

# **A Sequential Explanatory Study on the Mental Health of Filipino Youth Living with Human Immunodeficiency Virus (HIV)**

**Benny S. Soliman**

*Tarlac Agricultural University, Philippines*

Research studies confirm that individuals with chronic illnesses, such as Human Immunodeficiency Virus (HIV), are at risk for developing multiple mental health conditions. In the Philippines, despite the alarming increase in HIV cases among young people, research investigating their mental health remains limited. Hence, this study was conducted to explore the mental health of Filipino youth living with HIV (YLHIV). A mixed-method approach was utilized, particularly the sequential explanatory research design. In the quantitative phase of the study, 50 Filipino YLHIV participated and 10 among them underwent the phenomenological interview format (qualitative phase). The results found that 72% of the participants had mild to severe depression and 44% reported thoughts of suicide. Further, three themes that characterized their mental health emerged from descriptive phenomenology, i.e., (a) disruptive thoughts, (b) depressive mood, and (c) deteriorative behavior. These findings may serve as a basis for government officials and other advocacy groups in developing mental health programs for YLHIV. Comprehensive and accessible mental health services for this population are highly recommended.

*Keywords:* mental health, human immunodeficiency virus (HIV), youth living with HIV (YLHIV), suicide, depression.

At the end of 2021, the World Health Organization (WHO) reported that 38.4 million people worldwide were living with Human Immunodeficiency Virus (HIV), which makes the disease a major global public health concern. Of all the HIV cases globally, adolescents and young people represent a growing proportion of affected individuals. In 2020 alone, more than 400,000 young people were newly infected by HIV (UNICEF, 2021).

Young people with a chronic illness like HIV are also at risk of developing mental health conditions such as depression and anxiety disorders compared to the general population. This is supported by a

---

*Author info:* Correspondence should be sent to: Dr. Benny S. Soliman, Office of Student Services and Development, Tarlac Agricultural University, Philippines, [bssoliman@tau.edu.ph](mailto:bssoliman@tau.edu.ph)

*North American Journal of Psychology*, 2023, Vol. 25, No. 2, 389-404.

© NAJP

quantitative study conducted in the United States showing that 17.5% of youth living with HIV had psychological symptoms of anxiety and depression (Brown et al., 2015), compared with only 2.1% and 6.7%, respectively, in the general population (Center for Behavioral Health Statistics and Quality, 2017). Similarly, a study in Mozambique indicated that adolescents with HIV had higher scores of depression, post-traumatic stress disorder, anxiety, and alcohol and drug abuse, than youth without HIV (Gennaro et al., 2022). In Thailand, Chantaratin et al. (2022) found that about 20% of young people with HIV had significant levels of depression and anxiety. Further, Kamau et al. (2012) indicated that 49% of the YLHIV participants in Kenya reported having at least one clinical diagnosis, such as anxiety disorder or major depressive disorder.

In response to the reported mental health issues of YLHIV, several countries have developed psychosocial programs for this population. Bhana et al. (2020), upon review of 16 studies on YLHIV, observed that the most often used interventions to improve the mental health of YLHIV included family-strengthening approaches, caregiver-adolescent relationships, problem-solving, and communication. In Tanzania, Njau et al. (2022) developed rather comprehensive interventions to address the depression of young people with HIV, including psycho-education, behavioural activation, cognitive restructuring, mood monitoring, and problem solving techniques.

In the Philippines, the Department of Health reported that amidst the COVID-19 pandemic, an estimated 3.6 million Filipinos faced mental health issues such as depression, substance use disorders, and bipolar disorder (University Research Co., 2021). However, despite the growing cases of HIV among Filipino youth, the literature investigating their mental health remains limited. Hence, this sequential explanatory study was conducted.

## METHOD

### Participants

The present study used a sequential explanatory design which consisted of two distinct phases: quantitative followed by qualitative phase. In the first phase, the researcher collected and analyzed quantitative data from 50 Filipino youth living with HIV. The participants' ages ranged from 18-30 years, with 80% identified as male, 18% married or partnered, and 84% reported living with their families. Then, the collection and analysis of qualitative data from 10 selected YLHIV who participated in the phenomenological interview were conducted in the second phase.

Prior to data gathering, all procedures performed in the present study that involved human participants were approved by the Ethics Review

Committee of the University of Santo Tomas, Manila, Philippines, with Protocol Number (G-2018-PN031).

