

Internet Use for Social Support Among People Living with HIV/AIDS: How Did Individual Differences Predict Support Frequency and Satisfaction?

Nuchada Dumrongsiri

Vikanda Pornsakulvanich

ABSTRACT

The current study was aimed to investigate Internet use for social support among people living with HIV/AIDS in Thailand through a communication perspective. HIV/AIDS is perceived negatively as embarrassing or stigmatized illness (Bargh & McKenna, 2004; Rokach, 2000). People with HIV/AIDS are more limited to seek help overtly in face-to-face interactions and may turn to the Internet as an alternative way for social support. Two purposes of this study were: (a) to clarify whether people with certain dispositions (i.e., stigmatized characteristics, loneliness, and locus of control) differed in Internet motives and amount and duration of Internet use and (b) to examine predictors of online support frequency and satisfaction.

Nuchada Dumrongsiri received her Doctor of Philosophy in Communication Studies from Kent State University, Ohio, U.S.A. Her research interests include interpersonal communication, social support, comforting messages, persuasion, and organizational communication. Currently, she is a full-time instructor in Department of Public Relations, Albert Laurence School of Communication Arts, Assumption University, Thailand.

Vikanda Pornsakulvanich received her Doctor of Philosophy in Communication Studies from Kent State University, Ohio, U.S.A. Her research interests include media uses and effects, new media technologies, and integrated marketing communication. Currently, she is an Assistant Professor in Department of Marketing, Martin de Tours School of Management, Assumption University, Thailand.

The authors would like to thank Assumption University for its support on a research grant for this research project.

Participants (N = 130) were users of the websites devoted to people living with HIV/AIDS. The results showed that dispositions contributed to differences in the duration of how long people had engaged in the websites rather than in the amount of time people spent on the sites daily. Surprisingly, participants who were non-HIV/AIDS infection, less lonely, and internal locus of control had participated in the website for longer months than did those with HIV/AIDS. Also, support reciprocity motive was a positive predictor of emotional and tangible support. Among all predictors, loneliness negatively predicted online support satisfaction. The more people are lonely, the less they are satisfied with online support.

Keywords: Social support, Online support, Internet, Motives, HIV/AIDS, Loneliness, Locus of control, Stigmatized identity

Introduction

Social support is a fundamental component of human communication and relationships (Albrecht, Burleson, & Goldsmith, 1994). Social support is conceptualized as a communication process to express emotional and appraisal support and to provide advice and other instrumental support (House, 1981). It links to satisfaction and ties to physical and psychological well-being (Goldsmith, 1994).

Social support is provided in various forms. Although researchers have proposed different classifications of such support, four common forms include: (a) emotional support (e.g., empathy, caring, trust, and love); (b) instrumental support (e.g., transportation, equipment, and money), (c) informational support (e.g., advice or suggestion to cope with the problem), and (d) appraisal support

(e.g., information to increase self-evaluation and social comparison) (Albrecht & Adelman, 1984; Cohen & McKay, 1984; Cutrona & Russell, 1990; House, 1981).

People need social support when they face with stress and problems. Frequently, the sources of social support are individuals with whom people have close relationships (Cutrona, Suhr, & MacFarlane, 1990). Friends and family members are the close ones who provide social support and help. Sun and Stewart (2000) found family as the most frequent source of social support among cancer patients.

However, some people turn to others whom they have not known or met, especially through computer-mediated communication. The advent of the new communication technologies such as the Internet provides people with new opportunities to access online support to find similar others, seek help, and share opinions. Evidently, half of the Internet users accessed the Internet for health-related information and support (Aspden, Katz, & Bemis, 2001).

The extensive use of the Internet has flourished many online services including online support. Online support groups refer to "forums" that are organized in different forms including newsgroups, bulletin boards, chat groups, conferences, and electronic mail (Meier, 2000) to provide mutual aids for people with chronic conditions and life-threatening illness (Bargh & McKenna, 2004; Coulson, 2005). About one quarter of the disease-related users had joined online support groups (Rice, 2001).

As online support is increasing, many questions arise and have been investigated. Several researchers described those who used online support by examining types and characteristics of online support group (Davison, Pennebaker, & Dickerson, 2000;

Lieberman & Snowden, 1993; Meier, 2000; Oravec, 2000). Many clarified how online support yielded advantages and disadvantages (Campbell, Cumming, & Hughes, 2006; Shaw & Gant, 2002; Waldron, Lavitt, & Kelley, 2000; Weinberg, Schmale, Uken, & Wessel, 1995). Some have investigated the differences between traditional support in face-to-face interactions and online support (Barak & Bloch, 2006; Cohen & Kerr, 1998; Winzelberg, 1997) and the factors that motivated people to seek online support (Wright, 2002a, 2002b).

Nevertheless, less is known about online support in non-Western cultures. The majority of prior studies using Western populations reveal the Internet as a popular source for people dealing with chronic conditions and illness (Bargh & McKenna, 2004; Coulson, 2005; Wright, 2002b). Whether the findings from those studies are generalized to other populations is questioned. The empirical evidence shows that people tend to be motivated differently by cultural differences in traditional support context. In Western sample, the prominent goals in face-to-face support were more passive (i.e., *to assure of availability for help and to divert attention from negative feelings*), whereas those of Thai sample reflected active aspect (i.e., *to comfort and to resolve the situation*) (Dumrongsiri, 2009; Dumrongsiri & Pornsakulvanich, 2007). Support providers in Western cultures are aware of autonomy and privacy, and then give help when it is requested. Without a request for help, effective support was to assure help (e.g., "I am here for you if you need me") or to distract negative emotions (e.g., "let's talk about something else if you're not ready"). On the other hand, the support goals that imply permission were not reported among Thais. Asian cultures value group involvement and well-being. Withholding

help until it is permitted may signify low interest in group (Goldsmith & Fitch, 1997). Further research examining why and how people with chronic conditions in non-Western countries seek and provide support from virtual communities are warranted. These research may provide insights to broaden and generalize social support across cultures in online settings.

