor appeared in 21.9% of the posts. Smiley faces and text symbols of smiles, sounds, and laughter (e.g., "LOL," meaning "laugh out loud" and "<G>," meaning "grin") signified humor in posts containing sarcastic comments, jokes, and farcical stories. In terms of function, humor seemed to increase feelings of camaraderie among OMHG members. At times, humor was also used to diffuse tension when OMHG conversations were awkward or included disagreements. At other times, humor seemed to enable posters to laugh at themselves as they faced the challenge of limiting their drinking (cf. Humphreys, in press). Humor also provided opportunities for OMHG members to mock rival self-help group organizations such as Alcoholics Anonymous. Sometimes, humor consisted of jokes about significant others and family members.

I believe it's good to let people [get things off their chest] without too much judgement, and to make allowances for some people to be in doo-doo situations. We deserve to be treated with respect and caring and part of that caring is allowing others not to be perfect. (Bursts into singing "It's a Small World")——  
(a human bean) (Male Problem-Drinker)

*Request Information/Advice.* Over 15% of the posts contained requests for information or advice. The majority of posts directed specifically at the substance abuse professionals on the OMHG and the organization's founder contained requests for information. Further, health information requests were often directed to OMHG members known to work in medical professions. Not surprisingly, most requests for information/advice pertained to alcohol, health, and the use of computer-mediated communication. In addition, some requests for information/advice pertained to interpersonal relations, the workforce, education, hobbies, pets, and popular culture.

A question for anyone who might know the answer (Dr. P?): Do experts who reject the "disease" theory of "alcoholism" also reject the idea that problem drinking is genetic???? (Female Problem-Drinker)

I'm on America On-line and received no [OMHG name] mail today . . . Did anyone else have that problem, or am I being ostracized? If anyone out there gets a digest that you can easily send me, it would be much appreciated. (Male, role not identifiable)

*Request Self-Disclosure.* Interestingly, requests for self-disclosure were found in only 7.5% of the posts. Such requests usually referred to inquiries about personal coping, interpersonal relationships, and experiences with drinking, moderation, and abstinence. Some requests functioned to express concern while others solicited experiences that might be helpful or reassuring to others:

Tell me, are you having the same kind of lucid moments that I'm having? Are certain truths making themselves known to you more often now than when you over-drunk? (Female Problem-Drinker)

*Request Emotional Support.* Only 3.3% of the posts contained explicit requests for emotional support. In the current study, emotional support was more frequently elicited by indirect strategies such as providing self-disclosure. Even when emotional support was explicitly requested, it was usually made in the context of providing self-disclosure. Requests for emotional support contained pleas for acceptance, encouragement, and empathy in coping with alcohol or stress.

Remind me again . . . WHY am I doing this [alcohol moderation program] thing? I've given it a go and I'm \*still\* depressed, I'm \*still\* anxious, I \*still\* have limp hair, I'm tired as hell, and I'm GAINING weight for heaven's sake. I want my reward, and I want it now !!! (Female Problem-Drinker)

### *Group Feedback Themes*

These themes referred to both positive and negative comments pertaining to relationships in the OMHG.

*Appreciation.* A full quarter of the posts expressed thanks or appreciation for the OMHG, specific members, or specific comments. In such posts, individuals noted that the OMHG, as a whole, had provided essential support, or that certain posts or members had been instrumental in the process of reducing alcohol consumption.

I would like to thank everyone who responded to my questions. This seems like a good group of people with whom to relate. I hope to be able to be on here often. I will need it as this is my first week of total abstinence. (Female Problem-Drinker)

*Tracking.* In 8.6% of the posts, OMHG members asked about the whereabouts of other members, welcomed new or returning members, or encouraged other members to post.

Hi Sally-  
No reason to skulk! Welcome back!  
John (Male, role not identifiable)

*Disagreement.* Only 4.9% of posts expressed conflict, dissatisfaction, or disagreement with discussions or comments made to the OMHG.

