

Use of Psychotropic Medications Among Cancer Patients at Sultan Qaboos Comprehensive Cancer Care and Research Centre: A Retrospective Cross-Sectional Study

Mohammed AL-Azzawi¹, Amal Al-Fahdi², Moon Fai Chan¹, Hana ALSumri¹,
Hiba Al-Wahabi², Rafiaa Al Mamari² and Mohammed Al-Azri^{1*}

¹Department of Family Medicine and Public Health, College of Medicine and Health Sciences, Sultan Qaboos University, Muscat, Oman

²Sultan Qaboos Comprehensive Cancer Care and Research Centre, The University Medical City, Muscat, Oman

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*Corresponding author: mhalazri@squ.edu.om

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Abstract

Objectives: Cancer remains a major global health concern and a leading cause of mortality. In Oman, the rising incidence of cancer is accompanied by substantial psychological morbidity, including depression, anxiety, and insomnia, which significantly impacts patients' overall well-being. This study aimed to assess the prevalence of psychotropic medication use for managing psychological distress among cancer patients and to identify associated demographic and clinical factors.

Methods: A retrospective review of medical records was conducted from July 2021 to November 2023 at the Sultan Qaboos Comprehensive Cancer Care and Research Center, a specialized multidisciplinary oncology center in Muscat Governorate, Oman. Descriptive statistics and regression analyses were used to examine patterns of psychotropic medication use and their associations with demographic and clinical variables.

Results: Of the 4,317 cancer patients admitted during the study period, 1,467 (34.0%) were prescribed psychotropic medications. A random sample of 266 patients (18.1%) was selected from those who already receive the psychotropic medication for detailed analysis. The mean age of the sample was 58.1 years and the majority were female (77.3%), of Omani nationality (95.5%), married (75.2%), and unemployed (66.0%). Most patients were diagnosed at stage IV (48.4%). The most common cancer type was breast cancer (47.7%), followed by colon cancer (11.7%). Stomach cancer, prostate cancer, and sarcoma were third most common, each accounting for 4.5% of cases. A positive association was found between cancer stage and the number of psychotropic medications prescribed ($p < 0.001$). Specific medications, including quetiapine, duloxetine, olanzapine, and clonazepam, were significantly associated with particular clinical indications such as anxiety, delirium, insomnia, and pain management.

Conclusions: This study identified a high prevalence of psychotropic medication use among cancer patients in Oman, particularly among those with advanced-stage disease and certain cancer types. These findings underscore the need for tailored psychiatric interventions, enhanced clinician training, and the integration of mental health services into oncology care to better address the complex psychological needs of cancer patients.

Keywords: Cancer; Psychotropic Drugs; Prescriptions; Psychological Distress; Retrospective Studies; Oman.

Introduction

Cancer remains a significant global public health concern and is one of the leading causes of mortality worldwide.¹ Its incidence continues to rise annually, with approximately 19.3 million new cases diagnosed and nearly 10 million cancer-related deaths reported in 2020 alone.² In Oman, the number of newly diagnosed cancer patients increased from 787 in 1996 to 2,198 in 2020, reflecting an increase of approximately 36%.^{3,4} Of the total cases recorded in 2020, 1,994 (90.7%) were among Omanis, of which 930 (44.57%) were male and 1,064 (55.43%) were female, with crude incidence rates of 68.3 and 79.4 per 100,000, respectively.⁴ The most commonly diagnosed type of cancer was breast cancer, followed by thyroid cancer, colorectal cancer, non-Hodgkin lymphoma, leukemia, brain cancer, stomach cancer, prostate cancer, respiratory cancers, and skin cancers.⁴ As in many other countries, studies from Oman indicate that cancer is often diagnosed at advanced stages, leading to poor prognosis and lower survival rates.^{5,6}

Cancer patients frequently experience various forms of psychological distress, including depression, anxiety, and insomnia, as a result of both the disease itself and its associated treatments.⁷ The prevalence of depression and anxiety symptoms among cancer patients is estimated to be up to three times higher than in the general population and can occur at any stage of the disease.⁸ However, the reported incidence of major depression in cancer patients varies widely from 6–42%.⁹ This variation may be due to multiple contributing factors, such as the presence of pain and reduced physical functioning, both of which increase the likelihood of developing major depression and anxiety.¹⁰ Nonetheless, these conditions remain underdiagnosed and undertreated in cancer patients, negatively affecting quality of life and contributing to poorer clinical outcomes, including increased mortality.¹⁰

