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## Stigma, social support, and depression among people living with HIV in Thailand

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**Background.** People living with HIV/AIDS (PLWHA) in Thailand face tremendous challenges, including HIV-related stigma, lack of social support, and mental health issues such as depression. This study aims to examine complex relationships among demographics, HIV-related stigma, and social support and their impact on depression among PLWHA in Thailand. **Methods.** This study uses data collected in northern and northeastern Thailand. A total of 408 PLWHA were recruited and interviewed in 2007. HIV-related stigma was measured by two subscales: “Internalized Shame” and “Perceived Stigma.” Based on correlation analyses, hierarchical multiple regression models were used to examine the predictors of depression, social support, and HIV-related stigma, controlling for demographic characteristics. **Results.** Correlational analysis revealed that depression was significantly associated with both dimensions of stigma: internalized shame and perceived stigma. Self-reported emotional social support was negatively associated with depression. We found that internalized shame and emotional social support were significant predictors of depression after controlling for gender, age, income, and education. **Conclusions.** HIV-related stigma has a negative impact on psychological wellbeing of PLWHA in Thailand, and emotional social support remains a protective factor against depression. Intervention developers and clinicians working with PLWHA may find it useful to incorporate the association between stigma and depression into their programs and treatments, and to address social support as a protective effect for the mental health of PLWHA.

**Keywords:** depression; stigma; PLWHA; support; Thailand

### Introduction

People living with HIV/AIDS (PLWHA) face tremendous challenges, including their mental health (Bartlett & Gallant, 2001; Derlega & Barbee, 1998; Kalichman, 1995, 2000). For example, in the United States (US), rates of depression among PLWHA have been reported to be twice as high, compared to those of the general population (Atkinson & Grant, 1994; Lyketsos et al., 1996). PLWHA have been found to report higher levels of loneliness, compared to the general population (Vance, 2006). In Thailand, depression has been examined mainly among adolescents, college students, and older adults (e.g. Khanthawichai, 2001; Ross et al., 2005; Srisaeng, 2003). Only a few studies have examined depression among PLWHA in Thailand, especially among women (Bennetts et al., 1999; Ross & Srisaeng, 2005).

HIV-related stigma is prevalent worldwide. According to Goffman (1963), stigma is conceptualized by society on the basis of what constitutes “deviance”; a stigmatized individual is someone with “an undesirable difference.” Stigmatization associated with HIV is also a process of devaluation, often used to produce

social inequality and stress at the personal level (Hamra, Ross, Karuri, Orrs, & D’Agostino, 2005; Herek, 1999; Lee, Kochman, & Sikkema, 2002; Parker & Aggleton, 2003; Parker, Aggleton, Attawell, Pulerwitz, & Brown, 2002; Thomas et al., 2005). For example, perceived HIV stigma by PLWHA may discourage PLWHA from seeking care and may reduce adherence to antiretroviral (ARV) therapy (Foreman, Lyra, & Breinbauer, 2003; Malcolm et al., 1998; Vanable, Carey, Blair, & Littlewood, 2006; Ware, Wyatt, & Tugenberg, 2006). In Thailand, previous studies provided evidence that stigma could have a variety of negative effects on PLWHA, including delay in access to care (Busza, 2001) and isolation of PLWHA (Vanlandingham, Im-em, & Saengtienchai, 2005).

For many PLWHA, coping with HIV may be facilitated by their social support networks (McDowell & Serovich, 2007). Previous studies on the impact of social support among PLWHA suggested that perceived social support might act as a buffer to stress-related crises, such as depression (Johnson et al., 2001; Silver, Bauman, Camacho, & Hudis,

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2003) and may aid in psychological wellbeing (Hays, Chauncey, & Tobey, 1990; Serovich, Kimberly, Mosack, & Lewis, 2001). In addition, past studies in the US provided evidence that perceived social support was inversely associated with levels of perceived stigma (Galvan, Maxwell Davis, Banks, & Bing, 2008). Ross and Srisaeng (2005) found that higher social support reported by HIV-positive pregnant women in Thailand was associated with a lower level of perceived stigma.

