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Coping in Cyberspace: The Impact of Internet Use on the Ability of HIV-Positive Individuals to Deal with Their Illness

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The human immunodeficiency virus (HIV) poses one of the greatest health threats of modern times. The Internet provides unparalleled access to resources that can assist individuals coping with HIV infection. Despite the promise of online resources to help individuals manage and cope with their illness, few studies have investigated the impact of their use. Those that have looked primarily at Internet use from a group perspective. These studies were usually "bounded" as well, focusing on electronic support groups or highly structured computer-based support systems that offer select users prescribed resource options. Little is known about how individuals who are "on their own"—without access to these services—use the vast, unstructured array of resources available through the Internet. The purpose of this study was to investigate the impact of Internet use on the coping ability of HIV-positive individuals.

This research study employed a descriptive qualitative design that used in-depth, semi structured, face-to-face interviews for data collection. The sample of 10 purposefully selected HIV-positive individuals reflected diversity in gender, age, race, education, employment, number of years living with HIV, and Internet use. Data analysis guided by the constant comparative method revealed that the impact of Internet use on coping ability involved three themes: The Internet promotes empowerment, augments social support, and facilitates helping others.

Introduction

Since its emergence in 1981, HIV has posed one of the greatest health threats the world has ever known. This incurable virus and precursor of acquired immune deficiency syndrome (AIDS) continues to exact a staggering human toll. According to the most recent statistics, 30,000,000 individuals are living with HIV/AIDS, 860,000 of whom are residents of North America (Centers for Disease Control, 1998).

Although the spread of HIV beyond the boundaries of the gay community has weakened some prejudicial barriers, it has not completely eradicated the "epidemic of bigotry and blame" (Adam & Sears, 1996, p. xvii) that often accompanies HIV infection. Consequently, "coping with HIV disease has never been simply an issue of dealing with the physical consequences of the disease" (p. xv). HIV-infected individuals must also cope with an often palpable climate of fear and ostracism. With the exception of leprosy in Biblical times, no disease has rivaled the stigmatization sparked by HIV infection. In recent years, massive educational campaigns designed

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to dispel fear and promote understanding have been launched. But despite these efforts, evidence of intolerance and prejudice remains.

Thus it is not surprising that in addition to the physical consequences of illness there are many social, emotional, and psychological issues with which HIV-positive individuals must cope, and for longer periods of time as new treatment regimens, particularly protease inhibitors (PIs), offer the first real hope for survival. Ironically, this hope has been a mixed blessing for the AIDS community, creating both "havoc and happiness" (Matousek, 1996, p. 73). For while joyous over the prospect of being spared certain death, the individuals who successfully respond to PIs must now cope with yet another issue—the overwhelming task of starting over with their lives.

Given the many stressful issues that must be addressed, it is not surprising that a variety of coping strategies are employed by individuals living with HIV. The central role that social support plays in coping with HIV has been underscored in numerous studies (Childwick & Borrill, 1996; Friedland, Renwick, & McColi, 1996; Goodkin, Fuchs, Feaster, Leeka, & Rishel, 1992; Kalichman, Sikkema, & Somlai, 1996; Leserman, Perkins, & Evans, 1992; Nott, Vedhara, & Power, 1995; Reeves, Merriam, & Courtenay, 1999; Solano et al., 1993). In fact, few areas in the coping literature have enjoyed such widespread attention. Three functionally distinct types of social support—emotional, informational, and instrumental—have been identified in studies that focus on the kinds of social support utilized by HIV-positive individuals (Ell, 1986; Friedland et al., 1996; Kalichman et al., 1996). Emotional support consists of "affection, comforting, and encouragement that results in a sense of belonging and personal worth," informational support "increases one's knowledge base," and instrumental support provides "practical assistance with daily living" (Kalichman et al., 1996, p. 590). Research reveals that the value of these three types of support resides in their ability to alleviate the psychological stress that accompanies chronic illness and to provide a buffer against the effects of stressful life events (Cohen, 1988; Green, 1993; Meyerowitz, 1980).

For most HIV-positive individuals, obtaining and sustaining the support of significant others is accomplished through a network of friends, family, and community-based service organizations. The circumstances of some individuals, however, may preclude use of one or more of these sources of support. For example, a newly diagnosed individual, fearful of discriminatory action by an employer should word "get out" about her or his positive status, may be reluctant to seek help from a community-based service organization, despite an urgent need for up-to-date information. Further, lack of proximity to family and close friends is an often-cited reason for insufficient social support, as is progression of the disease itself; it is not uncommon for late-stage HIV infection to render an individual homebound. For these reasons and numerous others, the Internet, with its wide array of functions, provides a viable alternative for individuals who cannot or who elect not to pursue traditional avenues of social support.