Insomnia is another common symptom among cancer patients, with a higher prevalence compared to the general population. Approximately 42.8% of cancer patients experience insomnia, of whom 31.9% suffer from severe forms, and 58.8% report significant sleep disturbances.¹¹ Insomnia in this population often co-occurs with pain, nausea, and emotional distress, further compounding its effect.¹² Additionally, the emotional distress associated with a cancer diagnosis and the start of treatment has been linked to some of the highest reported levels of insomnia symptoms.¹³ Consequences of insomnia in cancer patients include increased risk of infection due to weakened immune system function as well as persistent symptoms following chemotherapy, such as fatigue, cognitive impairment, and neuropathy. Insomnia can also impair recovery from depression and anxiety, ultimately reducing quality of life and overall well-being.¹⁴ Given its high prevalence and impact, it is essential for healthcare providers to routinely assess sleep quality in cancer patients and implement appropriate interventions to manage insomnia and related symptoms.

Psychotropic medications, including antidepressants, anxiolytics, and antipsychotics, are commonly prescribed to alleviate psychological distress and insomnia in cancer patients, with the goal of enhancing their quality of life.¹⁵ The use of these medications is often tailored to address specific psychiatric disorders or symptoms related to cancer, such as depression, anxiety, sleep disturbances, or to support symptom control in pain management and chemotherapy-induced nausea.¹⁶ While these medications can be beneficial in managing psychological symptoms, their use also carries potential risks, including interactions with anticancer agents and the need to consider their additive benefit alongside psychosocial interventions.¹⁷

Despite a growing body of literature on psychiatric medication use in cancer patients, significant knowledge gaps remain, particularly in the context of Oman and the broader Gulf region. Most existing research has focused on populations in Western countries or parts of Asia, leaving limited data regarding the use and patterns of psychiatric medications among cancer patients in Arab nations. Furthermore, little is known about the prevalence of psychiatric medication use in this region, or the demographic and clinical factors associated with their prescription. Such data are crucial for tailoring mental health interventions to the specific needs of cancer patients in this setting. As such, the aim of this study was to determine the prevalence of psychotropic medication use among Omani cancer patients and to identify associated demographic and clinical factors.

Methods

This retrospective, cross-sectional study was conducted at the Sultan Qaboos Comprehensive Cancer Care and Research Center (SQCCCRC), a specialized government-operated oncology center established in July 2021 in

Muscat, the capital of Oman. The center provides comprehensive treatment and supportive care to cancer patients and their families referred from across Oman, including holistic services such as psychological and social support. In addition to its clinical functions, SQCCRC also serves as a training and educational resource for oncology trainees and conducts specialized research in the field of cancer care.

For the purposes of this study, the required sample size was calculated using EpiTools online software (Ausvet, Fremantle, Australia), Based on prevalence data from a large study with estimated prevalence of 18.5% and a margin of error of $\pm 4.7\%$ and a 95% confidence level, the sample size calculated to be 263.¹⁸

A retrospective review of medical records was conducted for all cancer patients registered at SQCCRC from 1st July 2021 to 30th November 2023. The review aimed to identify trends and factors associated with the use of psychiatric medications during cancer treatment. The study included adult patients aged 18 years and older who had been diagnosed with any type of cancer and were receiving treatment at SQCCRC during the study period. To meet the required sample size, patients who had received psychotropic medications were identified through a computer-generated list, from which a simple random sample of 263 from the eligible patients who are taken psychotropic medications was selected for analysis. Data for these patients were extracted exclusively from their medical records. Collected data included demographic variables (age, gender, marital status, education level, and household income) and cancer-related information (type, stage, and date of diagnosis). Additional data were collected on the patients' psychiatric histories, comorbidities, treatment progress, and the classification, use, and clinical indications for the prescription of psychotropic medications.

Data analysis was performed using the Statistical Package for the Social Sciences (SPSS), version 26 (IBM Corp., Armonk, New York, USA). Descriptive statistics were used to summarize demographic characteristics, clinical variables, and the prevalence of psychotropic drug use. Usage patterns were evaluated across demographic and clinical subgroups. Chi-square and Kruskal-Wallis tests were conducted to assess associations between psychotropic medication use and variables such as age, gender, cancer type, cancer stage. The number of psychotropic medications prescribed was categorized into three groups: fewer than three, three to five, and more than five medications (<3, 3–5, and >5) based on commonly used thresholds for polypharmacy, where the use of five or more medications is considered indicative of polypharmacy.¹⁹

Sixteen psychotropic medications were recorded to be used in this study. Logistic regression analyses were conducted to identify factors associated with the use of each specific psychotropic medication (yes vs. no), including their associations with specific 5 clinical indications (depression, anxiety, insomnia, Delirium, and Pain management). Results were reported as odds ratios (ORs) with 95% CIs. Statistical significance was set at $p < 0.05$. Ethical approval for this study was granted by the institutional review board and ethics committee of SQCCRC (approval code #CCCRC-40-2023, dated 12th November 2023).