The relationships among depression, stigma, and social support among PLWHA in Thailand have not been well established. With a sample of 408 PLWHA in northern and northeastern Thailand, we examined correlations among HIV stigma, social support, and depression as well as their relationships with demographic characteristics. In particular, we explored the ways in which PLWHA's perceived stigma and social support affect their level of depression. Empirical evidence about the relationships between these factors will provide better understanding of these challenges facing PLWHA in Thailand and scientific foundations for future intervention development.

## Methods

### *Participants and setting*

This study uses data from a randomized controlled family intervention trial in the Northern and Northeastern regions of Thailand. These data were collected in 2007 from four district hospitals in the two regions (two district hospitals per region). Initial screenings of PLWHA were conducted in the district hospitals and performed by healthcare workers and research staff specifically hired for the study. Once the PLWHA had been screened and had agreed to participate in the study, written informed consent was obtained. Following informed consent, a trained interviewer administered the assessment to the PLWHA using Computer Assisted Personal Interview (CAPI). During the interview, PLWHA were asked about their demographics, including age, gender, annual income, and educational status, and questions about their perceived stigma, social support, and depression. A total of 410 individuals voluntarily participated in the assessment. Refusal rate was approximately 5% across the four study sites. Because of multiple missing data points, 408 participants are included in this current study.

Approval of this study was obtained from Institutional Review Boards from the University of California at Los Angeles, and the Thailand Ministry of Public Health Ethical Review Committee for Research in Human Subjects. All participants received

300 Baht (equivalent to \$10) for their assessment participation.

### *Measures*

We used multi-item scales to measure depression, stigma, and social support (Table 1). *Depression* was assessed with a 15-item depression screening test that was developed and used previously in Thailand (Thai Department of Mental Health, 2004). These questions asked about problems that had bothered participants in the past week (e.g. feeling blue most of the time), with response categories from zero (not at all) to three (usually (5–7 days a week)). A summative composite scale was developed, with the range of 0–45 and an excellent Cronbach's alpha of 0.91.

HIV-related stigma measures were adapted from scales that were developed, based on the work of Herek and Capitanio (1993), and validated by the Thai investigators in the Nakhon Ratchasima Province, Thailand (Apinundecha, Laohasiriwong, Cameron, & Lim, 2007). After conducting exploratory factor analysis, we identified two factors that were conceptually identified as *Perceived Stigma* and *Internalized Shame*. *Perceived stigma* was created based on eight items, and *Internalized Shame* was measured based on nine items, as shown in Table 1. Response categories ranged from one (strongly disagree) to five (strongly agree). Summative composite scores were created for *perceived stigma* (range = 8–40) and *internalized shame* (range = 9–45), with Cronbach's alphas of 0.75 and 0.81, respectively.

*Emotional Social Support* was constructed as a composite variable based on the two subscales (emotional/informational support and affectionate support) in the Medical Outcomes Study Social Support Scale (Sherbourne & Stewart, 1991). The social support scale included both emotional/informational support, measured by eight items, and affectionate support including three items. Responses to individual items ranged from one (none of the time) to five (all of the time). We combined the two subscales because they were highly correlated to yield a composite scale with a satisfactory internal consistency ( $\alpha = 0.86$ ). This summative composite score ranged from 11 to 55.

### *Data analysis*

All analyses were performed using SAS statistical software version 9.1 (SAS Institute, Inc., Cary, NC). First, descriptive statistics were used to describe PLWHA's demographics, depression, internalized shame, perceived stigma, and emotional social support. Second, Pearson correlation coefficients were

Table 1. Assessment questions and scales used in this study.