As for back-stabbing, that's just insanity talking. Neither Vera nor I were accusing anyone of back-stabbing. (Female Problem-Drinker)

### *Content Themes*

In terms of specific topical content, over half of the posts (51.7%) contained an explicit reference to alcohol or drinking. Forty-two percent referred to the mutual help organization's plan or principles. In terms of referencing other electronic discussions related to the self-help network, only 5.3% of the posts mentioned chat room meetings and only 2% mentioned subgroups stemming from the main OMHG (such as the "chubby" subgroup for dieters). No posts were identified as "spam" (defined elsewhere) A little over 7% (7.3%) of the posts discussed philosophies of treatment, usually contrasting the

organization to more established mutual help organizations guided by a spiritual approach to recovery from alcoholism.

Joining a cult is easy . . . It's easy to give your power to someone else—a parent figure, religion etc. It's much more difficult to take responsibility and make your own decisions. However, when the time has come to take charge of your own life, these “gurus” lose their power. (Female Problem-Drinker)

### *Gender Comparisons*

Building on prior studies, the current project examined whether males and females differed in the process and content of their posts to the group. Using independent sample *T* tests, no significant gender differences were found in the 15 comparisons conducted.

## DISCUSSION

This study provided an in-depth description of the current function of communications in an OMHG for problem drinkers. Similar to other mutual help groups that have been examined (Brennan et al, 1991, 1992; Fernsler & Manchester, 1997; Finn & Lavitt, 1994; Gustafson et al, 1993; Salem et al., 1997; Salem & Bogat, 2000; Winzelberg, 1997), the OMHG studied here offered an encouraging and supportive environment in which personal stories, questions, and advice were openly shared. Indeed, disagreement or conflict was found in only 5% of the posts. Current findings were consistent with prior research regarding the types of communication that characterize on-line mutual help, which is striking given the variety of topics and formats present in the OMHGS that have been studied.

In keeping with research findings pertaining to on-line depression (Salem et. al., 1997) and eating disorders groups (Winzelberg, 1997), providing self-disclosure was the most frequent type of communication found in the posts. In fact, over 65% of posts contained self-disclosure. In stigmatized communities, self-disclosure may serve a particularly crucial function in recovery, allowing individuals to alleviate shame, and providing opportunities for members to compare their experiences to those of others with similar concerns. Although this disclosure most commonly pertained to drinking behavior, many posts described related topics such as familial relationships, psychological problems, and health behaviors. Not surprisingly, self-disclosure statements often elicited support from other OMHG members. In some cases, self-disclosure statements provided both emotional support and information. The opportunity to provide support may be integral to the benefits participants receive from mutual help groups (cf. Reissman, 1965).

In terms of the content discussed on the OMHG, unsurprisingly, over half of the posts specifically referred to alcohol or drinking. Only 42%, however, contained explicit references to the mutual help organization's plan or principles. Of course, alcohol use and the organization's principles provided an implicit context for many posts on the OMHG. However, these findings also indicate that OMHG members viewed their alcohol problems in the framework of the multifaceted nature of their lives. Moreover, the diverse content of the posts may reflect the fact that for the most part, OMHG members were highly educated professionals who enjoyed using the on-line forum.

Moreover, the topical variability found in the posts suggests that much of the support provided by OMHGs is global rather than focused solely on target problems. Simi-

lar to mentoring (Sullivan, 1996) and therapeutic relationships (Rogers, 1961), this global, unconditional support may be fundamental to the potential benefits of OMHG (U.S. Department of Health and Human Services, 1987). That providing support is the implicit norm in OMHG is suggested by the fact that only 3% of the posts contained explicit requests for emotional support. This finding is similar to Winzelberg's (1997) finding that 5% of posts to an eating disorders OMHG contained requests for support and Salem et al.'s finding that only 15% of posts to an OMHG for depression contained requests for help of any form (emotional or informational).

In contrast to on-line groups previously studied (Salem et al., 1997; Salem & Bogat, 2000; Winzelberg, 1997), the OMHG under investigation is connected to a comprehensive mutual help program that offers a handbook detailing specific behavioral principles, and approximately 30 face-to-face groups (Klaw, Luft, & Humphreys, 1999; Klaw & Humphreys, in press). Some of the discussion group members actively attend face-to-face meetings and participate in on-line subgroups of the OMHG. Further, the group focuses on an "externalization" problem (i.e., alcohol abuse) more commonly experienced by males. Despite these differences, however, communication here was similar to that observed in previously studied groups (Salem et al., 1997; Salem & Bogat, 2000; Winzelberg, 1997).