Internet resources are used for many purposes, including information, communication, and interaction. The health resources available on the Internet are especially endowed with life-changing potential since they "can help us build our self-confidence and develop the coping skills we need to manage our own health problems" (Ferguson, 1996, p. 42). Yet despite the promise of online health resources, few studies have looked at how they are used by individuals coping with health problems, including HIV. Even less attention has been given to the impact of Internet use on the coping ability of HIV-positive individuals.

Several studies (Boberg et al., 1995; Brennan & Ripich, 1994; Chan, 1995; Gus-

tafson et al., 1994; Pingree et al., 1996; Smaglik et al., 1998; Taylor, 1995) have addressed the use of computer-based health systems that offer an array of services, including information, decision support, and social support to HIV-positive individuals. Although Comprehensive Health Enhancement Support System (CHESS), a widely known interactive health program, and other computer-based systems represent initial attempts to understand how computer resources are used by HIV-positive individuals, their ability to advance our understanding of this phenomenon is constrained in two significant ways. First, these systems are often not operating on the Internet and when they are, they are not available to the public at large, requiring membership and a password. Second, the resources offered by these computer-based systems reflect the design decisions of their developers. In other words, while these systems offer many resource options, the selection is not unlimited. In contrast the Internet, taken as a whole, provides an unparalleled array of resources for individuals coping with HIV infection, and it can be used by anyone with a computer, modem, and a gateway for access. Electronic mailing lists, bulletin board services, computer-based support groups, and World Wide Web sites devoted to every conceivable disease are among the online resources that "have turned the Internet into a treasure trove of medical information" (Hafner, 1996, p. 77).

Studies to date have focused on the use of closed systems of support by individuals who have access to them. Little is known as to how individuals who do not have access to these systems—that is, individuals who are "on their own" in locating online resources—use the Internet in coping with their illness. The literature is particularly silent in regard to the impact of Internet use by individuals coping with HIV. In what ways, if any, does Internet use influence their ability to cope with illness? For example, does having access to information and discussion about the most recent treatment procedures encourage assertiveness in making healthcare decisions? The purpose of this study was to investigate the impact of Internet use on the coping ability of HIV-positive individuals.

Methods

The predominant mode of studying the behaviors and attitudes of persons with HIV/AIDS has been to use researcher-defined, self-report instruments such as questionnaires. "So entrenched is this established model [of research] that funding agencies refuse studies which propose to take the words of seropositive people seriously, studies which use noncausal, qualitative methodologies, or studies which lead to understandings of direct use to HIV-positive people themselves" (Adam & Sears, 1996, p. xxi). Because qualitative research provides an in-depth understanding of a phenomenon from the perspectives of participants *and in their own words*, I elected to use this methodology to investigate the impact of Internet use on the coping ability of individuals living with HIV.

Sample

A purposeful sample of HIV-positive individuals was located through the assistance of a large AIDS service organization (ASO) in the Southeast. Each participant was given \$50; several donated this gift to the ASO. To reflect the diversity characteristic of individuals with HIV, a mix was sought in terms of gender, age, race, education, employment, number of years living with HIV, and Internet use. Participation in the study was limited to individuals who: (a) were at least 21 years of age, (b) had been

seropositive for HIV for at least six months, (c) had utilized the Internet in coping with HIV for at least six months and were using it in this manner at the time of the study, (d) were at a sufficient level of cognitive functioning to recall and articulate the impact of Internet use on their ability to cope with HIV, (e) were at a sufficient level of physical functioning to comfortably endure a 90–120 minute, face-to-face interview as well as a brief follow-up interview (by phone or e-mail) if a review of the data revealed a need for clarification, and (f) lived within the Southeastern United States.

The final sample consisted of 10 adults (6 men and 4 women), ages 27–47. Eight are Caucasian, one is African American, and one is Hispanic. Level of educational attainment ranged from some postsecondary education to completion of a master's degree. Two participants were employed fulltime, and the remaining eight were on disability. Participants had been living with HIV from 4 to 20 years. One was homebound, and another, who lived within an hour of a large metropolitan city, considered herself a resident of a rural area. Participants had been using the Internet for HIV-related purposes from 1 to 10 years.