Depression	
1.	Feeling blue most time of the day
2.	Feeling of suffering until crying
3.	Feeling of hopeless and dying
4.	Unhappy and no fun on favorite activities
5.	Feeling of disappointing and blaming yourself
6.	Loss of self-confidence
7.	Feeling no interest in things
8.	Feelings of worthlessness
9.	Your mind going blank
10.	Trouble remembering things
11.	Thinking slowly
12.	Doing things slowly
13.	Exhausted and have no energy
14.	Poor appetite and eating less
15.	Trouble falling asleep
Emotional social support	
1.	Someone you can count on to listen to you when you need to talk
2.	Someone to give you information to help you understand a situation
3.	Someone to give you good advice about a crisis
4.	Someone to confide in or talk to about yourself or your problems
5.	Someone whose advice you really want
6.	Someone to share your most private worries and fears with
7.	Someone to turn to for suggestions about how to deal with a personal problem
8.	Someone who understands your problems
9.	Someone who shows you love and affection
10.	Someone to love and make you feel wanted
11.	Someone who hugs you
Perceived stigma	
1.	I am accused by others for being the spreader of AIDS in the community
2.	People gossip about my HIV status
3.	People look down on me
4.	The society isolates me
5.	I feel discriminated by health workers
6.	I feel my life in this society is lonely
7.	I worry about how other kids treat my children in school as a result of my HIV
8.	I worry about how others will treat my family members as a result of my HIV
Internalized shame	
1.	I am punished by evil
2.	My life is tainted
3.	I am angry with myself for getting HIV
4.	I am a disgrace to society
5.	My life is filled with shame

Table 1 (Continued)

6.	I feel guilty for being the source of disruption in the family
7.	I feel my life is worthless
8.	I feel my reputation is lost
9.	If possible I want to conceal my HIV status for life

calculated to examine the relationship between depression, internalized shame, perceived stigma, and emotional social support, as well as demographic variables such as age, gender, income, and education. Third, a series of multiple regression analyses were conducted to examine associations among PLWHA's perceived stigma, internalized shame, emotional social support, and depression, simultaneously controlling for the effects of participants' age, gender, income, and education. Regression coefficients estimation and their significant levels are reported.

## Results

Table 2 shows the characteristics of PLWHA in the study. Age ranged from 23 to 64 years. The mean age of the participants was 37.7 years (standard deviation (SD) = 6.6). A majority of the sample, 72.5%, was female. Most participants (81.4%) received less than high school education. The average individual annual income was 27,194 Baht per year (equivalent to \$850). The mean scores of *Perceived Stigma*, *Internalized Shame*, *Emotional Social Support*, and *Depression* were 21.5 (SD = 4.9), 24.3 (SD = 6.2), 39.3 (SD = 8.3), and 12.9 (SD = 8.4), respectively.

The correlation coefficients among demographic characteristics, perceived stigma, internalized shame,

Table 2. Characteristics of study participants (N=408).

	Count	Percentage (%)
Male	112	27.5
Education		
Less than high school	332	81.4
Some high school or more	76	18.6
	Mean	Standard deviation (SD)
Age	37.7	6.6
Individual annual income in Baht	27,194	36,042
Perceived stigma	21.5	4.9
Internalized shame	24.3	6.2
Emotional social support	39.3	8.3
Depression	12.9	8.4

emotional social support, and depression are shown in Table 3. Significant negative correlations were observed among emotional social support and internalized shame ( $r = -0.16$ ,  $p = 0.001$ ) and perceived stigma ( $r = -0.15$ ,  $p < 0.05$ ). Not surprisingly, PLWHA's perceived stigma and their reported levels of internalized shame were also positively correlated ( $r = 0.65$ ,  $p < 0.001$ ). We found that levels of depression was significantly correlated with levels of internalized shame ( $r = 0.51$ ,  $p < 0.001$ ), perceived stigma ( $r = 0.40$ ,  $p < 0.001$ ), and emotional social support ( $r = -0.22$ ,  $p < 0.001$ ).

Significant correlations were also found among PLWHA's demographic characteristics and perceived stigma, internalized shame, emotional social support, and depression. Being female was also significantly correlated with their perceived stigma related to HIV/AIDS ( $r = 0.13$ ,  $p = 0.007$ ). Age was correlated with levels of internalized shame ( $r = 0.10$ ,  $p = 0.041$ ), and annual income was correlated with levels of perceived stigma ( $r = -0.15$ ,  $p = 0.003$ ) and emotional social support ( $r = 0.10$ ,  $p = 0.05$ ). Education was significantly correlated with levels of emotional social support ( $r = 0.10$ ,  $p = 0.05$ ). Depression was also significantly correlated with gender (being female) ( $r = 0.13$ ,  $p = 0.007$ ).