### Measures

The researcher used the following instruments to collect data for this study: *Mental Health Inventory* (MHI-38); *Beck Depression Inventory* (BDI); *Adult Suicidal Ideation Questionnaire*; and *Interview Protocol*. Each instrument is described below:

*Mental Health Inventory* (MHI-38). MHI-38 is a 38-item self-report tool measuring psychological distress and well-being (Veit & Ware, 1983). The MHI measures six subscales: anxiety, depression, loss of behavioral/ emotional control, general positive affect, emotional ties, and life satisfaction. Sample items of MHI are as follows: "How often did you become nervous or jumpy when faced with excitement or unexpected situations during the past month?" and "How happy, satisfied, or pleased have you been with your personal life during the past month?" As regards the psychometric properties of the MHI, Veit and Ware (1983) tested the instrument with 5089 persons aged 13–69 yrs. The results indicated that MHI had .93 Cronbach alpha, whereas its abbreviated version was found to be .82. To confirm the reliability of the instrument, a confirmatory analysis was conducted by Heubeck & Neill (2000) with adolescents who were literate in the English language and showed an internal consistency of .90.

*Beck Depression Inventory* (BDI). The BDI is a self-report rating inventory consisting of 21 items designed to measure symptoms of depression, such as mood, guilt, suicidal ideas, loss of appetite, pessimism, and sense of failure, among others. The *Beck Depression Inventory* has acceptable psychometric properties; its internal consistency ranges from .73 to .92 with a mean of .86 (Beck et al., 1988). The instrument has high internal consistency with alpha coefficients of .86 for psychiatric populations and .81 for non-psychiatric populations (Beck et al., 1988).

*Adult Suicidal Ideation Questionnaire* (ASIQ). The ASIQ consists of 25 items designed to measure the individual's level of suicidal ideation which provides valuable information about the mental health of the individual (Reynolds, 1991). The items of ASIQ are rated on a 7-point scale that measures how frequently the individual thought of committing suicide within the past month. Higher scores in this instrument are indicative of greater suicidal ideation. ASIQ includes items such as "I thought it would be better if I was not alive," and "I thought that if I had a chance, I would kill myself." In terms of the validation and standardization process, the scale was administered to more than 2,000 individuals in college, community, and psychiatric settings. The internal

consistency reliability of the scale was alpha reliability coefficient of .96 (community sample), .96 (college student sample), and .96 (psychiatric sample) (Reynolds, 1991). The scale also has a high test-retest reliability coefficient of .95 (Reynolds, 1999).

These instruments were administered in person at Pinoy Plus Advocacy Pilipinas, Inc., a pioneer support group dedicated to the welfare of people living with HIV in the Philippines. The participants finished the instruments in an average duration of 30-40 minutes.

#### **Interview Protocol**

To have a deeper understanding and corroboration of the quantitative data on the participants' mental health, the researcher employed a qualitative approach, specifically the phenomenological research design. This design focuses on describing a particular phenomenon as accurately as possible (Groenewald, 2004). Using said design, the researcher accurately described the lived experiences of YLHIV concerning their mental health. Ten YLHIV recruited from Pinoy Plus Advocacy Pilipinas Inc. participated in the phenomenological interview. Moreover, the researcher developed a semi-structured interview guide to uncover their lived experiences in relation to mental health. Particularly, the interview guide aimed to reveal their experiences with depression, anxiety, suicide, and other mental health issues. Specifically, the questions included items on the emotional, social, and psychological well-being of the participants such as "How do you view your emotional well-being now as HIV+", "Have you ever experienced long-term sadness because of your condition"? If yes, how long was it?

#### **Data Analysis**

The data were then analyzed quantitatively and qualitatively. In the quantitative phase of the study, descriptive statistics were employed to analyze the mental health profile of the participants. For the qualitative phase of the study, the researcher used Colaizzi's (1978) seven-step method to analyze the data. The process included: (1) familiarizing with the data by reading the participants accounts; (2) pulling out significant statements from the participants' accounts; (3) formulating meaningful units from the significant statements; (4) categorizing the meaningful units into clusters of themes; (5) developing a full and inclusive description of the phenomenon by incorporating all the themes produced at step 4; (6) condensing the exhaustive description down to a short, dense statement that captures just those aspects deemed to be essential to the structure of the phenomenon; and (7) returning the fundamental structure statement to all participants.

## RESULTS

**Quantitative Results**

Table 1 shows the comprehensive profile of the participants in terms of their mental health.

**Table 1**

Mental Health Profile of Filipino Youth Living with HIV

Variable	Frequency	%
<b>Mental Health Index</b>		
High	21	42%
Low	29	58%
Psychological Distress		
High	31	62%
Low	19	38%
Psychological Well-being		
High	22	44%
Low	28	56%
<b>BDI (Depression)</b>		
Normal	14	28%
Mild	10	20%
Moderate	12	24%
Severe	14	28%
<b>ASIQ (Suicidal Ideation)</b>		
High	22	44%
Low	28	56%

*N*=50

Favorable results that indicate greater psychological well-being were outnumbered on every component measure. Forty-two percent (42%) of YLHIV scored as mentally healthy, while 58% scored low—an indication that more than half of the respondents had a negative state of mental health. Further, a specific result was obtained from the two global scales, whereas 62% scored high in psychological distress and only 38% reported low scores. Forty-four percent of the participants reflected positive psychological well-being when more than half (56%) suffered psychological distress. Only 28% of the respondents had normal levels of depression, whereas roughly 72% ranged from mild to severe levels. Lastly, based on the *Adult Suicidal Ideation Questionnaire*, 44% scored high, whereas 56% obtained low scores, which reflects that many of these adolescents have expressed suicidal ideation.