Research Objectives and Scope

The current study was aimed to investigate Internet use for social support among people living with HIV/AIDS in Thailand through a communication perspective. HIV/AIDS is perceived negatively as embarrassing or stigmatized illness (Bargh & McKenna, 2004; Rokach, 2000). People with HIV/AIDS have encountered various forms of discrimination. In Thailand, about 95% of respondents reported that they were rejected for participating in religious activities, 21.2% rejected by life assurance companies for their application, and 19.7% rejected for medical services ("HIV/AIDS patients," 2009). Thus, they are more limited to seek help overtly in face-to-face interactions and may turn to the Internet as an alternative way for social support. Papacharissi and Rubin (2000) suggested that people used the Internet as a functional alternative to other communication channels when these channels were not available or rewarding.

According to the 2007 data, about 64.4% of people living with HIV/AIDS around the world are in Africa, followed by Asia with 21.4% (AIDS & HIV Charity AVERT, 2009a). Since 1984, HIV/AIDS has become a national epidemic for Thailand and remains prevalent as the second highest in the region. In 2007, the number of people with HIV/

AIDS in Thailand is 610,000 (AIDS & HIV Charity AVERT, 2009b). The increasing number of the infected persons affects Thai and global society altogether. This study serves as an exploratory step toward the study of the influence of new media technologies on Thai people's well-being. A better knowledge on how to improve their quality of life would lessen national problems.

Specifically, this study was based on the uses and gratifications perspective to understand why and how people with HIV/AIDS use the Internet for social support. The variables being examined included individual differences in stigmatized characteristics, dispositions (i.e., loneliness and locus of control), Internet motives, Internet use, and online support satisfaction and frequency. Literature related to online support among people living with HIV/AIDS and other chronic conditions was reviewed in the following section.

Conceptual Framework and Literature Review

Uses and gratifications (U&G) is based on a psychological perspective and suggests that people differ in their social and psychological conditions, which may affect how and why they use media to fulfill their needs (Katz, Blumler, & Gurevitch, 1974). According to Rubin (2002), the theory rests on several assumptions. First, people are active, goal-directed, and motivated to select and use the appropriate channels of communication to gratify their needs and wants. Second, people differ in communication behaviors based upon their social and psychological factors. Then, these social and psychological situations influence how well media can satisfy people's needs and wants. Media can be functional alternatives to other channels of

communication. Lastly, people are usually more influential than media, but not always. The U&G perspective provides a theoretical framework for this study to understand the influences of different needs and motives on using Internet for social support.

Stigmatized Characteristics

Relatively few studies of online social support have investigated motives and individual differences as predictors of online support behavior (Coulson & Knibb, 2007; Wright, 2002a, 2002b). However, past research on online social support reveal the findings that may reflect the reasons for using the Internet to seek support. Stigmatized characteristics such as homosexuality and embarrassing illness may act as a leading reason motivating people to seek support from the Internet groups (Bargh & McKenna, 2004; Davison et al., 2000; Lieberman & Snowden, 1998; Meier, 2000). Having stigmatized characteristics may cause psychological and functional effects. Psychological effect refers to an individual's feelings of being stigmatized or disapproved by rare or embarrassing illness, identity, or condition. Functional effect refers to an individual's needs for better advice from others who share similar problems and attitudes.

Lieberman and Snowden (1993) reported physical illness as a primary reason for participating in self-help group. Davison et al. (2000) found that people with rare illness, including alcoholism, cancers, AIDS, depression, and diabetes, had the highest activity among all online self-help groups. Davison et al. suggested that the two motives driving people to participate in online support groups were: (a) high social marginalization-embarrassing, stigmatizing, and disfiguring illness-and (b) overlooked illness.

Consistently, Wright (2002a) studied online support groups for diverse health problems such as alcoholism, eating disorder, breast cancer, and HIV/AIDS infection and reported that similarity was correlated with interpersonal motives (i.e., inclusion, affection, and control) for daily communication within the online support group. Wright implies that members are attracted to the group because of sharing similarity in illness, experience, and attitudes.

Furthermore, Wright (2002b) indicated that the most important advantages for participating in online cancer community were the similarity and other members' experience with cancer issues. Also, interpersonal motive was the most prominent reason for using online support among cancer patients, followed by information, convenience, and passing time motives. Also, Coulson and Knibb (2007) found that people suffering from food allergies participated in online support groups to alleviate feelings of social isolation, being lonely, and stigma. Other reasons were to access support with ease and speed and to discuss coping strategies.

Based on the literature, online support seekers seem to be motivated psychologically and functionally to find someone who is similar to them in terms of problems and situations. Psychologically, they may feel less stigmatized and less lonely. Functionally, they may also learn from others who are facing the same health-related problem and perceived as expert. It is possible that support seekers may turn to the Internet to search for better advice, which they cannot find from significant others. Many patients claimed that their significant sources of support did not understand the help they need during their diagnosis and might perceive their illness as stigmatizing (Rudy, Rosenfeld, Galassi, Parker, & Schanberg, 2001).

In order to clarify whether feelings of being stigmatized motivate people to seek support from others on the Internet, this research project was to compare differences between people with stigmatized and non-stigmatized identities in Internet use and Internet motives (see Hypotheses 1a, 2a, and Research Question 1).

Dispositions

The literature shows that stigmatized characteristics, especially embarrassing illness, tend to be a reason for seeking online support. However, past research did not focus on individual differences in psychological dispositions of online support seekers. Possibly, those who experience the rare or embarrassing illness may feel lonely and lose control over life more than those who do not have such condition.