Table 4 shows the multiple regression models examining factors associated with perceived stigma, internalized shame, emotional social support, and depression. Controlling for selected independent variables, higher levels of internalized shame were associated with higher levels of perceived stigma (standardized beta ( $\beta$ ) = 0.63,  $p < 0.0001$ ). Lower levels of emotional social support were associated with higher levels of perceived stigma ( $\beta = -0.09$ ,  $p = 0.02$ ). In addition, lower income was significantly associated with higher levels of perceived stigma ( $\beta = -0.09$ ,  $p = 0.02$ ). The findings from regression on internalized shame, controlling for all selected independent variables, revealed that higher levels of perceived stigma were significantly associated with higher levels of internalized shame ( $\beta = 0.65$ ,

$p < 0.0001$ ). Similarly, higher levels of perceived stigma were significantly associated with lower levels of emotional social support ( $\beta = -0.14$ ,  $p = 0.028$ ), controlling for selected independent variables.

The final regression model examining the predictors of depression revealed that higher levels of internalized shame were significantly associated with higher levels of depression ( $\beta = 0.43$ ,  $p < 0.0001$ ). In addition, lower levels of emotional social support were significantly associated with higher levels of depression ( $\beta = -0.14$ ,  $p = 0.001$ ). Controlling for all other variables, younger participants were more depressed than their older counterparts ( $\beta = -0.11$ ,  $p = 0.013$ ).

## Discussion

HIV-related stigma, lack of social support, and mental health issues such as depression are some of the many challenges that PLWHA are facing around the world, including Thailand. Instead of examining these issues independently, this study explored complex relationships among them. We found that internalized shame reported by PLWHA was a significant predictor of depression, and PLWHA's perceived stigma was significantly related to their internalized shame, although its effect on depression was not independently significant. This finding implies that there may be an indirect effect of perceived stigma on depression that is mediated through internalized shame. Our findings on the significant relationships between internalized shame and depression are consistent with previous studies (Epstein, 2001; Scheff, 2001; Wong & Cook, 1992; Wright, O'Leary, Balkin, 1989).

To explore social components in depression, Scheff (2001) called for a complex multidisciplinary approach to understand the phenomenon of depression. According to his conceptual framework, in addition to biology and individual psychology, alienation, including shame and lack of community, may be an immediate cause of depression (Scheff, 2001).

Table 3. Correlation coefficients and significance levels among selected variables ( $N = 408$ ).

	1	2	3	4	5	6	7	8
1. Male								
2. Age	-0.16*							
3. Individual annual income	-0.14*	-0.01						
4. Some high school or more	-0.16*	-0.03	0.21**					
5. Perceived stigma	0.13*	0.05	-0.15*	-0.08				
6. Internalized shame	0.07	0.10*	-0.05	-0.02	0.65**			
7. Emotional social support	0.24	-0.07	0.10*	0.10*	-0.19**	-0.15*		
8. Depression	0.13*	-0.06	-0.07	-0.04	0.40**	0.51**	-0.22**	

\* $p < 0.05$ ; \*\* $p < 0.001$ .

Table 4. Multiple regression on perceived stigma, internalized shame, emotional social support, and depression (N = 408).

	Perceived stigma		Internalized shame		Emotional social support		Depression	
	$\beta$	p-Value	$\beta$	p-Value	$\beta$	p-Value	$\beta$	p-Value
Age	-0.01	0.721	0.07	0.064	-0.04	0.416	-0.11*	0.013
Male	0.07	0.074	0.01	0.834	0.05	0.282	0.08	0.078
Individual annual income	-0.09*	0.020	0.04	0.287	0.05	0.307	-0.02	0.730
Some high school or more (ref. less than high school)	-0.03	0.391	0.03	0.410	0.06	0.210	0.01	0.893
Internalized shame	0.63*	<0.0001	-	-	-0.08	0.203	0.43*	<0.0001
Perceived stigma	-	-	0.65*	<0.0001	-0.14*	0.028	0.09	0.122
Emotional social support	-0.09*	0.020	-0.03	0.463	-	-	-0.14*	0.001
R <sup>2</sup>	0.45		0.43		0.06		0.30	

Note:  $\beta$  = Standardized beta coefficient.