**Qualitative Results**

Through careful analysis vis-à-vis transcendental and eidetic reduction of the narratives of select youth living with HIV, this study

afforded the emergence of three themes namely: (a) disruptive thoughts, (b) depressive mood, and (c) deteriorative behavior.

*Disruptive Thoughts* Accommodating the fact that HIV infected them was very disturbing for the participants. They were besieged by several irrational thoughts, such as overestimation of danger and illogical interpretation of their diagnosis. Particularly, they were terrified by the thoughts of dying at a young age and were worried about their future. As verbalized by the participants:

That time, I kept on thinking that I was dying, that there is no treatment for HIV. I was worried for my family because I am the breadwinner" (Participant 2).

I thought I was dying. I was thinking what will happen to the dreams I have for my family. Moreover, I was bothered on how to tell my parents about my health condition (Participant 10).

Besides entertaining irrational thoughts, the participants were likewise disturbed by anxious thoughts as manifested by their fear of being rejected and discriminated against by family, friends, and romantic partner and in the workplace. As expressed by the participants:

How can I work if I have this illness? They might trace it through medical examination (Participant 1).

I am afraid to form a romantic relationship because I might transmit the virus. I don't want my partner to get sick because of me (Participant 3).

Cognizant of their present health condition, the participants were also bombarded with suicidal thoughts as evidenced by their death wish, thinking of killing themselves, and thoughts that other people are better off without them.

I thought that instead of dying from the opportunistic infections of this virus, I wish I would not wake up the next day (Participant 1).

The irrational and anxious thoughts of the participants were entrenched from certain triggers in their environment, particularly the lack of available information about HIV. They articulated that they had limited information about the illness and the information they did have was mostly misconceptions about its transmission, treatment, and prevention. This wrong notion triggered the fear of being rejected and discriminated against in the workplace.

This finding supports the claim of Cournos et al. (2005) and Dorrell et al. (2008) that after learning about their HIV status, most PLHIV had personal concerns like the fear of death and uncertainties about the future. Additionally, the anxious thoughts of the participants were expressed by their fear of rejection and discrimination. The findings converged with the study of Jena (2014) in one wellness clinic in South Africa, indicating that adolescents living with HIV showed anxiety. These anxious thoughts were fueled by a lack of accurate information about their health condition. Moreover, youth living with HIV were bothered with suicidal thoughts and death wishes. According to Badiee et al. (2011), suicidal thought is common among people with HIV as compared to the general population. Alarming, suicide rates have been reported at elevated levels in this population (Carrico, 2010). This suicidal tendency is triggered by the burden that accompanies the long-lasting implication of being HIV positive (Kalichman et al., 2000). Further, stigma, discrimination, low self-esteem, and lack of social support are other factors directly associated with suicidal thoughts and behaviors of people living with HIV (Casale et al., 2019; Wang et al., 2018).

*Depressive Mood* Learning that they were infected by HIV was not easy for the participants. They were blasted with the emotional turmoil that intruded on their daily activities at home, in school, and even in the workplace. Notably, the participants articulated their experience of emotional distress on the first few months of living with the illness. They were in a deep state of agony and disbelief. As verbalized by the participants:

I felt like I was going crazy that time. Some of my friends told me not to stress myself, but it stressed me a lot. From time to time, it sank in. I really didn't know what to do (Participant 1).

It felt like I was blown up when they told me about the result. I even tried to ask for a second opinion because I couldn't believe it. Gosh, I was extremely terrified at that time. 'I'm certain my parents will kill me,' I uttered (Participant 2).

The other participants experienced persistent feelings of sadness. They verbalized feelings of aloneness and loneliness especially the undisclosed YLHIV. Generally, they felt miserable because of their health condition. The following are some of the verbalizations of the participants:

After knowing the HIV test result, I kept it for a long time. When I was with my parent, I pretended to be OK, but in reality, I felt so sad most of the time" (Participant 7).

"I felt lonely; I had difficulty coping with loneliness. I couldn't do the things that I previously enjoyed; I lost interest in almost everything" (Participant 6).

Likewise, the participants conveyed their experience of hopelessness as they struggled with HIV. They were uncertain about their future and expressed pessimism about life in general.

I have a lot of dreams in life, dreams for my family, but all these dreams are shattered because of my illness. I felt so hopeless (Participant 4).

The indices of depressive mood were prompted by discrimination. One participant shared that he experienced discrimination from his own family. He said:

After telling my parents about my condition, I noticed that they avoided using the utensils we used to share like drinking glass, spoon, and fork. I even shared a room with my brother before, but now, they asked him to move out of my room (Participant 1).