Besides suffering from physical illness, people with HIV/AIDS are also faced with emotional pain. They tend to often feel stigmatized, isolated, and lonely due to social rejection and public blame on the victim (Dahl, 2006; Rokach, 2000). Seventy-five percent of people with HIV/AIDS live alone and commonly lose both a job and social interactions (Rokach, 2000). In Thailand, many people with HIV/AIDS refused *home health care service*, which the health team from hospitals visit patients at home for advice, because of the fear to be rejected by the community and the fear to make family and relatives embarrassed (Yanvaidasakol, 2001). Patients with other chronic illness found online support reduce their feelings of aloneness, social isolation, and stigma (Coulson & Knibb, 2007). Thus, the authors speculated that to what extent people feel lonely leads to differences in Internet use for support (see Hypotheses 1b and 2b).

Locus of control is another disposition that may influence the use of Internet for support. Locus of control refers to the extent to which people believe in life outcomes affected by their own actions as opposed to external factors such as luck, chance, and powerful others (Rotter, 1966). Locus of control has been observed as a buffer against stressors and tied to health-related behavior and psychological adjustment (Sun & Stewart, 2000). Chronic illness requires self-control and compliance to medical prescription and advice. Coulson and Knibb (2007) noted that people coping with food allergies need self-control to be attentive to food selection, and this cautious behavior may affect social relationships and the quality of life as well. The authors hypothesized that people living with HIV/AIDS may vary in their beliefs regarding self-control over their lives and then use Internet for support groups differently (see Hypotheses 1c and 2c).

Online Support Satisfaction and Frequency

In addition, another group of previous research investigated online support with a focus on its effects over well-being. Several studies examined the nature of support among members of online support communities and revealed consistent findings. People with stigmatized characteristics exchanged information support most frequently (Coulson, 2005; Dahl, 2006; Mo & Coulson, 2008).

Mo and Coulson (2008) analyzed the messages posted on online HIV/AIDS support groups and found information and emotional support were most offered, followed by esteem, network, and tangible support. Similarly, Dahl (2006) indicated information support (47.6%) as the most frequently discussed topic on the online forum among people with HIV/AIDS, followed by emotional support

(36.0%) and instrumental support (16.4%). Coulson (2005) reported information support as the prominent discussion on the bulletin board for people living with irritable bowel syndrome.

The current study was to further investigate the predictors of online support satisfaction and frequency. The literature clearly illustrates type of support shared within the online community. However, little is known on what make people feel more or less satisfied with support and what motivate people to seek for certain support. Research Questions 2a and 2b were proposed to examine whether loneliness, locus of control, Internet motives, and Internet use predicted online support satisfaction and frequency.

Hypotheses and Research Questions

- H1a: There was a difference between stigmatized and non-stigmatized groups in the amount of Internet use.
- H1b: There was a difference between lonely and non-lonely groups in the amount of Internet use.
- H1c: There was a difference between internals and externals in the amount of Internet use.
- H2a: There was a difference between stigmatized and non-stigmatized groups in the duration of Internet use.
- H2b: There was a difference between lonely and non-lonely groups in the duration of Internet use.
- H2c: There was a difference between internals and externals in the duration of Internet use.
- RQ1: Were there differences between stigmatized and non stigmatized groups in Internet motives?

RQ2a: How did loneliness, locus of control, Internet motives, and Internet use predict online support satisfaction?

RQ2b: How did loneliness, locus of control, Internet motives, and Internet use predict online support frequency (i.e., emotional, tangible, and informational supports)?

Method

Research Design and Sample

This study was designed as a cross-sectional study in which data was collected at one point in time. Survey research was employed to collect the data from people who used the Internet to seek for social support. Online support seekers refer to people who were facing a similar situation help one another via the Internet (King & Moretti, 1998). They would receive emotional, informational, and tangible support and share experiences to cope with the similar problem.

Previous research suggested that online support seekers were people who have experienced health-related problems such as alcohol, eating disorder, breast cancer, and HIV/AIDS infection (Rice, 2001; Wright, 2002a, 2002b) and those who had stigmatized and constrained identities (McKenna & Bargh, 1999). Stigmatized identity is the characteristic perceived as embarrassing in nature (e.g., non-mainstream sexual preferences, embarrassing illness), whereas constrained identity is the true characteristic perceived negatively in everyday life (Bargh & McKenna, 2004). For example, people with high socioeconomic may be afraid to express their true selves such as weakness and personal phobia due to a concern for their negative image in professional life.

In this study, a purposive sampling was used to collect the data from online support seekers with a certain stigmatized illness, HIV/AIDS. Survey questionnaire was posted for about two months on the certain Internet websites, www.kaewdiary.com and www.pha.narak.com, where people living with HIV/AIDS meet online as a support group. The website [kaewdiary.com](http://www.kaewdiary.com) is personally developed by the person under the name Kaew who is infected with HIV/AIDS and has written her diary on the website since July 2001 (Mookaew, 2009). The [pha.narak.com](http://www.pha.narak.com) webboard is personally developed by the person under the name Moha in April 2006 and supported by www.narak.com, which is ranked as one of the top-ten websites in Thailand by Thailand Web Directory at Truehits.net (Moha, 2006). The website uses PHA to stand for "People living with HIV and AIDS in Thailand" and serves as a forum for various topics and activities for members. The two websites become online communities for people, both infected and non-infected, to share experiences and information relevant to the HIV/AIDS.

Participants completed a self-report questionnaire posted on the two websites. An informed consent was presented before entering the questionnaire pages to ensure participants' confidentiality of their responses. The questionnaire included four main sections: dispositions, Internet motives and Internet use, online support satisfaction and frequency, and demographics (i.e., gender, age, income, occupation, education, and infection status).

A total of 130 participants were 46.2% male and 53.8% female. About 50.5% were non-HIV infected and 49.5% were HIV infected. They ranged in age from 18 to 54 ($M = 33.72$, $SD = 7.19$).

A majority of the participants were private sector employees (39.6%), followed by business owners (24.5%), government officers (10.4%), and students (5.7%). Approximately 60.4% of participants received monthly income less than 25,000 Baht. The majority of participants hold Bachelor Degree (64.2%), followed by Master Degree (12.3%), Vocational Degree (12.3%), and High School Diploma (11.3%).

