

Social Support, Spiritual Well-Being, and Quality of Life Among MSM and Transgender Women Living with HIV in Rural Thailand

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ABSTRACT

Background: HIV/AIDS continues to be a significant public health challenge in Thailand, affecting not only the physical health but also the overall quality of life (QOL) of those living with the virus. Understanding the factors influencing QOL is crucial for developing effective interventions and support systems. This study examined the QOL among men who have sex with men (MSM) and transgender women (TGW) living with HIV in Thailand and identify factors that are associated with their QOL.

Methods: A cross-sectional quantitative design with secondary analysis was employed. Standardized measures were used to assess social support, spiritual well-being (SWB), and QOL. Data were analyzed using descriptive statistics and Pearson's correlation coefficient.

Results: Social support was found to be at a moderate level, while SWB was high. Overall QOL was moderate. QOL scores were significantly higher among those with a bachelor's degree, those earning 20,001-30,000 baht monthly, and those who had disclosed their HIV status ($p<0.05$). Significant positive correlations were observed between QOL and both social support ($r=0.459$, $p<0.05$) and SWB ($r=0.501$, $p<0.05$).

Conclusion: The findings revealed that moderate level of overall social support and high level of overall SWB significantly influence QOL among MSM and TGW. These findings provide a foundation for developing targeted nursing interventions that focus on social support and SWB to improve QOL among MSM and TGW.

Keywords: HIV, Men who have sex with men, Quality of life, Thailand, Transgender women

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INTRODUCTION

In Thailand, Human immunodeficiency virus and acquired immune deficiency syndrome (HIV/AIDS) remains a significant cause of mortality among adult women. As the HIV epidemic enters its third decade, new outbreaks continue to emerge. Recently, a rapid surge in HIV infections has been observed among Thai men who have sex with men (MSM) and transgender women (TGW).¹ These groups are particularly susceptible to HIV due to their engagement in high-risk sexual activities.² The impact of HIV/AIDS is especially severe on impoverished MSM and TGW, who often lack adequate social, financial, and medical resources to manage their condition effectively. Consequently, these individuals living with HIV tend to experience a lower quality of life (QOL) compared to other HIV-positive populations, such as heterosexuals.³

The landscape of HIV care has transformed dramatically with medical advances extending lifespans of people living with HIV (PLWH). Focus has shifted from survival to QOL life, bringing to crucial factors shaping their experiences. A fulfilling life with HIV now intertwines social support, SWB, and effective coping mechanisms.⁴ QOL emerges as a central concept, emphasizing meaningful existence beyond longevity. Social support, and SWB are now integral to HIV care, recognizing the interplay between physical health, spirituality, and social connection. This holistic approach promises comprehensive care addressing the whole person, not just the HIV.⁵

While the connection between spirituality and QOL is intuitively compelling, research exploring this relationship among MSM and TGW in Thailand remains scarce. This gap stands in contrast to the more extensive body of work conducted in Western countries. Studies from Western contexts have provided valuable insights into this relationship. Setareh et al.⁶ found that SWB was significantly associated with better physical well-being, and psychological health dimension among PLWH. This builds on earlier work by Doolittle et al⁷, who reported that spirituality and religiousness were positively correlated to various dimensions of health outcomes, including QOL, in PLWH, while those with negative views of spirituality had poorer outcomes.

Nevertheless, the cultural and religious landscape of Thailand differs significantly from Western contexts, potentially influencing how spirituality interacts with QOL for Thai PLWH. Recent work by Bunjounmanee et al⁸ on the QOL of Thai PLWH indicated that age, socioeconomic status, family support, and adherence to treatment are key factors influencing the QOL of patients but did not deeply explore the spiritual dimension. Given these considerations, there is a pressing need for more research specifically focused on Thai MSM and TGW PLWH. Such studies would help to document and understand the nuances of how SWB and QOL intersect within the Thai context, potentially

informing culturally appropriate interventions and support strategies.