Another factor that incited the depressive mood of the participants was non-disclosure. They reported having difficulty disclosing their health condition due to the stigma associated with the illness.

This finding concurs with the report of UNAIDS (2018) that people with HIV have a higher risk of developing mental health conditions like depressive symptoms. The said report supports the claim that medical conditions like HIV could serve as a major source of stress that negatively affects a person's mental health (US Department of Health and Human Services, 2020). In South Africa, young people with HIV reported mental health difficulties of depression and stigma (Toska et al., 2019). In a cross-sectional study conducted in Jamaica, youth with HIV ages 15- 25 years were found to have high rates of stress (64%) and depression (63%) (Brown & Morgan, 2013). The depressive symptoms of YLHIV are triggered by factors such as discrimination, non-disclosure, and lack of social support. This particular result is aligned with the findings that living alone and having poor social support were significantly associated with depression (Amare et al., 2017; Bhatia & Munjal, 2014).

*Deteriorative Behavior* The participants also struggled with behavior that impaired their physical and social well-being. After knowing their HIV status, they started engaging in several deteriorative behaviors like losing

interest. Particularly, the participants started to lose interest in their work, refused to go school, and disengaged themselves with activities they previously enjoyed. As uttered by the participants:

I came to the point that in almost two months, I did not go to work. I lost my willingness to work" (Participant 5).

Before, I loved going to the gym. I usually spent an hour or two twice or three times a week. But now, I don't go to the gym anymore (Participant 6).

Moreover, the participants experienced self-neglect while living with a chronic illness. They disregarded the regular intake of food and ate on an irregular schedule.

What happened to me was I skipped some meals in a day. There was even a time that I ate only once each day. I had difficulty getting up to do the usual (Participant 9).

Some participants even engrossed themselves in dangerous vices like substance use as a form of avoidant coping mechanism.

The time that I learned about my HIV status, I started smoking cigarettes, drinking alcoholic beverages, and even tried taking marijuana. I felt so devastated. That's why I didn't care about my health anymore (Participant 1).

For people living with HIV, participating in the usual social interactions was challenging. The participants reported that they experienced withdrawal from other people, such as their friends and workmates.

Actually, I started to avoid mingling with my friends. I was afraid that every time I was with them, they might discover my health condition (Participant 10).

Loss of interest and self-neglect were triggered by internalized stigma, specifically the thought of dying at a young age. This negative notion about the illness fueled their unwillingness to perform their usual tasks. Meanwhile, engaging in dangerous vices was entrenched in denial of HIV status. They refused to accept their diagnosis; hence, they engaged in avoidant coping mechanisms. Further, the participants' experiences of discrimination from family and friends provoked social withdrawal. They detached themselves from social activities because they were repudiated by their own family.

YLHIV displayed behaviors that harm their physical health, such as smoking cigarettes, drinking alcohol, and using marijuana (Brown & Morgan, 2018). These behaviors are coping mechanisms of YLHIV in dealing with psychological distress brought about by their illness (Duko et al., 2019). This suggests a significant link between psychological distress and substance use among young people infected by HIV. In terms of social withdrawal, the British HIV Association and British Association for Sexual Health (2018) reported that social isolation is one of the top lists of unmet social needs among YLHIV in the United Kingdom. They withdraw from other people out of fear of being stigmatized and discriminated (Dejman et al., 2015; Wallack & Brotman, 2012).

### DISCUSSION

The quantitative findings imply that YLHIV struggle with mental health conditions such as anxiety, depression, and loss of behavioral/emotional control. This supports the survey conducted by Youth Stop Aids (n.d.) in America, wherein 85% of young people reported their mental health is worse and poorer than non-HIV peers. As stated by Dow et al. (2020), YLHIV with unaddressed/unattended mental health problems are indeed increasing. The Youth group alone had a high prevalence of mental health issues (Newman et al., 2021), but those who live with HIV are frequently diagnosed with mental health disorders (Pokhrel, 2019). Further, they often experience problems in emotional, psychological, and behavioral aspects at higher rates than the general population (Mellins & Malee, 2013). Moreover, this quantitative finding is also aligned with the themes that emerged from the qualitative phase of the present study. The participants reported that they experienced anxiety as manifested by their irrational fears, worries, and intrusive thoughts caused by the misconceptions they held about HIV.

BDI results showed that 52% of the respondents reported mild to severe levels of depression, which is higher than the general population. This is supported by the study of Brown et al. (2015), showing that 17.5% of youth living with HIV had psychological symptoms of depression compared with only 6.7% in the general population (Center for Behavioral Health Statistics and Quality, 2017). That is similar to the findings of Girma et al. (2021) which showed a 30.2% prevalence of depression in Ethiopia, and that of Fawzi et al. (2016) which revealed a 26% prevalence in Rwanda. Additionally, Benton (2019) found that depression simultaneously existed with HIV among the population of youth, which then, as a result, worsened the negative state of their mental health. Further, depression is one of the themes that emerged from the phenomenological interviews conducted in the present study. As reported

by the participants, they experienced long-term sadness, feelings of guilt, and hopelessness.