Data Collection and Analysis

Data were collected from January through April of 1998 using 90–120 minute, semi-structured interviews. A semistructured format is recommended for investigating the “personal significance of what has transpired in the lives of respondents” (Coyne & Gottlieb, 1996, p. 985). Areas explored included participants' history of Internet use, how they use the Internet for purposes related to their illness, and general coping strategies. The interviews were audiotaped and transcribed verbatim.

Data were analyzed inductively using the constant comparative method (Glaser & Strauss, 1967), although the intent of the study was not to build grounded theory. According to this method, data analysis proceeds simultaneously with data collection. I compared a particular incident from an interview with another incident in the same set of data or in another set. A rough classification scheme emerged from this comparison. Further analysis of the data enabled the transformation of this classification scheme into categories and properties that were exhaustive, mutually exclusive, conceptually clear, and sensitizing (Merriam, 1998). This process resulted in findings that represent my interpretation of the impact that Internet use has on the coping ability of participants.

To ensure the trustworthiness of this research, data source triangulation was employed. In addition, the findings were shared with three of the participants, a “member check,” to see if the perceptions “rang true.” I also shared the findings with two colleagues who reviewed her interpretations. Finally, a detailed account was kept of the decisions that guided the research so as to facilitate its replication.

Limitations of the Study

The findings of this study are limited by the fact that the participants are articulate, motivated, well-educated individuals who do not provide an accurate representation of the HIV population worldwide, or even in this country. A second limitation of this study is the small size of the sample, which limits the ability to generalize the findings in a statistical sense. This study also may be limited by a lack of candor on the part of the participants. Not being seropositive for HIV, I am an “outsider” in the HIV/AIDS community. Although the ASO endorsed my legitimacy as an

ethically responsible researcher, participants' feelings about my "right" to engage in HIV-related research may have influenced their willingness, or ability, to be open with me.

Findings

Findings were derived inductively from the analysis of interview transcripts of 10 HIV-positive individuals. Each participant is represented below by a pseudonym. The purpose of this study was to investigate the impact of Internet use on the coping ability of HIV-positive individuals. Three categories of findings reveal this impact: Internet use promotes empowerment, augments social support, and facilitates helping others.

Promotes Empowerment

One impact of Internet use on the participants' ability to cope with HIV is that it promotes empowerment. Several noted a relationship between coping, empowerment, and acquiring information through the Internet. Ike, the editor of a newsletter for HIV-positive individuals, offered a comment that illustrates the connection made by several participants:

Finding out all the information that I can about something is one of my main coping mechanisms. I'm very much a believer in being self-empowered. I credit the fact that I've always been informed about AIDS as one of the reasons I'm still here. The Internet is the source of much of that information. It empowers me.

Similarly, Rheta, a recent, yet enthusiastic, Internet user who now maintains the web page for an ASO, noted that, "Information gives you a sense of power, and you can get a lot of information from the Internet. That certainly helps one cope from a position of strength rather than being a victim or in a position of weakness."

Empowerment meant different things to different participants. Robert, who has been living with HIV for 20 years, articulated his perception that empowerment is closely linked to an increase in confidence, a perception that others also shared. "I'm empowered because of the information I get from the Internet, so I feel more confident when I'm speaking in chatrooms. I can speak with some sort of authority that I know what I am doing." Although he used different words, Quint, who is Hispanic, was nonetheless referring to an increased sense of confidence when he said, "The Internet makes me feel that *I'm* able to achieve accomplishments."

Although some of the participants linked empowerment to more confidence, others associated it with a greater sense of control. The Internet gave Leslie, who at 27 is the youngest participant and African American, "the ability to identify the virus—to identify my enemy and his tactics and come up with tactics to undermine it and build my immune system up." She added, "It reconfirmed the fact that there are things I could do to be more productive in living with HIV." Rheta also described a situation where empowerment and taking control went hand-in-hand. She explained it like this:

Because of what I've learned from the Internet, I have some degree, some control over the situation [regarding medical care decisions]. I'm not passively just accepting whatever my doctor recommends. But take an active

role in standing up for myself. I'm in control when it comes to making choices about certain things related to my HIV.

Augments Social Support

A second impact of Internet use on the participants' ability to cope with HIV is that it augments social support. A few like Cal, whose friends, family, and work situation provide a rich support network, consider the support obtained via the Internet to be supplemental, although Cal acknowledges that he "does give and receive support from individuals over the Internet very definitely." For others such as Robert, the Internet represents a primary venue for social support. He poignantly conveys just how important it is in his efforts to cope with his illness:

The Internet provides the ability to communicate and have a support network online, which I don't have here. It's become difficult for me to get about by public transit anymore, so I don't venture out a lot. I don't think I could survive without the support I receive over the Internet. It's that integral to my life.