Measurement

Loneliness

The UCLA Loneliness Scale (Version 3) (Russell, 1996) was used to measure participants' loneliness. The scale consisted of 20 items asking participants to indicate how often they feel lonely, ranging from *Never* (1) to *Always* (4). Higher scores indicated higher degree of loneliness. The mean of the index was 2.24 ($SD = 0.46$, Cronbach $\alpha = .86$). Hence, lonely people represented those who fell above the mean (2.24), whereas nonlonely people represented those who fell below the mean.

Locus of Control

A shortened version of Levenson's (1974) scale was used to measure participants' beliefs about his or her control over life and environment. It was used reliably in prior studies (e.g., Haridakis, 2006; Pornsakulvanich, 2008; Rubin, 1993). Participants indicated their agreement with twelve statements, ranging from *Strongly Disagree* (1) to *Strongly Agree* (5). The statements represented powerful

others control (e.g., "I feel like what happens in my life is mostly determined by powerful others"), chance control (e.g., "To a great extent my life is controlled by accidental happenings"), and internal control (e.g., "My life is determined by my own actions"). Powerful others control and chance control represented external control. In this study, responses to external control items were recoded. Higher scores indicated greater internal control. The mean of the index was 3.65 ($SD = 0.46$, Cronbach $\alpha = .77$). Internals represented those who fell above the mean (3.65), whereas externals represented those who fell below the mean.

Internet Motives

Internet Motives Scale (Pornsakulvanich, 2007), adapted from Computer-Mediated Communication Motives Scale (Papacharissi & Rubin, 2000) and tested in Thai context, was used to measure the reasons why people used the Internet for social support. The scale consisted of 21 items with the response options range from *Not at All* (1) to *Exactly* (5) like one's own reasons for using the Internet. The KMO value of .85 indicated that the correlation matrix was sufficient for factoring (George & Mallery, 2003). The significant Chi-Square (.000) showed that the data did not produce an identity matrix and approximately multivariate normal for further factor analysis. Overall, the factor analysis yielded three factors explaining 65.37% of the total variance (see Table 1).

Table 1 Factor Loadings for Internet Use for Social Support

Scale Items	Factor Loadings		
	1	2	3
<i>Factor 1: Relaxation ($\alpha = .90$)</i>			
To keep me a company.	.86	-.28	.25
Because it gives me something to do to occupy my time.	.80	-.34	.07
Because it relaxes me.	.80	-.51	.31
Because it's entertaining.	.78	-.44	.23
Because it passes the time away, particularly when I'm bored.	.77	-.35	.39
Because I just like to use it.	.77	-.44	.44
Because it's enjoyable.	.74	-.12	.30
Because it is a pleasant rest.	.65	-.20	.39
<i>Factor 2: Information-Seeking ($\alpha = .85$)</i>			
To search for information.	.28	-.90	.04
To keep up with the current issues and events	.37	-.87	.04
Because it's easy to find information	.40	-.84	-.03
<i>Factor 3: Support Reciprocity ($\alpha = .66$)</i>			
Because I want someone to do something for me.	.20	.24	.77
To get something I don't have.	.34	-.10	.76
To advise others what to do.	.31	-.14	.76
<i>Mean</i>	3.84	4.54	3.06
<i>SD</i>	0.77	0.59	0.85

Note. $N = 130$. The Kaiser-Meyer-Olkin (KMO) coefficient was .85. The Bartlett's test of sphericity coefficient was significant (.000).

Means were computed from a 5-point scale ranging from *Not at all* (1) to *Exactly* (5) like the participants' own reasons for using the Internet



The scale was factor analyzed using principal components analysis with oblimin rotation. The criteria for retaining a factor were an eigenvalue equal to or greater than 1.00 and a 0.60/0.40 rule for primary and secondary factor loadings. Fourteen items were remained while seven items were excluded because they did not have a clear loading in any factors.

Factor 1, *relaxation* (eigenvalue = 5.82), accounted for 41.60% of the variance. This factor reflected using the Internet for leisure, passing time, and entertainment. Factor 2, *information-seeking* (eigenvalue = 2.13), accounted for 15.19% of the variance. This factor reflected using the Internet

for finding and sharing information. Factor 3, *support reciprocity* (eigenvalue = 1.20), accounted for 8.60% of the variance. This factor reflected using the Internet asking for and sharing support.

Internet Use

Internet use refers to the amount and duration of use in particular Internet websites including a *kaewdiary* website (70%) and a *phanarak* website (9.2%). The amount of Internet use was operationalized as the number of minutes participants used the selected Internet website each day ($M = 69.62$, $SD = 90.80$). The duration of Internet use was operationalized as how many months

participants used the selected Internet website ($M = 27.23$, $SD = 25.68$). In addition to the amount and duration of use, general questions relating to Internet use were included such as, "which website you participated the most" and "which activities you usually did on the website?"

Online Support Satisfaction

Online support satisfaction was operationalized as the extent to which people feel satisfied with their support received from the interactions with others on the Internet. Online Support Satisfaction Scale was adapted from Sarason, Shearin, and Pierce's (1987) Social Support Questionnaire Short Form (SSQSR). The scale consisted of 6 items asking participants to indicate how satisfied with their online support, ranging from *Very Dissatisfied* (1) to *Very Satisfied* (5). The mean of the index was 4.11 ($SD = 0.73$, Cronbach $\alpha = .92$).

Online Support Frequency

Online support frequency was operationalized as how often participants received online support including emotional, tangible, and information support. Online Support Frequency Scale was adapted from the SSQSR (Sarason et al., 1987). The scale consisted of 10 items, ranging from *Never* (1) to *Always* (4). The mean of the index of emotional support was 2.47 ($SD = 0.86$, Cronbach $\alpha = .92$); tangible support was 1.77 ($SD = 0.77$, Cronbach $\alpha = .82$), and information support was 2.87 ($SD = 0.74$, Cronbach $\alpha = .83$).