For several decades, social support has been a focal point in health research due to its potential to significantly influence health outcomes across various contexts. The impact of social support extends beyond direct health benefits, with growing interest in its role as a protective resource during stressful periods. The relationship between social support and QOL in PLWH has been well-established through studies.^{9,10,11}

Recent research has also begun to explore the multifaceted nature of social support in the context of HIV. Furthermore, Kabore et al¹² emphasized the role of community-based support systems in improving QOL outcomes, particularly in resource-limited settings. These findings underscore the critical importance of social support interventions in comprehensive HIV care, suggesting that strategies to enhance social support networks could significantly improve QOL for PLWH. This study was guided by the Wilson and Cleary model¹³, the conventional and widely cited conceptual framework of QOL research. This model emphasizes the relationships between various health domains by outlining a linear sequence of causal links along a pathway. It starts at the bio-physiological level and progresses outward to encompass the subjective experience and the individual's interactions as a social being.

Gaps in the current research literature exist regarding the relationships among social support, SWB, and QOL among Thai MSM and TGW living with HIV. The purpose of this study was to examine the QOL among Thai MSM and TGW living with HIV and identify factors (demographic variables, social support, and SWB) that are associated with their QOL. The primary objective of this study is to develop and implement effective nursing interventions tailored to the cultural needs of MSM and TGW living with HIV to help them to attain higher levels of QOL.

METHODOLOGY

Study design: The parent study was conducted in two hospitals in rural area of Thailand that aimed to explore self-management and associated factors among PLWH. Then, this sub-study measured other variables namely QOL of MSM and TGW, social support, and SWB. In response to the main purposes of the parent study, this sub-study was designed and embedded within the parent study. This study employed a cross-sectional quantitative design with secondary analysis.

Participants: Participants in the parent study were recruited in a manner that protected the rights and privacy of interested persons. They were recruited from two HIV clinics housed in two hospitals (Derm-bangnangbuach hospital and Uthong hospital) of Suphanburi province, Thailand.

These two clinics provide care, counseling, and support services to eligible PLWH in their respective areas. The inclusion criteria were as follows: (1) being Thai MSM and TGW living with HIV; (2) age 18 years or older; (3) being a social media user; (4) having provided informed consent; and (5) volunteering to participate in the study. The exclusion criteria were as follows: (1) inability to complete the survey due to health problems (e.g., mental illness), and (2) inability to provide written informed consent. A simple random sampling technique was employed to recruit participants. The parent study employed G*Power 3.1.9.7 software¹⁴ to determine the appropriate sample size. The software calculations, using input parameters of $\alpha=0.05$, $\text{power}=0.80$, and effect size=0.20, yielded a recommended sample size of 191 participants. Final sample size for this study included 204 participants.

Measures: The first part of a set of questionnaires collected the demographic information of the participants: sexual orientation (MSM, and TGW), age, religion, education, occupation, living status, monthly income, and duration on Antiretroviral Therapy (ART).

The Personal Resource Questionnaire (PRQ-85 part II) was employed to evaluate social support. Originally formulated in English by Brandt and Weinert,¹⁵ this instrument examines five fundamental aspects: (a) perceived self-worth; (b) sense of belonging to a social group; (c) presence of intimate relationships; (d) chances to provide care for others; and (e) access to various forms of assistance, including informational, emotional, and material support.¹⁵ This self-administered measure consists of 25 items, each rated on a 5-point Likert scale ranging from 1 (strong disagreement) to 5 (strong agreement). The cumulative score, obtained by adding individual item ratings, spans from 25 to 125. Score interpretations are as follows: a low level of social support (score<96.1), a moderate level of social support (96.1-116.3), and a high level of social support (score>116.3). The Thai-translated version of the scale demonstrated validated content, convergent, and divergent validity. Within this instrument, greater scores indicate greater levels of perceived social support. The PRQ-85 part II has demonstrated good reliability and validity for estimating the level of social support in Thai PLWHA with a Cronbach's alpha coefficient of 0.86 in the current study.