\*p < 0.05.

Our study provides further evidence to support this hypothesis by demonstrating the significant impact of both internalized shame and social support on depression. The results of this study have implications for future intervention and treatment programs for PLWHA. For example, mental stressors, such as depression, have been linked to more rapid progression to AIDS among PLWHA (Ross et al., 2005). Our findings on HIV-related stigma underscore the complex relationship between internalized shame and perceived stigma, and their relationship with depression. To address mental health problems associated with HIV/AIDS, researchers, program developers, and clinicians should also pay close attention to helping PLWHA to strengthen their self-esteem and their sense of belonging to a community, including the connections with other significant persons in their lives, while dealing with HIV-related stigma and discrimination in the community. Both social and psychological components should be integrated and incorporated into the programs.

Our findings on the significant association between perceived stigma and emotional social support are consistent with previous studies in Thailand, providing evidence that PLWHA who perceived negative community reaction were significantly more likely to report a decline in their social support over time (Vanlandingham et al., 2005). The study also revealed that lower emotional social support was significantly associated with higher depression. Again, this may imply that the impact of perceived stigma in community on PLWHA's depression can be indirectly mediated through the lack of social support. This finding has significant implications of the mental health of PLWHA. Social isolation and stigma can prevent PLWHA from seeking and receiving social support, which can lead to their depression; depression and other mental health challenges may, in turn, create more isolation and deter their treatment seeking, including their ARV treatment adherence, and lead to their deterioration of health.

The findings from our study confirm an association between HIV-related stigma and depression. In Thailand, there is still a considerable stigma associated with mental illness. People living with HIV and depression have to cope with the double stigma of HIV and mental illness. Despite the epidemiological data on the low prevalence of depression among PLWHA, depression is prevalent among PLWHA and is under-diagnosed (Fulk, Kane, Phillips, Bopp, & Hand, 2004). This may result from the fact that may be the symptoms of depression are also symptoms of HIV itself. Moreover, stigma associated with both HIV and depression could also contribute to the

gap. This study serves to remind medical and social service providers that stigma remains a barrier to adjustment, especially for PLWHA and depression.

There are some limitations to this study. First, we conducted data analyses based on cross-sectional data; therefore, causal interpretations of the results cannot be established. Second, the reliance on self-reported measures may be susceptible to information bias; for instance, those individuals who reported high levels of stigma were simply more likely to report psychological stress. Third, one major caveat around disclosure is the eligibility criteria for this study. There had to be at least one other family member who knew about the HIV status of the PLWHA in order to be eligible for recruitment. For example, patient registry data from the study sites in the Northeast indicate that 30% of PLWHA were ineligible for recruitment. The relationship between HIV-related stigma and depression among those who have not disclosed their status may potentially be even greater than those who participated in our study. Therefore, the selection criteria limit the generalization of the study findings to those without children and to those whose HIV status were not disclosed to their family members at the time the study was conducted.

Despite the limitations, our findings suggested robust associations between HIV-related stigma and depression, as well as the protective effect of emotional social support on depression. We considered several additional factors to ensure the robustness of our findings. For example, we conducted a series of sensitivity analysis and included additional variables (e.g. number of years being diagnosed with HIV, whether the patient is on ARV therapy) that may be related to depression. After controlling for these variables, the significant association between HIV-related stigma, emotional social support, and depression remained in the final model.

In conclusion, the linkage between HIV-related stigma and depression is not a simple, linear relationship; rather the negative impact of social stigma on PLWHA's perceptions of themselves and social support around them may contribute to their mental health challenges such as depression. To improve psychological wellbeing of PLWHA in Thailand and around the world, we should address both HIV-related stigma as a risk factor and social support as a protective factor and incorporate both components in the program development.