Results

For all Hypotheses 1 and 2, a separate independent-samples t test analysis was employed to determine differences between stigmatized and non-stigmatized groups, lonely and nonlonely,

internals and externals in the amount and duration of use. Hypothesis 1a posed that there was a difference in the amount of Internet use between stigmatized and non-stigmatized groups. Hypothesis 1a was not supported. An independent-samples t test indicated no difference between stigmatized and non-stigmatized groups in the amount of Internet use in a certain support website, $t(103) = 1.08$, $p > .05$.

Hypothesis 1b posed that there was a difference in the amount of Internet use between lonely and nonlonely. Hypothesis 1b was not supported. The results indicated no difference between lonely and nonlonely in the amount of Internet use for social support, $t(109) = 1.56$, $p > .05$.

For Hypothesis 1c, an independent-samples t test indicated a significant difference between internals and externals in the amount of Internet use, $t(104) = 4.59$, $p < .05$. Hypothesis 1c was supported. Internals ($M = 87.35$, $SD = 120.81$) were more likely to spend time on the Internet seeking support than those were externals ($M = 63.53$, $SD = 67.01$) (see Table 2).

For Hypothesis 2a, the results showed a significant difference between stigmatized and non-stigmatized groups in the duration of Internet use in a certain support website, $t(103) = 6.82$, $p < .05$. Hypothesis 2a was supported. A non-stigmatized group ($M = 31.57$, $SD = 28.43$) tended to participate in the website for a longer period of time than were a stigmatized group ($M = 21.73$, $SD = 22.46$) (see Table 2).

Hypothesis 2b posed that there was a difference in the duration of use between lonely and nonlonely. Hypothesis 2b was supported. A t test analysis showed a significant difference between lonely and nonlonely in the duration of use, $t(109) = 5.60$,

$p < .05$. Nonlonely ($M = 31.04$, $SD = 27.98$) tended to participate in the website for a longer period of time than were lonely ($M = 23.65$, $SD = 23.42$) (see Table 2).

For Hypothesis 2c, the findings showed a significant difference between internals and

externals in the duration of use, $t(104) = 7.50$, $p < .01$. Hypothesis 2c was supported. Internals ($M = 30.82$, $SD = 29.27$) were more likely to participate in the website for a longer period of time than were externals ($M = 22.36$, $SD = 21.23$) (see Table 2).

Table 2 Mean Differences in Internet Use between Groups

	Stigmatized Characteristics		Loneliness		Locus of Control	
	HIV/AIDS Infection	Non Infection	Lonely	Non Lonely	Internals	Externals
Amount of Internet Use (minutes/day)	69.52	80.87	65.84	82.41	87.35*	65.53*
Duration of Web Use (months)	21.63*	31.57*	23.65*	31.04*	30.82**	22.36**

Note. * $p < .05$. ** $p < .01$.

Research Question 1 asked if there were differences in Internet motives between stigmatized and non-stigmatized groups. A separate independent-samples t test indicated no significant differences between stigmatized and non-stigmatized groups in Internet motives including relaxation motive, $t(103) = 0.95$, $p > .05$, information-seeking motive, $t(103) = 1.96$, $p > .05$, and support reciprocity motive, $t(103) = 0.25$, $p > .05$.

For Research Question 2a, a multiple regression analysis was used to examine the contribution of loneliness, locus of control, Internet motives, and Internet use to predicting online support satisfaction.

The results showed significant predictive relationships among loneliness, locus of control, Internet motives, Internet use, and online support satisfaction. Loneliness, locus of control, Internet motives, and Internet use accounted for 19.7% of the variance in online support satisfaction, $R = .44$, $R^2 = .20$, $F(7, 98) = 3.43$, $p < .01$. Only loneliness ($\beta = -.43$, $p < .001$) was a significant negative predictor of online social support satisfaction (see Table 3). The finding indicated that nonlonely people were more likely to feel satisfied when using the Internet to seek support than were lonely people.

Table 3 Multiple Regression Analysis for Dispositions, Internet Motives, Internet Use Predicting Online Support Satisfaction

Dependent Variable	Predictors	B	SE B	β
$R^2 = .20^{**}$				
Online Support Satisfaction	Loneliness	-.66	.15	-.43***
	Locus of Control	-.24	.13	-.19
	Relaxation Motive	.08	.10	.09
	Information-Seeking Motive	.15	.13	.12
	Support Reciprocity Motive	-.03	.08	-.04
	Amount of Use	.00	.00	.05
		-.00	.00	-.12

Note. ** $p < .01$. *** $p < .001$.

Research Question 2b asked how loneliness, locus of control, Internet motives, and Internet use contributed to online support frequency (i.e., emotional, tangible, and informational support). Multiple regression analyses indicated significant relationships. Loneliness, locus of control, Internet motives, and Internet use were accounted for 21.6% of the variance in emotional support, $R = .46$, $R^2 = .22$, $F(7, 98) = 3.85$, $p < .01$, for 19.4% of the variance in tangible support, $R = .44$, $R^2 = .19$, $F(7, 98) = 3.36$, $p < .01$, and for 15.5% in informational support, $R = .39$, $R^2 = .16$, $F(7, 98) = 2.56$, $p < .05$. Support reciprocity motive ($\beta = .28$, $p < .01$) and the amount of use ($\beta = .23$, $p < .05$) positively predicted emotional support. Only support reciprocity motive ($\beta = .43$, $p < .001$) positively predicted tangible support. In addition, information-seeking motive positively predicted information support ($\beta = .25$, $p < .05$) (see Table 4).

In summary, the overall results of this study revealed that loneliness, locus of control, Internet

motives, and the amount and duration of use contributed to online support satisfaction and support frequency. When using the Internet for social support, nonlonely people were more likely to feel satisfied than were lonely people. Furthermore, people who used the Internet to gratify their support reciprocity purposes would feel that the website could provide both emotional and tangible support for them. Consistently, those who used the Internet for informational purposes would feel satisfied with a variety of information support that they received from the website.