Robert indicated that he usually turns to chat rooms for personal support because "in there we talk about everything because HIV covers the entire spectrum of life for a person once they're diagnosed. It's not so much about the disease itself as in how to develop coping mechanisms for the problems that develop." Robert finds that "social skills begin to lack in people with AIDS because we often can't get out, we're not so exposed." He viewed chat rooms as a place where a person can go to receive validation, indicating that it is quite common to see comments like, "No, your feelings are perfectly fine for that kind of situation. Absolutely normal. You should not have any regrets."

Although some might postulate that social support received over the Internet constitutes a "second best alternative," the participants in this study dispute this notion. In certain situations, they found that the Internet serves as a better source of support in coping with HIV. Ike, for example, explained that it is difficult to talk about "heavy things, like people dying or all your personal things like diarrhea or nausea and all this stuff" and sometimes, in "real life," you cannot find people who "know about the things you're talking about." On the Internet, however, one can. The Internet connects Ike with "people who have gone through it before or know someone who did." Jack, who at age 35 is completing his college degree, provided a second example of how the Internet can facilitate receiving support from individuals who can identify with one's situation:

The support I received from the Internet helped me stay on a drug. When I started on Ritonavir, it was absolutely God-awful. I went into that little forum on America Online, and I was just raising hell about how I hated it. And I mean everybody chimed in, "I hate it, too. Give it three weeks. It will get better." I did, and it did. So, online support helps in that way.

Several participants noted that a salient characteristic of the Internet's ability to augment social support is because, unlike people, "it's always there." Robert explained, "And if I'm feeling down and I need an up, I know I can go into an HIV chat room and get support. No matter what time, day or night, 24 hours a day." Vicky shared a similar observation:

If you're in a bad place or whatever and there's nobody around, which is often when you live on a rural postal route, you can turn on the Internet and you've got mail. It's like that lady in the commercial says, "It's like there's a present waiting for me." It is. You can even find somebody online at 11:00 at night after the husband and the kid have gone to bed and you're still in that real quiet space or whatever. On the Internet, someone's there all the time, you know.

Facilitates Helping Others

A final impact of Internet use on the participants' ability to cope with HIV is that it facilitates helping others. Early in the interviews, most participants identified being of service to others, through opportunities such as volunteering and speaking to groups, as a way they cope with HIV. Most found that the Internet offers a means to facilitate this particular coping strategy.

Ivan described how the Internet provides a way for him to help others in his work as a counselor at a wellness clinic:

I use the Internet to help clients of mine. I had a man come in. . . . He came in and talked to me and he's thinking like many people with AIDS, "Gee, I didn't die." And he's like, "What do I do?" He told me that he was thinking about going back to school. Well, I got him to open up a bit about his interests and on the Internet, I found a perfect degree program for him that's a long-distance learning program. We're meeting soon for me to share this information with him.

Beth also revealed how the Internet enables her, as the only female peer counselor at a local ASO, to help other women as well as educate her male colleagues:

People often literally run to me for information because I'm a woman. It's like, I'm really supposed to know things like does AZT mess up your menstrual period just because I have estrogen? [laughs] But I know I can find out about this kind of thing on the Internet. I know there are women out there living with AIDS who are starving for information. I'm supposed to write an article in the newsletter about web sites devoted to women with AIDS. This gives me a way to help others, and I like being able to do this.

Rheta also noted that through the web page she and her husband designed for the local ASO where she volunteers that they are "dispensing helpful information and resources to people where there was a lack of resources, especially resources for women. There were no women's support groups when I first tested positive." She added, "Feeling that I'm contributing is a positive way to use my energies. I like thinking that my efforts help others."

Nearly all the participants in this study realized that in helping others, they helped themselves, and that the Internet provided a way for this process to unfold. Jack provided a moving example of this epiphany:

I realized two things. One, that I had something to offer folks in chat rooms because I had experienced some things, knew about things that maybe they didn't. And then, also, I think it was the first time that I realized, I don't want to say the importance of being involved because I already knew that, but the importance of *sharing* what I knew. I think up until that time I just

always kind of looked at it very . . . kind of self-centered: This is information that I need because I need to stay well and, you know, I want to stay on top of everything. And I didn't really get the fact that a lot of what is going to keep me on top of things and keep me well is by turning right around and giving all that away. And that was kind of a revelation. I hate to use clichés, but it really is sort of like the more you put out, the more you get type of thing. The Internet gives me information and a way that I can in turn share it with other people.