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### References

- Apinundecha, C., Laohasirivong, W., Cameron, M.P., & Lim, S. (2007). A community participation intervention to reduce HIV/AIDS stigma, Nakhon Ratchasima province, northeast Thailand. *AIDS Care, 19*, 1157–1165.
- Atkinson, J.H., & Grant, I. (1994). Natural history of neuropsychiatric manifestations of HIV disease. *Psychiatric Clinics of North America, 17*, 17–33.
- Bartlett, J.G., & Gallant, J.E. (2001). *Medical management of HIV infection (2000–2001)*. Baltimore, MD: Johns Hopkins University Press, Division of Infectious Diseases.
- Bennetts, A., Shaffer, N., Manopaiboon, C., Chaiyakul, P., Siriwasin, W., Mock, P., et al. (1999). Determinants of depression and HIV-related worry among HIV-positive women who have recently given birth, Bangkok, Thailand. *Social Science & Medicine, 49*, 737–749.
- Busra, J.R. (2001). Promoting the positive: Resonances to stigma and discrimination in Southeast Asia. *AIDS Care, 13*, 445–456.
- Derlega, V.J., & Barbee, A.P. (Eds.). (1998). *HIV and social interaction*. Thousand Oaks, CA: Sage.
- Epstein, R.S. (2001). The role of shame in understanding and treating depression. *Psychiatry, 64*, 240–241.
- Foreman, M., Lyra, P., & Breinbauer, C. (2003). *Understanding and responding to HIV/AIDS-related stigma and discrimination in the health sector*. Washington, DC: Pan American Health Organization.
- Fulk, L.J., Kane, B.E., Phillips, K.D., Bopp, C.M., & Hand, G.A. (2004). Depression in HIV-infected patients: Allopathic, complementary, and alternative treatments. *Journal of Psychosomatic Research, 57*, 339–351.
- Galvan, F.H., Maxwell Davis, E., Banks, D., & Bing, E.G. (2008). HIV stigma and social support among African Americans. *AIDS Patient Care STDS, 22*, 423–436.
- Goffman, E. (1963). *Stigma*. Englewood Cliffs, NJ: Prentice-Hall.
- Hamra, M., Ross, M.W., Karuri, K., Orrs, M., & D'Agostino, A. (2005). The relationship between expressed HIV/AIDS-related stigma and beliefs and knowledge about care and support of people living with AIDS in families caring for HIV-infected children in Kenya. *AIDS Care, 17*, 911–922.
- Hays, R.B., Chauncey, S., & Tobey, L.A. (1990). The social support networks of gay men with AIDS. *Journal of Community Psychology, 18*, 374–385.
- Herek, G.M. (1999). AIDS and stigma. *American Behavioral Scientist, 42*, 1106–1116.