Based on the *Adult Suicidal Ideation Questionnaire* result, 44% scored high, while 56% obtained low results. Though low scorers are more than half, 44% is still a large portion of the sample, which reflects that many of them were suicidal or have been thinking of ending their lives. As stated by Tsegay & Ayano (2020), people with HIV have a high prevalence of suicidal attempts and ideation, and the worst is, it was linked with high risk of complete suicide. Suicide is a serious cause of death globally, but YLHIV's rate of suicidality proved to be higher than the general population (Wonde et al., 2018). They also found a magnitude of 27.1% HIV patients who have suicidal ideation, and 16.9% had attempted self-annihilation. A systematic review further unveiled that 26.9% of HIV patients have reported suicidal ideation, 22.2% had planned the deed, 20% harmed themselves, 23.1% has been thinking to end their lives, 14% desired death (Catalan et al., 2011), and 24.38% had suicidal ideation in their lifetime (Tsegay & Ayano, 2020). Consistently, qualitative data from the current study indicated that the participants experienced suicidal ideation in the form of death wish, thinking of harming or killing one's self, and thinking that others would be better off without them.

Globally, studies consistently indicate that mental health of YLHIV is poor. They have a high prevalence of depression and are suicidal. The percentage from the present study shows it is even higher in the Philippines. Such a result reveals that their population is at high risk of having mental health issues, and this may be a manifestation of a systemic problem. Stigma from society and the self, social rejections, prejudice, and disinformation worsens their situation. In the Philippines, Alibudbud (2022) reiterated that gender-based discrimination, lack of sex education and communication negatively affect their mental health. With this, HIV infection turns out to be a problem that does not only start and end on the person alone and the infection attained from several mediums. Poor mental health also reflects their unhealthy environment and negative roles played/contributed by the social system.

The present study only focused on describing the mental health status of YLHIV using a mixed-research approach. The result does not establish the causal relationship of HIV diagnosis and mental health. Other limitations of the study include small sample size and the reliance of self-report for measurement. Hence, it is suggested that additional research should be conducted to better assess the mental health of youth living with HIV.

#### REFERENCES

- Alibudbud, R. (2022). Social and psychological factors influencing HIV sexual risk behaviors among young adult Filipino Men who have sex with men

- (MSM) in Metro Manila. *Sexual Health & Compulsivity*, 29(1-2), 38-55. <https://doi.org/10.1080/26929953.2022.2056555>
- Amare, T., Getinet, W., Shumet, S., & Asrat, B. (2018). Prevalence and associated factors of depression among PLHIV in Ethiopia: Systematic review and meta-analysis. *AIDS Research and Treatment*. <https://doi.org/10.1155/2018/5462959>.
- Andersen, L., Kagee, A., Cleirigh, C., Safren, S., & Joska, J. (2015). Understanding the experience and manifestation of depression in people living HIV/AIDS in South Africa. *AIDS Care*, 27 (1). 59-62. <https://www.ncbi.nlm.nih.gov/pubmed/25303372>.
- Badiee, J., Moore, D., Atkinson, H., Vaida, F., Gerard, M., Duarte, N., Franklin, D., Gouaux, B., McCutchan, A., Heaton, R., McArthur, J., Morgello, S., Simpson, D., Collier, A., Marra, C., Gelman, B., Clifford, D., & Grant, I. (2011). Lifetime suicidal ideation and attempt is common among HIV+ individuals. *Journal of Affective Disorders*, 136 (3). 993-999. <https://doi.org/10.1016/j.jad.2011.06.044>.
- Beck, A. T., Steer, R.A., & Garbin, M.G. (1988) Psychometric properties of the Beck Depression Inventory: Twenty-five years of evaluation. *Clinical Psychology Review*, 8 (1), 77-100. [https://doi.org/10.1016/0272-7358\(88\)90050-5](https://doi.org/10.1016/0272-7358(88)90050-5).
- Bekker, L. G., Johnson, L., Wallace, M., & Hosek, S. (2015). Building our youth for the future. *Journal of the International AIDS Society*, 18, 20027. <https://doi.org/10.7448/IAS.18.2.20027>
- Benton, T. D., Ng, W., Leung, D., Canetti, A., & (follow APA style) Karnik, N. (2019). Depression among youth living with HIV/AIDS. *Child and Adolescent Psychiatric Clinics of North America*, 28(3), 447-459. <https://doi.org/10.1016/j.chc.2019.02.014>
- Bhana, A., Mellins, C.A., Petersen, I., Alicea, S., Myeza, N., Holst, H., Abrams, E., John, S., Chhagan, M., Nestadt, D., Leu, C., & McKay, M. (2013). The VUKA family program: Piloting a family-based psychosocial intervention to promote health and mental health among HIV infected early adolescents in South Africa. *AIDS Care*, 26 (1), 1-11. <https://doi.org/10.1080/09540121.2013.806770>
- Bhatia, M. S., & Munjal, S. (2014). Prevalence of depression in people living with HIV/AIDS undergoing ART and factors associated with it. *Journal of Clinical and Diagnostic Research: JCDR*, 8(10), WC01-WC4. <https://doi.org/10.7860/JCDR/2014/7725.4927>.
- British HIV Association and British Association for Sexual Health. (2018). *Loneliness and isolation top list of unmet social needs among people living with HIV in the UK*. <http://www.aidsmap.com/news/apr-2018/loneliness-and-isolation-top-list-unmet-social-needs-among-people-living-hiv-uk>.
- Brown, T., & Morgan, K. (2013). Psychological distress and substance abuse in Jamaican youths living with HIV/AIDS. *West Indian Medical Journal*, 62 (4). 341-345. <https://doi.org/10.7727/wimj.2013.024>.
- Brown, L.K., Whiteley, L., Harper, G.W., Nichols, S., & Nieves, A. (2015). Psychological symptoms among 2032 youth living with HIV:

- A multisite study. *AIDS Patient Care and STDs*, 29 (4). <https://doi.org/10.1089%2Fapc.2014.0113>
- Cain, R., Jackson, R., Prentice, T., Collins, E., Mill, J., & Barlow, K. (2013). The experience of HIV diagnosis among aboriginal people living with HIV/AIDS and depression. *Qualitative Health Research*, 23 (6). 815-824. <https://doi.org/10.1177%2F1049732313482525>.
- Carrico, A.W. (2010). Elevated suicide rate among HIV positive persons despite benefits of antiretroviral therapy: Implications for a stress and coping model of suicide. *The American Journal of Psychiatry*, 167 (2). <https://doi.org/10.1176/appi.ajp.2009.09111565>.
- Casale, M., Boyes, M., Pantelic, M., Toska, E., & Cluver, L. (2019). Suicidal thoughts and behavior among South African adolescents living with HIV: Can social support buffer the impact of stigma?. *Journal of Affective Disorders*, 245 (15). 82-90. <https://doi.org/10.1016/j.jad.2018.10.102>.
- Catalan, J., Harding, R., Sibley, E., Clucas, C., Croome, N., & Sherr, L. (2011.). HIV infection and mental health: Suicidal behaviour – Systematic review. *Psychology, Health & Medicine*, 16(5), 588-611. <https://doi.org/10.1080/13548506.2011.582125>
- Center for Behavioral Health Statistics and Quality. (2017). *2016 National survey on drug use and health: Methodological summary and definitions*. Rockville, MD: Substance Abuse and Mental Health Services Administration. Centers for Disease Control and Prevention. (2013). HIV among youth in the US. <https://www.cdc.gov/vitalsigns/hivamongyouth/index.html>
- Ciesla, J. A., & Roberts, J. E. (2001.). Meta-analysis of the relationship between HIV infection and risk for depressive disorders. *The American Journal of Psychiatry*, 158, 725–730. <https://doi.org/10.1176/appi.ajp.158.5.725>
- Chantaratin S., Trimetha, K., Werarak, P., Lapphra, K., Maleesatharn, A., Rungmaitree, S., Wittawatmongkol, O., Phongsamart, W., Kongstan, N., Khumcha, B., & Chokeyhaibulkit, K. (2022). Depression and anxiety in youth and young adults living with HIV: Frequency and associated factors in Thai setting. *Journal of the International Association of Providers of AIDS Care*, 21 (1-12). <https://doi.org/10.1177%2F23259582221101811>
- Cournos, F., Walnber, M., & Horwath, E. (2005). *Psychiatric care and anti-retrovirals for second level care*. Mental Health and HIV/AIDS Series. Geneva: World Health Organization.
- Dejman, M., Ardakani, H., Malekafzali, B., Moradi, G., Gouya, M., Shushtari, J...Mohraz, M. (2015). Psychological, social, and familial problems of people living with HIV/AIDS in Iran: a qualitative study. *International Journal of Preventive Medicine*. 6 (126). <https://doi.org/10.4103/2008-7802.172540>.
- Department of Health. (2022). HIV/AIDS and Art Registry of the Philippines. [https://doh.gov.ph/sites/default/files/statistics/EB\\_HARP\\_June\\_AIDSreg2022.pdf](https://doh.gov.ph/sites/default/files/statistics/EB_HARP_June_AIDSreg2022.pdf)
- Dorrell, J., Earle, S., Katz, J., & Reveley, S. (2008). *Growing up with HIV: The experiences of young people living with HIV since birth in the UK*. Sage Publications.
- Dow D. E., Mmbaga, B. T., Gallis, J. A., Turner, E. L., Gandhi, M., Cunningham, C. K., & O'Donnell, K. E. (2020.). A group-based mental health intervention for young people living with HIV in Tanzania: Results of