Discussion

Discourse pertaining to Internet use by HIV-positive individuals has tended to reflect the thoughts and speculations of policymakers, health educators, and other leaders in the field. Ferguson (1997) articulated the seemingly obvious, but consistently overlooked, need to let HIV-positive individuals speak for themselves:

We must incorporate the perspectives of people who are living with HIV. What *are* their perspectives? How do they deem the information to be valuable? Here we have all this valuable information on the Internet, but what purpose is it serving? [emphasis in original] (p. 226)

This research addressed some of these very issues by giving HIV-positive individuals a forum to share the impact of Internet use on their ability to cope with their illness. Clearly, they considered the Internet beneficial in coping with HIV and identified three ways it is particularly helpful: Internet use promotes empowerment, arguments social support, and facilitates helping others.

A prominent impact of Internet use in coping with HIV is that it *promotes empowerment*. Empowerment involves taking action to change situations in an active, outwardly focused manner. Marsick and Watkins (1991) maintain that "empowerment suggests an emancipation from something" (p. 99). For individuals living with HIV this "something" is the perception that there is little they can do to influence the quality or duration of their lives. Internet use by the participants in this study fostered the belief that they could take action to effect change in their lives. Leslie, for example, discovered through online research, what she called a "little digging," that she could get "a lot of free supplies" through the Internet. This prompted her to investigate obtaining other needed items in this manner.

Several participants associated empowerment with a greater sense of control. Researchers (Simons, Kalichman, & Santrock, 1994; Stewart & Gregory, 1996) have noted the connection between empowerment and assuming control of one's life. Stewart and Gregory, in examining the experiences of a long-term AIDS support group, uncovered six content themes. One theme, "making choices," involved learning how to take control and was associated with empowerment. "Empowered members assume[d] a more collaborative decision-making role with their physicians" (p. 291). Interestingly, many of the participants in this study discussed their feelings of empowerment within the context of the physician/patient relationship. Quint, for one, talked about how Internet resources empowered him to become a more active partner in health care decisions:

I got to know the basic information about my current medication regimen through the Internet. And it's not an HIV drug; it's a drug that is for leukemia, and I found a couple of studies [on the Internet] where it was used for

HIV. I shared them with my doctor and we decided to introduce some new pharmaceutical agents in my regimen, and they have produced a very significant improvement in my physiology.

It should be noted that although study participants generally adopted a positive view of the Internet as a vast source of information, they noted a downside as well. Perhaps Jack summed up the situation best when he jokingly said, "The greatest thing about the Internet? There's so much there! The worst thing about the Internet? There's so much there! It's frustrating." Ike also underscored the fact that although "there is an incredible number of resources [for HIV] on the Internet, you never know which ones are accurate . . . and that's why it's important sometimes to get your information from a really reliable source."

O'Brien (1995) found that "long-term survivors of HIV repeatedly spoke of the importance of taking control" (p. 114). According to Jue (1994), the CDC definition of a long-term survivor is someone who has lived at least three years after an AIDS diagnosis. She noted that nearly all long-term survivors of AIDS are well-informed and assertive health care consumers who are not reticent about disagreeing with their doctors or even changing doctors if they are not satisfied with their health care. Although certainly it is beyond the scope of this research to suggest a causal relationship between the empowerment promoted by Internet use and long-term survival in HIV-positive individuals, it is nonetheless interesting to note that the participants in this study have been living with HIV for an average of 10.5 years.

Whereas several participants associated empowerment with a greater sense of control, some linked it to increased confidence. For many, confidence was manifested in the conviction that they could marshal their personal resources to accomplish whatever needed to be done. Cal provided a good illustration of the way Internet use forges a link between empowerment and increased confidence:

The Internet has made me more empowered, more confident. I've been very fortunate and have not been actually ill with a 1 opportunistic infection. But I know that should something happen, then I know where I can go to find out information very quickly on it. I didn't know that it [Internet] would let me just feel so much better . . . that it would make me feel as confident as I am.

The centrality of confidence in approaching life's challenges from an empowered position was noted in Sobel's (1995) discussion of a self-management course designed to help patients cope better with the pain, disability, fear, and depression associated with arthritis. He concluded that "feeling confident that one is able to walk up two steps may be more helpful than being able to walk up a whole flight but thinking oneself incapable of doing so" (p. 236).