- Herek, G.M., & Capitano, J.P. (1993). Public reactions to AIDS in the United States: A second date of stigma. *American Journal of Public Health, 83*, 574–577.
- Johnson, J.G., Alloy, L.B., Panzarella, C., Metalsky, G.I., Rabkin, J.G., Williams, J.B.W., et al. (2001). Hopelessness as a mediator of the association between social support and depressive symptoms: Findings of a study of men with HIV. *Journal of Counseling and Clinical Psychology, 69*, 1056–1060.
- Kalichman, S.C. (1995). *Understanding AIDS: A guide for mental health professionals*. Washington, DC: American Psychological Association.
- Kalichman, S.C. (2000). Couples with HIV/AIDS. In K.B. Schmaling & T. Goldman Sher (Eds.), *The psychology of couples and illness: Theory, research, and practice* (pp. 171–190). Washington, DC: American Psychological Association.
- Khanhawichai, Y. (2001). *Predictors of depression among elderly with chronic obstructive pulmonary disease in Chonburi province*. Master's thesis, Faculty of Nursing, Burapha University, Thailand.
- Lee, R.S., Kochman, A., & Sikkema, K.J. (2002). Internalized stigma among people living with HIV/AIDS. *AIDS and Behavior, 6*, 309–319.
- Lyketsos, C.G., Hoover, D.R., Guccione, M., Dew, M.A., Wesch, J.E., Bing, E.G., et al. (1996). Changes in depressive symptoms as AIDS develops. The multicenter AIDS cohort study. *American Journal of Psychiatry, 153*, 1430–1437.
- Malcolm, A., Aggleton, P., Bronfman, M., Galvao, J., Mane, P., & Verrall, J. (1998). HIV-related stigmatization and discrimination: Its forms and contexts. *Critical Public Health, 8*, 347–370.
- McDowell, T.L., & Serovich, J.M. (2007). The effect of perceived and actual social support on the mental health of HIV-positive persons. *AIDS Care, 19*, 1223–1229.
- Parker, R., & Aggleton, P. (2003). HIV and AIDS-related stigma and discrimination: A conceptual framework and implications for action. *Social Science & Medicine, 57*, 13–24.
- Parker, R., Aggleton, P., Attawell, K., Pulerwitz, J., & Brown, L. (2002). *HIV/AIDS-related stigma and discrimination: A conceptual framework and an agenda for action*. Washington, DC: Horizons Program.
- Ross, R., & Srisaeng, P. (2005). *Depression and its correlates among HIV-positive pregnant women in Thailand*. A paper presented on November 12, 2006 at the Sigma Theta Tau International: 38th Biennial Convention, Indianapolis, Indiana.
- Ross, R., Zeller, R., Srisaeng, P., Yimmee, S., Somchid, S., & Sawatphanit, W. (2005). Depression, stress, emotional support, and self-esteem among baccalaureate nursing students in Thailand. *International Journal of Nursing Education Scholarship, 2*, Article 25. Available: <http://www.bepress.com/ijnes/vol2/iss1/art25>.
- Scheff, T.J. (2001). Shame and community: Social components in depression. *Psychiatry, 64*, 212–224.
- Serovich, J.M., Kimberly, J.A., Mosack, K.E., & Lewis, T.L. (2001). The role of family and friend support in reducing emotional distress among HIV-positive women. *AIDS Care, 13*, 335–341.
- Sherbourne, C.D., & Stewart, A.L. (1991). The MOS social support survey. *Social Science Medicine, 32*, 705–714.
- Silver, E.J., Bauman, L.J., Camacho, S., & Hudis, J. (2003). Factors associated with psychological distress in urban mothers with late-stage HIV/AIDS. *AIDS and Behavior, 7*, 421–431.
- Srisaeng, P. (2003). *Self-esteem, stressful life events, social support, and postpartum depression in adolescent mothers in Thailand*. Unpublished doctoral dissertation, Frances Payne Bolton School of Nursing, Case Western Reserve University, Cleveland, OH, USA.
- Thai Department of Mental Health. (2004). *Depression screening test*. Thailand: Ministry of Public Health. Retrieved May 12, 2008, from <http://www.dmh.go.th/test/depress/asheet.asp?qid=1>.
- Thomas, B.E., Rehman, F., Suryanarayanan, D., Ajosephine, K., Dilip, M., Dorairaj, V.S., et al. (2005). How stigmatizing is stigma in the life of people living with HIV: A study on HIV positive individuals from Chennai, South India. *AIDS Care, 17*, 795–801.
- Vanable, P.A., Carey, M.P., Blair, D.C., & Littlewood, R.A. (2006). Impact of HIV-related stigma on health behaviors and psychological adjustment among HIV-positive men and women. *AIDS and Behavior, 10*, 473–482.
- Vance, D.E. (2006). Self-related emotional health in adults with and without HIV. *Psychological Reports, 98*, 106–108.
- Vanlandingham, M., Im-em, W., & Saengtienchai, C. (2005). Community reactions to persons with HIV/AIDS and their parents: An analysis of recent evidence from Thailand. *Journal of Health and Social Behavior, 46*, 392–410.
- Ware, N.C., Wyatt, M.A., & Tugenberg, T. (2006). Social relationships, stigma and adherence to antiretroviral therapy for HIV/AIDS. *AIDS Care, 18*, 904–910.
- Wong, M.R., & Cook, D. (1992). Shame and its contribution to PTSD. *Journal of Traumatic Stress, 5*, 557–562.
- Wright, F., O'Leary, J., & Balkin, J. (1989). Shame, guilt, narcissism and depression: Correlates and sex differences. *Psychoanalytic Psychology, 6*, 217–230.