The assessment of spiritual well-being was conducted using the JAREL Spiritual Well-Being (JAREL-SWB) scale. This instrument, initially developed in English by JAREL,¹⁶ serves as a comprehensive measure of SWB. Comprising 21 items, the scale encompasses four domains: relationship, other/nature, self, and time. Participants respond to each item on a 6-point Likert scale, ranging from 1 (strongly disagree) to 6 (strongly agree). The scale yields a total score between 21 and 126, with higher scores indicating greater spiritual well-being. In addition, the JAREL-SWB scale allows for the evaluation of three

specific domains: faith/belief dimension, life/self-responsibility, and life satisfaction/self-actualization. The questionnaire measures three different levels of SWB: low (0-50), medium (51-84), and high (85-126). Evidence for the validity and reliability of this scale was provided by Hungelmann et al.¹⁶ The study employed a Thai-translated version of the scale, which had previously demonstrated content validity as well as convergent and divergent validity. In the current study, the scale exhibited satisfactory internal consistency, with an overall Cronbach's alpha of 0.86.

The Thai World Health Organization Quality of Life: Brief Version (WHOQOL-BREF) was employed to evaluate QOL. This instrument consists of 26 items encompassing four domains: physical, psychological, social relationships, and environment. Responses were recorded on a 5-point Likert scale, with values ranging from 1 to 5. Overall QOL was categorized into three levels: poor (26-60), moderate (61-95), and high (96-130). Domain-specific classifications were established as follows: physical health - poor (7-16), moderate (17-26), good (27-35); psychological health - poor (6-14), moderate (15-22), good (23-30); social relationships - poor (3-7), moderate (8-11), good (12-15); and environmental health - poor (8-18), moderate (19-29), good (30-40). The process of adapting the WHOQOL-BREF instrument for Thai populations was documented by Mahatnirunkul and colleagues.¹⁷ The Thai version exhibited strong psychometric properties, with Cronbach's alpha coefficients surpassing 0.78 for all domains and the overall scale, demonstrating adequate reliability and validity.¹⁷

Data collection: Original data were collected as part of a larger cross-sectional survey study using a set of structured questionnaires. Data collection took place between January and June 2022. The research team utilized a Google survey platform to develop a questionnaire, which was disseminated through the Line social networking application. MSM and TGW living with HIV from the two participating clinics are members of a Line group dedicated to health-related discussions with peers, healthcare professionals, and nursing staff from the HIV clinics. Consequently, all potential participants had an equal opportunity to be included in the study sample.

Ethical consideration: The Institutional Review Board of Boromarajonani College of Nursing, Suphanburi, Thailand, granted approval for the parent study and all associated procedures (approval number: EC-045/2563). At the outset of the survey, participants were presented with a brief overview of the study methodology. All individuals involved in this study provided electronic informed consent, ensuring their anonymous participation in the investigation. When managing electronic consent and anonymity in Google survey research for participants with limited digital literacy, the researchers implemented a comprehensive yet accessible approach.

The consent process utilized simple checkbox confirmations rather than complex signatures supported by multilingual audio/video explanations and available assistance. Anonymity was maintained by disabling email and IP address collection using anonymous participant codes and storing identification keys separately from the response data. To support participants, researchers provided visual guides and multiple response formats (text/image), and ensured that forms work on basic devices. Our local facilitators assisted in maintaining privacy protocols, and alternative methods, such as phone interviews, were made available when needed. This balanced approach ensures both accessible participation and data protection, allowing meaningful contributions while maintaining information security. All measures were documented in the research protocol to demonstrate compliance with the ethical research standards. The participants were invited to complete the survey. Confidentiality of the data was strictly secured.

Data analysis: The statistical analyses were performed utilizing SPSS version 25 for Windows. To elucidate the characteristics of the variables, descriptive statistics (mean, SD, percentage, and frequency distribution) were employed. Bivariate correlation analyses were conducted to examine the relationships among the study variables. The associations between SWB, social support, and QOL were evaluated using Pearson's correlation coefficients. A p-value of less than 0.05 was considered statistically significant, indicating a significant association between the variables.

RESULTS

Demographic characteristics: Of the 204 participants who completed the questionnaires, 123 (60.3%) were MSM and 81 (39.7%) were TGW. A majority (51.5%) of the participants were between 30-49 years of age. All of them were Buddhist. Approximately 71.6% finished high school. Most of them (92.2%) were employed. About 68.6% reported that they lived with others. And 58.8% reported that their monthly income was less than 5,000 Thai Baht. About 67.2% reported having been on ART for 1-5 years. About 46.08% reported that they disclosed their HIV status (Table 1).