Results

A total of 4,317 cancer patients were admitted to SQCCRC during the study period, of whom 1,467 were prescribed psychotropic drugs, yielding a prevalence rate of 34.0%. Detailed analysis was subsequently conducted on a simple random sample of 266 patients (18.1%) from the patients who are using psychotropic medication. Of these, the majority were female (77.3%) with a mean age of 58.1 ± 13.0 years. Most patients were Omani citizens, accounting for 95.5% of the sample. In terms of education level, 35.3% of patients were unable to read or write, 18.5% had finished primary school, 25.3% had completed high school, and 20.8% had obtained a university degree. A substantial proportion of the sample was unemployed (66.0%) and married (75.2%). The majority reported a moderate household income (65.2%). Additional demographic data are presented in Table 1.

Table 1: Sociodemographic characteristics of patients with cancer (N = 266).

Variable	n (%)
Gender	
Male	63 (23.7)
Female	203 (77.3)
Age	(years)

Mean	±	SD	58.1 ± 13.0
Median [range]			58.5 [68.0]
Nationality			
Omani			254 (95.5)
Other			12 (4.5)
Education level*			
Illiterate			88 (35.3)
Primary	school		46 (18.5)
High	school		63 (25.3)
University			52 (20.9)
Employment status*			
Unemployed			165 (66.0)
Employed			40 (16.0)
Retired			45 (18.0)
Marital status*			
Single			11 (4.3)
Married			191 (75.2)
Divorced			13 (5.1)
Widowed			39 (15.4)
Household income***			
Low			60 (33.7)
Moderate			116 (65.2)
High			2 (1.1)

*SD: standard deviation. *Percentages for these variables were calculated out of the total number of complete responses due to missing data. **Household income was divided into low (less than 500 OMR/month), moderate (500 to 1,500 OMR/month) and high (more than 1,500 OMR/month)*

Table 2 displays the distribution of cancer stages and types within the sample. Nearly half of the patients (48.4%) were diagnosed at stage IV, followed by stage II (25.6%), stage III (16.2%), stage I (8.3%), and stage 0 (1.5%). Among the various types of cancer reported, breast cancer was the most common diagnosis (47.7%), followed by colon cancer (11.7%). Stomach, prostate, and sarcoma cancers each accounted for 4.5% of cases, representing the third most common diagnoses. A wide range of less common cancers was also documented, reflecting the diversity of patients treated at SQCCRC.

Table 2: Clinical characteristics of patients with cancer (N = 266).

Variable	n (%)
Stage of cancer	
0	4 (1.5)
I	22 (8.3)
II	68 (25.6)
III	43 (16.2)
IV	129 (48.4)
Type of cancer*	
Breast	127 (47.7)
Colon	31 (11.7)
Prostate	12 (4.5)
Sarcoma	12 (4.5)
Stomach	12 (4.5)
Pelvic	11 (4.1)
Thyroid	11 (4.1)
Colorectal	7 (2.6)
Head and neck	6 (2.3)
Kidney	6 (2.3)
Ovarian	6 (2.3)
Bile duct	5 (1.9)

Brain		4 (1.5)
Endometrial		4 (1.5)
Liver		4 (1.5)
Lung		3 (1.1)
Pancreatic		2 (0.8)
Ampullary		1 (0.4)
Cervical		1 (0.4)
Esophageal		1 (0.4)
Gallbladder		1 (0.4)
Pheochromocytoma		1 (0.4)
Skin		1 (0.4)
Unknown	primary	1 (0.4)
Urethral		1 (0.4)
Vaginal		1 (0.4)

*Percentages for this variable may not add up to 100% as some patients had more than one type of cancer.

Associations between the number of psychotropic medications prescribed and selected sociodemographic and clinical characteristics were examined using Chi-square and Kruskal-Wallis tests, as shown in Table 3. No significant associations were found with any sociodemographic variables. In addition, a strong association was also found between the number of psychiatric medications prescribed and cancer stage ($\chi^2 = 36.076$, $df = 8$, $p < 0.001$). In contrast, specific clinical indications had no substantial impact on the number of medications prescribed.