Internet use also influences the ability to cope with HIV because it *augments social support*. There was considerable variation among the study participants regarding the extent to which they use the Internet for social support. Some, like Cal, whose friends, family, and work situation provide a satisfying support network use the support capabilities of the Internet in a supplemental way. For others, Internet support occupies a more central role, significantly contributing to their sense of adequate social support. Although it is logical to assume that the support capabilities of the Internet are more important for homebound individuals, such as Robert, and those whose geographical locations limit access to alternative sources of

support, like Vicky, it would be a mistake to categorically make this assumption, as Leslie's situation illustrates. Leslie lives in the heart of a major metropolitan area, yet states, "I get my support through my e-mails" because "my mom is not able to support me because she's so overwhelmed with the issues of just coping [that] she's not able to offer support." Leslie's full-time, home-based employment as an AIDS activist also precludes the establishment of supportive relationships in the workplace.

Kalichman et al. (1996) noted that there are three functionally distinct types of social support. *Emotional support* consists of "affection, comforting, and encouragement that results in a sense of belonging and personal worth," *informational support* "increases one's knowledge base," and *instrumental support* provides "practical assistance with daily living" (p. 590). The participants in this study frequently used the Internet for emotional and informational support. Robert's statement, "and if I'm feeling down and I need an up, I know I can go into an HIV chat room and get support," is an example of obtaining emotional support via the Internet. Jack's experience of receiving advice from other HIV-positive individuals to stay on the drug Ritonavir—to "give it three weeks. It will get better"—demonstrates the administration of informational support on the Internet. The medium itself may account for why the participants in this study did not use the Internet for instrumental support; separation by time and space presents logistical barriers in the delivery of concrete, direct forms of assistance.

Paradoxically, characteristics of the medium may account also for its ability to provide emotional and informational support. Several participants noted that one of the more salient features of the Internet is that, unlike people, it is "always there." Online there is always someone available. Healy (1997) underscored this observation: "The networked citizen is never alone. Synchronously or asynchronously, the sun never sets on the virtual community" (p. 60).

A final prevalent impact of Internet use is that it *facilitates helping others*. All 10 participants volunteer time to HIV-related causes. Nine specifically mentioned "helping others" or "being of service to others" as a strategy they employ in coping with HIV. This particular strategy strongly resonates with the findings of a study by Barroso (1997), who discovered that reconstructing one's life within the context of AIDS involves "helping others with HIV" (p. 67). Leserman et al. (1992) reported similar findings, linking participation in the AIDS community with the use of healthy coping strategies.

Many of the participants shared specific instances where the Internet facilitated their ability to help HIV-positive individuals. Beth stated that through her position as a peer counselor at an ASO she is able to help women with HIV by locating hard-to-find, women-specific information on the Internet and sharing it with them. Rheta also noted that the web page she and her husband designed for the ASO where she volunteers serves others by "dispensing helpful information to people . . . especially resources for women."

Nearly all the participants noted that in helping others they reaped personal rewards. For Ike, serving as editor of a newsletter that provides up-to-date HIV treatment information creates a "sense of doing something useful and important." Jack's experience providing information to others in a chat room led him to conclude that "it really is sort of like the more you put out, the more you get type of thing." Schafer (1996) coined the phrase "egoistic altruism" to describe the self-fulfillment experienced in contributing to others' well-being. He maintained that his variant of Selye's (1974) "altruistic egoism"—"to earn thy neighbor's love" (p. 5)—

promotes a sense of self-reliance that is missing from Selyle's concept. Egoistic altruism incorporates the notion that the individual "values but does not depend on others' feedback, acknowledgment, or praise" (Schafer, p. 586). This accurately depicted the helping efforts via the Internet of the participants in this study.

Conclusion

There is growing interest among health care professionals in the creation of structures and programs that alleviate stress and nurture the coping efforts of their clients. The findings of this study indicate that Internet use fosters adaptive coping efforts and offers yet another strategy for individuals in their struggle to live with HIV. It appears important that health care professionals realize the promise afforded by this communications technology. In a recent statement in which he noted that AIDS has moved up to fourth place among all causes of death worldwide, Peter Piot, Executive Director of UNAIDS, remarked that this dramatic rise "challenges the world to make better use of the tools we have to reduce the impact of AIDS" (UNAIDS, 1999). Surely, the Internet is one of these tools.

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