Examination of social support, spiritual well-being, and quality of life among study participants: As indicated in Table 2, the study participants exhibited moderate levels of social support, as indicated by the mean score of 97.49 (SD. = 10.60). Their self-reported SWB was notably high, with a mean of 90.11 (SD. = 13.24).

Table 1: Participant demographics (n=204)

Characteristics	Participants (%)
Sexual orientation	
MSM	123 (60.3)
TGW	81 (39.7)
Age (years)	
18-29	83 (40.7)
30-49	105 (51.5)
50-59	16 (7.8)
Mean ± SD	41.19 ± 7.8
Range - Min-Max	18-56
Religion	
Buddhist	204 (100)
Others	0 (0)
Education	
Primary school	7 (3.4)
High school	146 (71.6)
Vocational school	43 (21.1)
Diploma	6 (2.9)
Bachelor degree	2 (1)
Occupations	
Employed	188 (92.2)
Unemployed	16 (7.8)
Living status	
Living alone	64 (31.4)
Living with family/partner	140 (68.6)
Monthly income (in Bahts, 36 Bahts=\$ USD 1)	
< 5,000	120 (58.8)
5,001-10,000	27 (13.2)
10,001-20,000	49 (24)
20,001-30,000	8 (3.9)
Duration on ART (in years)	
<1	16 (7.8)
1-5	137 (67.2)
>5	51 (25)
Disclosure of HIV-infected status	
Yes	94 (46.08)
No	110 (53.92)

Table 2: Mean and standard deviations for variables of interest among study participants (n=204)

Variables	Score	Mean ^a ± SD.	Meaning
Social support	63-122	97.49 ± 10.6	Moderate
Spiritual well-being	66-125	90.11 ± 13.24	High
Quality of life	64-116	85.4 ± 10.67	Moderate
Physical domain	17-32	26.84 ± 4.05	Moderate
Psychological domain	12-26	19.11 ± 3.13	Moderate
Social relationships domain	6-15	9.27 ± 1.84	Moderate
Environment domain	17-38	23.85 ± 3.06	Moderate

NOTE: SD.=standard deviation.

a. Greater scores indicate greater levels of social support, spiritual well-being, and quality of life.

Table 3: QOL among MSM and TGW living with HIV according to a descriptive characteristics analysis (n=204)

Descriptive characteristics	Mean (SD.) of WHOQOL-BREF-THAI	P value
Sexual orientation		
MSM	84.71(10.76)	0.56 ^b
TGW	86.47(10.52)	
Age (in years)		
18-29	85.50(10.63)	0.77 ^a
30-49	85.61(11.30)	
50-59	83.56(5.96)	
Living status		
Living alone	86.78(11.39)	0.27 ^b
Living with partner/others	84.77(10.31)	
Education		
Primary school	69.01(1.41)	<0.05 ^{*a}
High school	78.12(10.84)	
Vocational school	84.30(9.56)	
Diploma	85.81(10.59)	
Bachelor	94.71(12.14)	
Employment status		
Employed	85.30(10.51)	0.12 ^b
Unemployed	86.75(12.84)	
Monthly income (\$USD)		
<156	79.11(9.72)	<0.05 ^{*a}
157-313	84.40(9.95)	
314-625	89.53(10.48)	
626-938	96.50(9.33)	
Duration on ART (in years)		
< 1	91.00(12.72)	0.07 ^a
1-5	85.21(10.67)	
> 5	84.17(9.62)	
HIV status disclosure		
Not disclose	84.51(10.44)	<0.05 ^{*b}
Disclose	88.48(11.02)	

* $p < 0.05$. ^aOne-way ANOVA was performed.

^bIndependent *t*-test was conducted.

Abbreviation: WHOQOL-BREF-THAI (World Health Organization Quality of Life Brief - Thai scale)

Table 4: The associations among social support, SWB, and QOL (n=204)

Variables	QOL Correlation Coefficient (r)	P value
Social support	0.459	<0.05*
Spiritual well-being	0.501	<0.05*

*Significance level at $p < 0.05$

Overall QOL was assessed at a moderate level, yielding a mean score of 85.40 (SD. = 10.67). Analysis of individual QOL domains revealed the following results: physical domain (M = 26.84, SD. = 4.05), psychological domain (M = 19.11, SD. = 3.13), social relationships domain (M = 9.27, SD. = 1.84), and environmental domain (M = 23.85, SD. = 3.06), all of four domains were reported at a moderate level.