In regard to differences in the amount and duration of use between groups, internals tended more to spend time providing and receiving support on the website than did externals. They also used the website for social support for a longer time (duration) than externals. In the same line, both non-stigmatized and nonlonely groups were more likely to use the website to seek different types of support for longer period of time than were stigmatized and lonely groups.

Table 4 Multiple Regression Analyses for Dispositions, Internet Motives, and Internet Use Predicting Online Support Frequency

Dependent Variable	Predictors	B	SE B	β
				$R^2 = .22^{**}$
Emotional Support	Loneliness	-.20	.18	-.11
	Locus of Control	.14	.15	.09
	Relaxation Motive	.12	.12	.11
	Information-Seeking Motive	.05	.16	.03
	Support Reciprocity Motive	.26	.10	.28**
	Amount of Use	.00	.00	.23*
				$R^2 = .19^{**}$
Tangible Support	Duration of Web Use	.00	.00	.03
	B	SE B	β	
	Loneliness	-.10	.17	-.06
	Locus of Control	-.11	.14	-.08
	Relaxation Motive	-.14	.11	-.14
	Information-Seeking Motive	.13	.15	.09
	Support Reciprocity Motive	.36	.09	.43***
				$R^2 = .16^{**}$
Informational Support	Amount of Use	.00	.00	.15
	Duration of Web Use	.00	.00	.15
	B	SE B	β	
	Loneliness	-.18	.17	-.11
	Locus of Control	.13	.14	.10
	Relaxation Motive	.08	.11	.08
	Information-Seeking Motive	.33	.14	.25*

Note. ** $p < .05$ ** $p < .01$. *** $p < .001$.

Conclusion and Discussion

This study served two purposes: (a) to clarify whether people with certain dispositions (i.e., stigmatized characteristics, loneliness, and locus of control) differed in Internet motives and amount and duration of Internet use and (b) to examine predictors of online support frequency and satisfaction.

Dispositions and Differences in Internet Use for Online Support

The findings imply that the dispositions contributed to differences in the duration of how long people have engaged in the website devoted to those living with HIV/AIDS rather than in the amount of time people spend on the site daily. Amount of Internet use per day was explained by locus of control only. Participants who internally believed in self-control over their lives spent more minutes each day on the website than those with external locus of control. Using the Internet for information seeking may serve as one way to control life with self-reliance to find information when in doubt. The literature indicates that Internet serves as a primary source for people dealing with chronic conditions (Coulson, 2005; Wright, 2002b). This study adds new knowledge with a further clarification on the question of who use Internet for online support. Besides those with chronic illness, people with the internal locus of control spend much time each day for online support.

On the other hand, the duration of the Internet use was varied by all three dispositions. Surprisingly, participants who were non-HIV/AIDS infection, less lonely, and internal locus of control had participated in the website for longer months. The authors hypothesized that those who live with HIV/AIDS tended to be lonely due to social alienation and use

Internet as an alternative venue for seeking and providing support more than people who are non-infection and nonlonely. The next question is “why do people without chronic illness and loneliness engage in the website devoted to HIV/AIDS for a longer time?”

Possibly, the explanation is that the more people help each other, the more they feel positive about themselves. These feelings build a strong sense of community and belongings that result in group adherence. Receiving and giving support yields mutual benefits to both ends as a receiver and a provider. Those in needs for help receive support while the providers attain self-fulfillment and self-esteem in return. According to past research, some of the goals when helping someone in traditional support settings were to obtain self-fulfillment (e.g., *to feel good, to exchange benefits*) and to maintain relationship (e.g., *to be a good friend, to help each other as we used to, to become closer*) (Dumrongchari & Pornsakulvanich, 2007, 2008). Also, Shaw and Gant (2002) found self-esteem increased after participants chatted through online support for several weeks. Ridings, Gefen, and Arinze (2006) noted that members of virtual communities have strong interpersonal relationships and share “*a sense of community that makes the group a true community and not simply a collection of individuals meeting online*” (p.329).

Adding on to the literature in Western cultures, this study shows that online community serves as a popular source of support not only for people coping with stigmatized characteristics and illness but also for general people. This may also explain why participants with and without stigmatized characteristics in this study did not differ in motives to engage in online support.

Predictors of Online Support Frequency and Satisfaction

In addition to dispositions as predictors of online support, this research also investigated how motives influenced people to use Internet for online support. The answers to the research questions of “how did Internet motives predict online support?” are: (a) to find information and (b) to exchange help. People tend to use Internet differently for online support, depending on their motives. However, relaxation is not the reason for people who intend to use Internet for gaining and giving help. Each motive is discussed in the next section.

The results from this study provide further evidence to clarify why people seek help online. The literature has studied types of online support and reported information and emotion as the primary support exchanged among members of virtual communities (Dahl, 2006; Mo & Coulson, 2008; Ridings et al., 2006). The current study yields an additional explanation on motives for each type of support in virtual setting. People vary in their motives for different types of online support. Those who needed information support were driven by information-seeking motive, whereas others who needed emotional and tangible support were motivated by support reciprocity motive.

When look closely at the items loaded together as the support reciprocity motive, they are similar to those items under “control,” one dimension of interpersonal motive from Papacharissi and Rubin’s (2000) Computer-Mediated Communication Motives Scale. Wright (2002a, 2002b) found interpersonal motive as the most important reason for using online support. The findings explore further that control is among the three dimensions (i.e., inclusion, affection, and control) that positively

predicts frequency of emotional and tangible support. The higher the support reciprocity motive is, the more frequent emotional and tangible support is provided. These findings imply that people are motivated to engage in online support to influence others by obtaining and giving help together. As discussed previously, support is mutually gained. Perhaps, helping others could be one way to fulfill oneself on the need for control.