Table 3: Associations between number of psychotropic drugs prescribed[#] and selected sociodemographic and clinical characteristics among patients with cancer (N = 266).

Variable	χ^2	df	p value
Sociodemographic factors			
Gender	2.177	2	0.337
Age	0.242 [^]	2	0.886
Nationality	1.441	2	0.486
Education	7.593	4	0.108
Employment	2.317	4	0.678
Marital	2.926	4	0.570
Household income	6.110	4	0.191
Stage of cancer	36.076	8	<0.001*
Indication for medication			
Depression	3.928	2	0.140
Anxiety	1.326	2	0.515
Insomnia	1.007	2	0.604
Delirium	1.483	2	0.476
Pain management	5.178	2	0.075
Type of cancer			
Breast	5.028	2	0.081
Colon	1.059	2	0.589
Prostate	0.073	2	0.964
Sarcoma	3.036	2	0.219
Stomach	0.649	2	0.723
Pelvic	1.064	2	0.588
Thyroid	2.097	2	0.350
Colorectal	0.522	2	0.770
Head and neck	1.483	2	0.476
Kidney	1.931	2	0.381
Ovarian	4.781	2	0.092
Bile duct	1.003	2	0.606
Brain	0.879	2	0.644
Endometrial	0.378	2	0.828

Liver		0.879	2	0.644
Lung		0.954	2	0.621
Pancreatic		6.380	2	0.041*
Ampullary		0.890	2	0.641
Cervical		0.890	2	0.641
Esophageal		1.492	2	0.474
Gallbladder		1.492	2	0.474
Pheochromocytoma		1.492	2	0.474
Skin		0.890	2	0.641
Unknown	primary	13.830	2	0.001*
Urethral		1.492	2	0.474
Vaginal		13.830	2	0.001*

df: degrees of freedom; ^, Kruskal-Wallis test; #Psychotropic medication use was divided into the following categories: fewer than 3 medications, 3–5 medications, and more than 5 medications. *Statistically significant at $p < 0.05$.

Table 4 displays the results of the logistic regression analysis examining associations between specific psychotropic medications and five clinical indications: depression, anxiety, insomnia, delirium, and pain management. Quetiapine was found to be significantly associated with anxiety (OR: 8.990, 95% CI: 2.477–32.626; $p = 0.001$), but not with depression, insomnia, delirium, or pain management. Duloxetine was significantly associated with three clinical indications: anxiety (OR: 3.132, 95% CI: 1.101–8.908; $p = 0.032$), delirium (OR: 18.972, 95% CI: 2.284–157.560; $p = 0.006$), and pain management (OR: 8.119, 95% CI: 1.509–43.854; $p = 0.015$). Olanzapine showed a significant association with both delirium (OR: 8.582, 95% CI: 1.406–52.404; $p = 0.020$) and insomnia (OR: 2.727, 95% CI: 1.117–6.659; $p = 0.028$). Finally, clonazepam was significantly associated with pain management (OR: 0.114, 95% CI: 0.014–0.923; $p = 0.042$), but not with other indications such as depression, anxiety, insomnia, and delirium. None of the remaining medications examined were significantly associated with any of the five clinical indications.

Table 4: Logistic regression analysis of sp416 psychotropic medication use[^] according to clinical indication.