Substance abuse professionals are considered welcome on this OMHG and their advice is frequently solicited. Nevertheless, only 6% of posts were explicitly authored by a substance abuse professional. These posts mainly consisted of announcements from the organization's founder and clinical advice from the OMHG operator, a university-based psychologist. In keeping with these findings, Salem and Bogat (2000) noted that professionals are less likely to dominate on-line groups as compared to face-to-face groups.

The OMHG included both male and female participants. Interestingly, despite men's greater likelihood to experience alcohol problems (Vogeltanz & Wilsnack, 1997), women authored 72% of the posts identifiable by gender. In contrast, only 35% of women completing Alcoholics Anonymous' membership survey (distributed at face-to-face meetings) were women (Kurtz, 1997). This finding, which merits further investigation, suggests that perhaps certain features of the OMHG were particularly appealing to female problem-drinkers.

Alternately, gender atypicality may be common to on-line groups. For example, Finn and Lavitt (1994) noted that females are underrepresented as participants in OMHG for sexual abuse survivors. Similarly, Salem et al. (1997) found that despite the greater prevalence of depression experienced by females (Jack, 1999; Nolen-Hoeksema, 1990), 60% of the participants in an OMHG for depression were male. Of course, earlier findings of disproportionate male representation in OMHG may be related to men's greater use of the internet (Graphic, Visualization, & Usability Center, 1998). The current finding of women's greater participation in an alcohol discussion group, however, stands in contrast to this hypothesis. One explanation consistent with current findings is offered by Finn (1996) who suggests that individuals with minority status in a given community may hesitate to participate in a face-to-face group composed of majority members and thus, feel more comfortable with an OMHG. If this is so, OMHG may increasingly provide support for females experiencing gender atypical concerns as the number of women using the internet rises (Graphic, Visualization, & Usability Center, 1998).

Consistent with Salem et al.'s (1997) findings in an OMHG for depression, male and female participants were virtually identical in terms of the content and process of their posts. The lack of findings for gender differences is not likely attributable to low statistical power. The power of the *t*-tests conducted to detect a medium-sized (e.g., .5 *SD*, Co-

hen, 1992) effect was .98, and their power to detect a small-to-medium sized effect (.35 *SD*, Cohen, 1992) was .81. Hence, if gender effects were present, they must have been of a very small and practically insignificant magnitude.

Of course, the OMHG under investigation represents a distinct self-selected group of men and women. Given that approximately two thirds of American Internet users are male (Graphic, Visualization, & Usability Center, 1998), women who belong to on-line groups may be atypical of female help-seekers and therefore, less likely to use gender-specific styles of communication. Conversely, however, self-help groups may actually favor a more feminine style of communication (Denzin, 1987), and both male and female members may rely on self-disclosure and emotional support as essential strategies in that context. (Salem et al., 1997). Moreover, Internet users tend to be highly educated (Graphic, Visualization, & Usability Center, 1998) and this shared level of education may homogenize communication styles, particularly at the level of written discourse. Of course, the current study only examined the communications of individuals who posted to the list. We had no information about the gender or communication styles of "lurkers," individuals who subscribed to the list but did not post during the course of the study.

To increase our understanding of the processes and functions of mutual help, future research should further explore similarities and differences in the types of communication that characterize different OMHGs. Use of different types of designs and analyses would help to elucidate the nature, patterns, and function of OMHGs. To empirically assess the benefits and outcomes of participating in OMHGs, studies are needed that contrast different mutual-help conditions with comparison conditions (Winzelberg, 1997). In addition, diverse qualitative strategies should be employed to provide in-depth illustrations of communication patterns. Using on-line discussion transcripts to analyze sequential strings of on-line communication through discourse analysis, for example, might further shed light on the patterns and functions of OMHGs (Salem et al., 1997; Salem & Bogat, 2000). Grounded theory (Stauss & Corbin, 1990), and computer-assisted content analyses, would help to enrich our understanding of the content themes that characterize the discussions of different groups.

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