Relaxation motive did not predict frequency of all types of online support. This motive reflects the use of Internet for passing time and enjoyment. Most participants in this study reported that they often read the comments on the websites (81.5%), but rarely posted (50.0%) or never posted (20.0%) the comments. Ridings et al. (2006) noted that lurkers differed from posters in their willingness to provide information and exchange social support. Participants who lurked the website may be driven by relaxation motive to observe others in a certain online community rather than to get or give help. Thus, relaxation motive is not a significant predictor of Internet use in social support context.

Among all predictors, loneliness negatively predicted online support satisfaction. The more people are lonely, the less they are satisfied with online support. Again, this result is unexpected. The authors anticipated that lonely people are more likely to use Internet as an alternative channel to seek online support and feel satisfied. Past research found that lonely people did not feel close to partners in online relationships (Pornsakulvanich, Haridakis, and Rubin, 2008). An explanation lies in that people with loneliness may not be willing to interact or build relationships with others through any communication channels, both online and offline. Thus, Internet may not serve as a functional

alternative to face-to-face support for people with certain characteristics such as stigmatized illness and social deficit as evidenced in this research.

Limitations and Future Directions

Several considerations need to be addressed when drawing conclusions from this study. First, the limitation is related to the sample of online support users. The online support community in this study is limited to people living with HIV/AIDS. Although participants include both HIV-infection and non-infection groups, the findings may be varied in other online communities. People with HIV/AIDS had coping strategies different from cancer patients and general people (Rokach, 2000). Future research may examine predictors of support frequency and satisfaction in a variety of online support groups. The two websites in this study have

long been established for many years. A sense of community and belonging as well as motivation and use may differ in new online communities.

Second, the limitation is pertinent to generalizability of the findings. Different from prior studies using Western populations, stigmatized characteristics do not serve as a leading reason for the Internet use. Whether this finding is applicable to other non-Western samples needs further investigation. In a collective culture such as Thai, adherence to group is valued. People, both with and without stigmatized identities, may similarly engage in any online support communities that fulfill the need of belonging. Future research with intercultural approach may increase the generalizability of the literature in online support overall.

References

AIDS & HIV Charity AVERT (2009a, August 6). Worldwide HIV & AIDS statistics commentary. Retrieved August 29, 2009, from <http://www.avert.org/worldstatinfo.htm>

AIDS & HIV Charity AVERT (2009b, November 12). HIV & AIDS in Thailand. Retrieved December 13, 2009, from <http://www.avert.org/aidsthai.htm>

Albrecht, T. L., & Adelman, M. B. (1984). Social support and life stress: New directions for communication research. *Human Communication Research*, 11, 3-32.

Albrecht, T. L., Burleson, B. R., & Goldsmith, D. (1994). Supportive communication. In M. L. Knapp & G. R. Miller (Eds.), *Handbook of interpersonal communication* (pp. 419-449). Thousand Oaks, CA: Sage.

Aspden, P., Katz, J. E., & Bemis, A. (2001). The Internet and health communication: A framework of experiences. In R. E. Rice & J. E. Katz (Eds.), *The Internet and health communication: Experiences and expectations* (pp. 107-119). Thousand Oaks, CA: Sage.

Barak, A., & Bloch, N. (2006). Factors related to perceived helpfulness in supporting highly distressed individuals through an online support chat. *Cyber Psychology & Behavior*, 9, 60-68.

Bargh, J. A., & McKenna, K. (2004). The Internet and social life. *Annual Review Psychology*, 55, 573-590.

Campbell, A. J., Cumming, S. R., & Hughes, I. (2006). Internet use by the socially fearful: Addiction or therapy? *Cyber Psychology & Behavior*, 9, 69-81.

Cohen, G. E., & Kerr, B. A. (1998). **Computer-mediated counseling: An empirical study of a new mental health treatment.** *Computers in Human Services*, 15(4), 13-26.

Cohen, S., & McKay, G. (1984). Social support, stress and the buffering hypothesis: A theoretical analysis. In A. Baum, S. E. Taylor, & J. E. Singer (Eds.), **Handbook of psychology and health** (Vol. 4, pp. 253-267). Hillsdale, NJ: Erlbaum.

Coulson, N. S. (2005). Receiving social support online: An analysis of a computer-mediated support group for individuals living with Irritable Bowel Syndrome. *Cyber Psychology & Behavior*, 6, 580-584.

Coulson, N. S., & Knibb, R. C. (2007). Coping with food allergy: Exploring the role of online support group. *Cyber Psychology & Behavior*, 10, 145-148.

Cutrona, C. E., & Russell, D. W. (1990). Type of social support and specific stress: Toward a theory of optimal matching. In B. R. Sarason, I. G. Sarason, & G. R. Pierce (Eds.), **Social support: An interactional view** (pp. 319-366). New York: John Wiley & Sons.

Cutrona, C., Suhr, J., & MacFarlane, R. (1990). Interpersonal transactions and the psychological sense of support. In S. Duck (Ed.) & R. Cohen-Silver, **Personal relationships and social support** (pp. 30-45). London: Sage.

Dahl, S. (2006). Peer support via the Internet: What kind of online support is sought by individuals with chronic medical conditions? *Journal of Medical Marketing*, 6, 268-275.

Davison, K. P., Pennebaker, J. W., & Dickerson, S. S. (2000). Who talks?: The social psychology of illness support groups. *American Psychologist*, 55, 205-217.

Dumrongsiri, N. (2009). An analysis of support goals: A perspective from support providers. *Journal of Communication Arts*, 2, 189-201.

Dumrongsiri, N., & Pornsakulvanich, V. (2007, May). **Primary and secondary goals in supportive communication.** Paper presented at the annual meeting of the International Communication Association, San Francisco, U.S.A.

George, D., & Mallory, P. (2003). **SPSS for Windows step by step: A simple guide and reference 11.0 update** (4th ed.). Boston: Pearson Education.