QOL among MSM and TGW living with HIV according to the descriptive characteristics: As shown in Table 3, QOL scores were statistically significantly higher in those who obtained bachelor's degree, those who had monthly income between 20,001-30,000 baht, and those who disclose their HIV status ($p < 0.05$). There was no significant rela-

tionship between QOL scores, sexual orientation, age, living status, employment status, and duration on ART ($p > 0.05$).

Correlations among social support, SWB, and QOL of Thai MSM and TGW living with HIV: As indicated in Table 4, there was a significant positive association between overall social support and QOL ($r = 0.459$, $p < 0.05$). Moreover, overall SWB was positively and significantly associated with QOL ($r = 0.501$, $p < 0.05$).

DISCUSSION

The aim of this secondary analysis study was to evaluate the QOL among Thai MSM and TGW living with HIV and the relationships among QOL and various factors, such as social support and spiritual well-being among MSM and TGW living with HIV. In this study, the overall mean score of QOL among the participants was 85.40 (SD.=10.67), indicating a moderate level of QOL. Among the QOL domains, the physical domain had the highest mean score of 26.84 (SD.=4.05), followed by the environment domain with a mean score of 23.85 (SD.=3.06), and the psychological domain with a mean score of 19.11 (SD.=3.13). The social relationships domain had the lowest mean score of 9.27 (SD.=1.84). All these domains were reported at a moderate level. One plausible explanation is that the universal health coverage scheme in Thailand, commonly known as the 30-baht scheme, encompasses HIV treatment and associated healthcare services. This comprehensive program, which is the country's largest healthcare initiative, ensures that all Thai citizens have access to universal health care. Consequently, MSM and TGW living with HIV can obtain ART services at no cost. This provision of free treatment may potentially result in improved physical health outcomes for the participants in this particular study. Comparing these mean scores with a study conducted in Indonesia, QOL scores in domains in our study were higher, except social relationships domain.

Moreover, our study revealed that the participants reported social support at a moderate level (M=97.49). The current finding was relatively higher than the study conducted among PLWH in tertiary hospital in China.¹⁸ The disparities in levels of social support observed across studies may be attributed to variations in socio-demographic characteristics, cultural differences among populations, and divergent individual perceptions regarding the availability of social support. The participants reported their overall SWB as high (M=90.11, SD.=13.24). Our finding highlights the importance of SWB in a sample of Thai MSM and TGW living with HIV. This is congruent with the literature that emphasizes SWB's importance among PLWH.⁶ SWB has played a significant role within PLWH communities. A growing body of evidence indicates that SWB improves health and

contributes to the ultimate health outcome, QOL for PLWH.¹⁹

According to the result of our study, MSM and TGW living with HIV who obtained bachelor's degree had higher QOL scores. The result of this study aligns with findings from a previous study conducted in Brazil by Soares and colleagues.²⁰ indicating that the higher the educational level, the better the QOL. This reflects the reality that individuals with a higher level of education obtained from access to knowledge and different sources of healthcare information have a better understanding of the impact of certain health determinants on their own health. Hence, individuals' judgement and comprehension of their health may facilitate their acceptance of the disease and resignation towards their serologic condition.

Moreover, this study found that the participants who reported higher monthly income had greater QOL scores. This study revealed that participants' monthly income was predominantly low. A significant proportion (58.8%) of the study participants received wages at or below the Thai minimum wage threshold. These findings corroborate previous study indicating that individuals with incomes below the minimum wage threshold exhibited reduced QOL scores across multiple domains.²¹ Financial constraints, as evidenced by low-income levels, may adversely affect PLWH in various ways, including challenges in accessing nutritious food and meeting healthcare expenses, both of which are crucial for maintaining positive health outcomes and overall QOL.²²

