

# Relationship Between Quality of Life and Symptom Burden in Patients With Cancer With and Without HIV in Botswana

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Cancer is an emerging public health concern in sub-Saharan Africa. In Botswana, the most prevalent cancers are HIV related. The symptom burden that results from cancer and HIV infection is associated with poorer quality of life (QOL). This cross-sectional study examined the relationship between symptom burden and QOL in adult patients with cancer with or without HIV in Botswana. No statistically significant differences were observed in symptom burden and QOL between study participants with or without HIV. Symptom burden was the strongest predictor of QOL in the cohort.

## AT A GLANCE

- With medication adherence and good management of HIV symptoms, symptom burden did not significantly differ between groups.
- Routine monitoring for cancer-related symptoms and antiretroviral medication adherence in HIV-positive patients with cancer may minimize symptom burden and improve QOL.
- Oncology nurses can use symptom assessment instruments to improve outcomes via early identification and management of symptoms, particularly in patients with advanced-stage cancer.

## KEYWORDS

HIV infection; symptom burden; quality of life; cancer; Botswana

## DIGITAL OBJECT IDENTIFIER

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Cancers linked to lifestyle factors are on the rise in Botswana, a landlocked country in southern Africa of about 2.4 million people (Parkin et al., 2018). In sub-Saharan Africa, cancer cases are estimated to double by 2040. Cancers associated with infections are also steadily rising (Haacker et al., 2019).

HIV has contributed to the increased incidence of cancer in Botswana. In Botswana, HIV/AIDS-related cancers like Kaposi sarcoma (27.5% of cancers in men) and cervical cancer (27.1% of cancers in women) are among the most prevalent (Parkin et al., 2018). The Joint United Nations Programme on HIV/AIDS (UNAIDS, 2022) reports that 370,000 people had HIV/AIDS in Botswana in 2020. The prevalence of HIV in adults was estimated at 19.9%, ranking Botswana among the top four countries in the world most affected by HIV/AIDS behind South Africa, Eswatini, and Lesotho (UNAIDS, 2022).

At the end of 2019, 92% of people living with HIV in Botswana knew their disease status. Of these, 89% were receiving antiretroviral therapy (ART), and more than 95% were undergoing treatment for HIV and were virally suppressed (UNAIDS, 2020). Between 2015 and 2020, there were 5,253 new cases of cancer in Botswana, with 59.7% ( $n = 3,137$ ) among women (Ferlay et al., 2021).

More people in Botswana are living with HIV and may face impairments to their quality of life (QOL) (Mahale et al., 2018). QOL is a multifaceted assessment of the living conditions of an individual and what they view as their sense of well-being, which encompasses physical, psychological, social, and spiritual aspects (Haas, 1999). Studies suggest that high-level symptom burden predicts poor QOL, functional status, and survival (Abegaz et al., 2018; Araya et al., 2020; Hamer et al., 2017; Lage et al., 2020). However, no studies have described the differences in QOL in patients with cancer with and without HIV in Botswana. The purpose of this study was to examine the relationship between symptom burden and QOL in adult patients with cancer in Botswana, with an exploratory focus comparing QOL and symptom burden in patients with and without HIV.

## Methods

### Design, Setting, and Ethics

This cross-sectional study was conducted from December 2017 to March 2018 at Princess Marina Hospital (PMH) in Gaborone, the capital city of