Goldsmith, D. J. (1994). The role of face work in supportive communication. In B.R. Burleson, T. L. Albrecht & I. G. Sarason (Eds.), **Communication of social support: Messages, interactions, relationships, and community** (pp. 29-49). Newbury Park, CA: Sage.

Goldsmith, D. J., & Fitch, K. (1997). The normative context of advice as social support. **Human Communication Research**, 23, 454-476.

HIV/AIDS patients' rights were violated. (2009, December 11). **Komchadluek**, p. 6.

House, J. (1981). **Work stress and social support**. Reading, MA: Addison-Wesley.

Katz, E., Blumler, J. G., & Gurevitch, M. (1974). Utilization of mass communication by the individual. In J. G. Blumler & E. Katz (Eds.), **The uses of mass communications: Current perspectives on gratifications research** (pp. 19-32). Beverly Hills, CA: Sage.

King, S. A., & Moretti, D. (1998). Internet therapy and self-help groups: The pros and cons. In J. Gackenbach (Ed.), **Psychology and the Internet: Intrapersonal, interpersonal, and transpersonal implications**. San Diego, CA: Academic Press.

Lieberman, M. A., & Snowden, L. R. (1993). Problems in assessing prevalence and membership characteristics of self-help group participants. **Journal of Applied Behavioral Science**, 29, 166-180.

McKenna, K. Y., & Bargh, J. A. (1999). Causes and consequences of social interaction on the Internet: A conceptual framework. **Media Psychology**, 1, 249-269.

Meier, A. (2000). Offering social support via the Internet: A case study of an online support group for social workers. **Journal of Technology in Human Services**, 17, 237-266.

Mo, P. K., & Coulson, N. S. (2008). Exploring the communication of social support within virtual communities: A content analysis of messages posted to an online HIV/AIDS support group. **Cyber Psychology & Behavior**, 11, 371-374.

Moha. (2006, April 28). The webboard is open. Message posted to news://pha.narak, archived at <http://pha.narak.com/topic.php?No=06969>

Mookaew. (2009, August 20). Re: Aids diary and Kaewdiary. Message posted to <http://www.bloggang.com/mainblog.php?id=kaewdiary>

Oravec, J. A. (2000). Online counseling and the Internet: Perspectives for mental health care supervision and education [Electronic version]. **Journal of Mental Health**, 9, 121-135.

Papacharissi, Z., & Rubin, A. M. (2000). Predictors of Internet use. **Journal of Broadcasting & Electronic Media**, 44, 175-196.

Pornsakulvanich, V. (2007). Internet motives and use among Thai youths. **University of Thai Chamber of Commerce Journal**, 27, 29-41.

Pornsakulvanich, V. (2008). Internet addiction, individual differences, and well-being among Thai students in a private university. **Association of Private Higher Education Institutions of Thailand Journal**, 18(2), 1-17

Pornsakulvanich, V., Haridakis, P., & Rubin, A. (2008). The influence of dispositions and Internet motivation on online communication satisfaction and relationship closeness. **Computers in Human Behavior**, **24**, 2292-2310.

Rice, R. E. (2001). The Internet and health communication: A framework of experiences. In R. E. Rice & J. E. Katz (Eds.), **The Internet and health communication: Experiences and expectations** (pp. 5-46). Thousand Oaks, CA: Sage.

Ridings, C., Gefen, D., & Arinze, B. (2006). Psychological barriers: Lurker and poster motivation and behavior in online communities. **Communications of the Association for Information Systems**, **18**, 329-354.

Rokach, A. (2000). Terminal illness and coping with loneliness. **Journal of Psychology**, **134**, 283-296.

Rotter, J. B. (1966). Generalized expectancies for internal and external control of reinforcement. **Psychological Monographs**, **80**, 55-79.

Rubin, A. M. (2002). The uses-and-gratifications perspective of media effects. In J. Bryant & D. Zillmann (Eds.), **Media effects: Advances in theory and research** (2nd ed., pp. 525-548). Mahwah, NJ: Erlbaum.

Rudy, R. R., Rosenfeld, L. B., Galassi, J. P., Parker, J., & Schanberg, R. (2001). Participants' perceptions of a peer-helper, telephone-based social support intervention for melanoma patients. **Health Communication**, **13**, 285-305.

Russell, D. (1996). UCLA loneliness scale (Version 3): Validity, and factor structure. **Journal of Personality Assessment**, **66**, 20-40.

Shaw, L. H., & Gant, L. M. (2002). In defense of the Internet: The relationship between Internet communication and depression, loneliness, self-esteem, and perceived social support. **Cyber Psychology & Behavior**, **5**, 157-171.

Sun, L. N., & Stewart, S. (2000). Psychological adjustment to cancer in a collective culture. **International Journal of Psychology**, **35**, 177-185.

Waldron, V. R., Lavitt, M., & Kelley, D. (2000). The nature and prevention of harm in technology-mediated self-help settings: Three exemplars. **Journal of Technology in Human Services**, **17**, 267-293.

Weinberg, N., Schmale, J. D., Uken, J., & Wessel, K. (1995). Computer-mediated support groups. **Social Work with Groups**, **17**, 43-54.

Winzelberg, A. (1997). The analysis of an electronic support group for individuals with eating disorders. **Computers in Human Behavior**, **13**, 393-407.

Wright, K. (2002a). Motives for communication within on-line support groups and antecedents for interpersonal use. **Communication Research Reports**, **19**(1), 89-98.

Wright, K. (2002b). Social support within an on-line cancer community: An assessment of emotional support, perceptions of advantages and disadvantages, and motives for using the community from a communication perspective. **Journal of Applied Communication Research**, **30**, 195-209.

Yanvaidsakol, K. (2001). The evaluation of comprehensive and continuum care for HIV positive and AIDS patients in Regions. Retrieved August 29, 2009, from <http://www.dpc11.ddc.moph.go.th/research/doc/19.pdf>