- a pilot individually randomized group treatment trial. *BMC Public Health*, 20(1358). <https://doi.org/10.1186/s12889-020-09380-3>
- Duko, B., Ayalew, M., & Ayano, G. (2019). The prevalence of alcohol use disorders among people living with HIV/AIDS: a systematic review and meta-analysis. *Substance Abuse Treatment Prevention Policy*, 14(1). <https://doi.org/10.1186/s13011-019-0240-3>.
- Elsayed, H., O'Connor, C., Leyritana, K., Salvana, E., & Cox, S. E. (2021). Depression, nutrition, and adherence to antiretroviral therapy in men who have sex with men in Manila, Philippines. *Frontiers in Public Health*, 9(644438). <https://doi.org/10.3389/fpubh.2021.644438>
- Fawzi, M., Ng, L., Kanyanganzi, F., Kirk, C., Bizimana, J., Cyamatare, F., Mushashi, C., Kim, T., Kayiteshonga, Y., Binagwaho, A., & Betancourt, T. S. (2016). Mental health and antiretroviral adherence among youth living with HIV in Rwanda. *Pediatrics*, 138(4). <https://doi.org/10.1542/peds.2015-3235>
- Frontline AIDS Organization. (2020). *Supporting mental health of adolescents living with or affected by HIV*. <https://frontlineaids.org/resources/supporting-mental-health-of-adolescents-living-with-or-affected-by-hiv/>
- Gennaro, F., Marotta, C., Saracino, A., Occa, E., & Putoto, G. (2022). Mental health needs of adolescents with HIV in Africa. *Correspondence*, 9 (6). [https://doi.org/10.1016/S2352-3018\(22\)00130-8](https://doi.org/10.1016/S2352-3018(22)00130-8)
- Genz, S. G., Romano, I. C., Arias, R. M., Zeng, C., & Casares, M. R. (2018). Mental health among adolescents living with HIV in Namibia: The role of poverty, orphanhood and social support. *AIDS Care*, 30(2), 83-91. <https://doi.org/10.1080/09540121.2018.1469727>
- Girma, D., Assegid, S., & Gezahegn, Y. (2021) Depression and associated factors among HIV-positive youths attending antiretroviral therapy clinics in Jimma town, southwest Ethiopia. *PLoS ONE* 16(1). <https://doi.org/10.1371/journal.pone.0244879>
- Grainger, C. (2017). Understanding disclosure behaviors in HIV-positive young people. *Journal of Infection Prevention*, 18 (1). 35-39. <https://doi.org/10.1177/1757177416680871>.
- Heubeck, B. G., & Neill, J. T. (2000). Internal validity and reliability of the 30 item Mental Health Inventory for Australian Adolescents. *Psychological Reports*, 87, 431-440.
- Ivancova, N.V., Creswell, J.W., & Stick, S.L. (2006). Using mixed-methods sequential explanatory design: From theory to practice. *Field Methods*, 18 (1), 3-20. <http://dx.doi.org/10.1177/1525822X05282260>.
- Jena, P. P. (2014). Exploring the lived experiences of adolescents living vertically acquired HIV. (Unpublished doctoral dissertation, University of South Africa).
- Kalichman, S., Heckman, T., Kochman, A., Sikkema, K., & Bergholte, J. (2000). Depression and thoughts of suicide among middle-aged and older persons living with HIV-AIDS. *Psychiatric Services*, 51 (7). <https://dx.doi.org/10.1176/appi.ps.51.7.903>.
- Kamau, J.W., Kuria, W., Mathai, M., Atwoli, L., & Kangethe, R. (2012). Psychiatric morbidity among HIV- infected children and adolescents in a resource- poor Kenyan urban community. *AIDS Care*, 24 (7). <https://dx.doi.org/10.1080/09540121.2011.644234>.