This study also found that the participants who disclose their HIV status had higher QOL scores. This could be explained by the fact that HIV status disclosure serves as a beneficial and empowering experience, facilitating the acceptance of HIV infection among persons living with HIV/AIDS. HIV status disclosure makes it easier to gain understanding, positive response, and psychological support.²³ It will increase participants' belief in fighting disease and help them actively seek for treatment strategies, and then reduce the chance of non-medication adherence or hinder their access to healthcare services.²⁴ This is similar to a previous study conducted among HIV-infected MSM receiving antiretroviral in China indicating that disclosure of HIV status was significantly associated with QOL.²³

Additionally, the findings of this study showed that there was a significant positive relationship between social support and QOL. The impact of this factor on QOL in HIV-infected individuals was demonstrated in a study conducted by Xiao et al²⁵, which found that PLWH who perceived themselves to have greater support were more likely to report a higher QOL. A study of PLWH in rural India²⁶ also showed a significant positive relationship between social support and QOL. In interpreting this finding, it is important to note that more than half of the participants resided with family or partners. According to House's concepts of social support²⁷, appraisal support in-

volves information for self-evaluation purposes, suggesting that PLWH who have individuals with whom to discuss problematic issues and exchange information may be better equipped to improve their QOL. In this study, external support from family or partners might be the primary source of physical and psychological support for MSM and TGW living with HIV. In Thai culture, family relationships are particularly strong. Family members and relatives are important sources of support for HIV-infected patients.⁸ This result elucidates the potential influence of social support on QOL among MSM and TGW living with HIV.

Consistent with the findings of previous studies^{6,28}, our finding showed a significant relationship between SWB and QOL, with evidence demonstrating that MSM and TGW living with HIV reported significantly better QOL in the presence of SWB. These could be attributable to the fact that in rural Thai communities, the lives of MSM and transgender women with HIV are profoundly influenced by deep-rooted cultural factors. Buddhism remains a significant force, with temples and monks playing crucial roles that may either oppose or support gender diversity through conventional perspectives or compassionate Buddhist teachings.²⁹⁻³¹ The dynamics of rural families, often characterized by extended relatives living in close quarters, make familial acceptance vital while potentially imposing pressure to adhere to traditional gender roles. These rural areas maintain stronger connections to conventional healing methods and spiritual health beliefs, frequently blending local healers and rituals with HIV care.³² The notion of "face" is particularly important in rural settings, where the fear of disgracing one's family might cause individuals to conceal their identity or HIV status. Nevertheless, when acceptance is present, tight-knit rural communities can provide more comprehensive social support compared to urban areas.³³ The scarcity of MSM and TGW specific resources in rural regions means that support typically flows through informal networks and established community structures rather than specialized urban organizations. Hence, the incorporation of SWB as a pertinent factor in evaluating psychosocial aspects and QOL is substantiated by our findings, particularly in the context of MSM and TGW populations living with HIV in rural settings.

LIMITATIONS

The current study exhibits several notable limitations. Foremost among these is the inherent constraint of cross-sectional study designs, which preclude the establishment of causal directionality due to the simultaneous collection of all data. Furthermore, the study's sample was geographically restricted and based on convenience, comprising participants from two ART clinics housed in rural Thai secondary care hospitals. These facilities primarily

served PLWH within their immediate vicinity, thus limiting the extrapolation of findings to HIV-infected individuals outside these specific communities. Consequently, subsequent investigations should strive to encompass a broader and more diverse study population to enable a more rigorous and comprehensive analysis.

CONCLUSION

The findings of this study reveal a nuanced reality: these individuals experience moderate QOL, intricately linked with social support and SWB. Through rigorous methods and a solid conceptual framework, the study lays crucial groundwork for MSM and TGW research in Thailand. It paints a picture of health outcome amidst challenges, highlighting the vital role of community and personal perception in navigating their living with HIV. The findings underscore an urgent need for tailored nursing interventions, emphasizing that improving QOL for MSM and TGW should be a healthcare priority in Thailand.

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Individual Authors' Contributions: **AV:** conceived the study; **NK:** worked on the manuscript with input from all authors; **WS:** assisted with the measurements; **SP:** collected data; **PC:** analyzed the data; **TN:** aided in interpreting the results

Availability of Data: The data presented in this study are available upon reasonable request from the corresponding author (NK) due to privacy/ethical restrictions.

Generative artificial intelligence: No use of generative AI tools.

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