- Kim, M., Mazenga, A., Yu, X., Devandra, A., Nguyen, C., Ahmed, S., Kazembe, P., & Sharp, C. (2015). Factors associated with depression among adolescents living with HIV in Malawi. *BioMedCentral Psychiatry*, *15* (264), <https://doi.org/10.1186/s12888-015-0649-9>.
- Kimera, E., Vindevogel, S., Kintu, M., Rubaihayo, J., De Maeyer, J., Reynaert, D., Engelen, A., Nuwaha, F., & Bilsen, J. (2020). *BMC Public Health*, *20* (79). <https://doi.org/10.1186/s12889-020-8198-7>.
- Leserman, J. 2008. Role of depression, stress, and trauma in HIV disease progression. *Psychosomatic Medicine* *70*(5): 539-45. <https://doi.org/10.1097/PSY.0b013e3181777a5f>.
- Mellins, C. A., & Malee, K. M. (2013). Understanding the mental health of youth living with perinatal HIV infection: Lessons learned and current challenges. *Journal of the International AIDS Society*, *16*(1). <https://doi.org/10.7448/IAS.16.1.18593>
- Newman, P., Prabhu, S., Akkakanjanasupar, P. & Tepjan, S. (2021). HIV and mental health among young people in low-resource contexts in Southeast Asia: A qualitative investigation. *Global Public Health: An International Journal for Research, Policy, and Practice*, *17* (7), 1200-1214. <https://doi.org/10.1080/17441692.2021.1924822>
- Njau, T., Ngakongwa, F., Sunguya, B., Kaaya, S., & Fekadu, A. (2022). Development of a psychological intervention to improve depressive symptoms and enhance adherence to antiretroviral therapy among adolescents and young people living with HIV in Dar es Salaam Tanzania. *Healthcare* *2022*, *10* (12). 1-15. <https://doi.org/10.3390/healthcare10122491>
- Pokhrel, K. N., Pokhrel, K. G., Sharma, V. D., Poudel, K. C., Neupane, S. R., Mlunde, L. B., & Jimba, M. (2019, August). Mental health disorders and substance use among people living with HIV in Nepal: Their influence on non-adherence to anti-retroviral therapy. *AIDS Care*, *31*(8), 923-931 <http://doi.org/10.1080/09540121.2019.1587365>.
- Reynolds, W.M. (1991). *Adult Suicidal Ideation Questionnaire professional manual*. Odessa, FL: Psychological Assessment Resources, Inc.
- Tsegay, L., & Ayano, G. (2020). The prevalence of suicidal ideation and attempt among young people with HIV/AIDS: A systematic review and meta-analysis. *Psychiatric Quarterly*, *91*, 291-1304. <https://doi.org/10.1007/s11126-020-09851-1>
- Toska, E., Cluver, L., Orkin, M., Bains, A., Sherr, L., Berezin, M., & Gulaid, L. (2019). Screening and supporting through schools: educational experiences and needs of adolescents living with HIV in a South African cohort. *BMC Public Health*, *19* (272). <https://doi.org/10.1186/s12889-019-6580-0>
- UNAIDS. (2018). *Better integration of mental health and HIV services needed*. <https://www.unaids.org/en/resources/presscentre/featurestories/2018/october/mental-health-and-hiv-services>.
- UNAIDS. (2010). Young people most at risk of HIV. <https://www.hivpolicy.org/Library/HPP001861.pdf>
- UNICEF. (2021). HIV and AIDS in adolescents. <https://data.unicef.org/topic/adolescents/hiv-aids/>

- University Research Co. (2021). *Mental health on the move in the Philippines – Meet the lusog-isip app*. <https://www.urc-chs.com/news/mental-health-on-the-move-in-the-philippines-meet-the-lusog-isip-app/>
- U.S. Department of Health and Human Services. (2017). *HIV and mental health*. <https://aidsinfo.nih.gov/understanding-hiv-aids/fact-sheets/27/92/hiv-and-mental-health>
- U.S. Department of Health and Human Services. (2020). *HIV and mental health*. <https://aidsinfo.nih.gov/understanding-hiv-aids/fact-sheets/27/92/hiv-and-mental-health>.
- Veit, C. T., & Ware, J. E. (1983). The structure of psychological distress and well-being in general populations. *Journal of Consulting and Clinical Psychology, 51*(5), 730-742. <http://dx.doi.org/10.1037/0022-006X.51.5.730>.
- Wallach, I., & Brotman, S. (2012). Ageing with HIV/AIDS: a scoping study among people aged 50 and older living in Quebec. *Ageing and Society, 33* (7), 1212-1242. <https://doi.org/10.1017/S0144686X12000529>.
- Wang, W., Xiao, C., Yao, X., Yang, Y., Yan, H., & Li, S. (2018). Psychosocial and suicidal ideation among people living with HIV/AIDS: A cross-sectional study in Nanjing, China. *Plos One, 13* (2). R <https://doi.org/10.1371/journal.pone.0192940>.
- Wonde, M., Mulat, H., Birhanu, A., Biru, A., Kassew, T., & Shumet, S. (2019.) The magnitude of suicidal ideation, attempts and associated factors of HIV positive youth attending ART follow ups at St. Paul's hospital Millennium Medical College and St. Peter's specialized hospital, Addis Ababa, Ethiopia, 2018. *PLoS ONE 14*(11). <https://doi.org/10.1371/journal.pone.0224371>
- World Health Organization. (2022). HIV/AIDS. <https://www.who.int/data/gho/data/themes/hiv-aids>
- World Health Organization (WHO). (2018). HIV and youth. [http://www.who.int/maternal\\_child\\_adolescent/topics/adolescence/hiv/en/](http://www.who.int/maternal_child_adolescent/topics/adolescence/hiv/en/)
- Youth Stop Aids (n.d.). We conducted research into mental health and young people living with HIV globally. This is what they told us. <https://youthstopaids.org/mental-health/>