Medication	Depression		Anxiety		Insomnia		Delirium		Pain management	
	OR (95% CI)	p value	OR (95% CI)	p value	OR (95% CI)	p value	OR (95% CI)	p value	OR (95% CI)	p value
Sertraline	0.616 (0.064–5.945)	0.675	1.137 (0.163–7.910)	0.897	0.893 (0.165–4.815)	0.895	0.000 (0.000–0.999)	0.999	0.436 (0.067–2.852)	0.386
Risperidone	0.000 (0.000–0.999)	0.998	2.883 (0.374–22.246)	0.310	1.281 (0.206–7.974)	0.791	0.000 (0.000–0.999)	0.999	0.966 (0.083–11.275)	0.978
Quetiapine	0.203 [0.023–1.788)	0.151	8.990 (2.477–32.626)	0.001*	0.711 (0.186–2.720)	0.618	2.910 (0.223–37.940)	0.415	2.220 (0.403–12.245)	0.360
Escitalopram	0.667 (0.122–3.633)	0.639	2.648 (0.634–11.065)	0.182	1.695 (0.485–5.925)	0.409	0.000 (0.000–0.000)	0.999	0.701 (0.150–3.289)	0.653
Duloxetine	1.073 (0.338–3.409)	0.905	3.132 (1.101–8.908)	0.032*	0.603 (0.231–1.574)	0.301	18.972 (2.284–157.560)	0.006*	8.319 (1.509–45.854)	0.015*
Olanzapine	0.127 (0.016–1.044)	0.055	1.554 (0.507–4.763)	0.440	2.727 (1.117–6.659)	0.028**	8.582 (1.406–52.404)	0.020*	0.798 (0.231–2.759)	0.722
Gabapentin	3.240 (0.690–15.222)	0.136	0.799 (0.130–4.918)	0.809	0.757 (0.145–3.959)	0.742	3.983 (0.397–40.004)	0.240	0.815 (0.142–4.679)	0.818
Clonazepam	0.000 (0.000–0.000)	0.998	0.706 (0.047–10.534)	0.801	0.000 (0.000–0.000)	0.997	0.000 (0.000–0.999)	0.999	0.114 (0.014–0.923)	0.042*
Haloperidol	0.756 (0.186–3.083)	0.697	2.160 (0.646–7.226)	0.211	0.383 (0.101–1.459)	0.160	1.465 (0.154–13.925)	0.740	0.537 (0.156–1.847)	0.324
Mirtazapine	0.131 (0.016–1.107)	0.062	0.660 (0.184–2.371)	0.525	1.882 (0.753–4.704)	0.176	0.000 (0.000–0.999)	0.999	0.297 (0.088–1.005)	0.051
Diazepam	1.238 (0.202–7.592)	0.818	1.976 (0.341–11.448)	0.447	0.256 (0.028–2.318)	0.226	0.000 (0.000–0.999)	0.999	0.323 (0.058–1.790)	0.196
Lorazepam	0.681 (0.169–2.733)	0.587	1.135 (0.325–3.960)	0.843	0.323 (0.089–1.176)	0.087	0.000 (0.000–0.999)	0.999	0.506 (0.146–1.752)	0.282
Venlafaxine	0.749 (0.074–7.606)	0.807	2.635 (0.429–16.206)	0.296	0.268 (0.030–2.399)	0.239	0.000 (0.000–0.999)	0.999	0.000 (0.000–0.999)	0.998
Pregabalin	0.885 (0.351–2.227)	0.795	0.733 (0.308–1.745)	0.483	0.760 (0.369–1.565)	0.457	0.717 (0.126–4.071)	0.707	0.850 (0.324–2.228)	0.740
Amitriptyline	0.503 (0.130–1.952)	0.320	0.938 (0.297–2.965)	0.913	0.883 (0.342–2.280)	0.798	0.000 (0.000–0.999)	0.999	0.470 (0.149–1.479)	0.197
Procyclidine	0.000 (0.000–0.000)	0.998	0.000 (0.000–0.000)	0.998	0.000 (0.000–0.999)	0.998	0.000 (0.000–0.999)	0.999	0.000 (0.000–0.999)	0.998

OR: odds ratio; CI: confidence interval. [^]Psychotropic medication use was divided into yes/no categories. *Statistically significant at $p < 0.05$.

Discussion

Findings from this study indicate a 34.0% prevalence rate of psychotropic medication use among cancer patients in Oman, emphasizing the importance of addressing mental health alongside physical illness in oncology care. When compared to international data, this rate reflects regional variation, likely influenced by differences in healthcare systems and cultural beliefs. For example, a study in Japan reported a prevalence rate of 45%, while in China, the rate was notably lower at 18.5%.^{18,20} In contrast, in Spain, the prevalence of psychotropic drug prescriptions among terminally ill cancer patients ranged from 82.2–90.2%.²¹

The comparatively low prevalence rate observed in these Chinese study may be due to barriers such as limited access to mental health services in general hospitals, insufficient psychiatric training among non-specialist physicians, financial burdens, and cultural stigma surrounding mental illness and medication use.¹⁸ Conversely, the Japanese study aligns more closely with our findings, likely due to its focus on eight specific types of cancer.¹⁹ The narrower scope may have allowed for more targeted identification and treatment of psychiatric symptoms, leading to increased medication use within that subgroup.

The higher prevalence rate reported in Spain likely reflects the study's focus on patients with advanced cancer, a group known to experience more severe psychological symptoms and a greater need for psychiatric intervention.²¹ In Oman, cultural and religious views, alongside widespread misconceptions about psychotropic medications, may contribute to a comparatively lower prevalence. A previous study found that 64% of Omani cancer patients expressed concerns about addiction to pain medications, while 67% feared developing a tolerance.²¹ Such fears, rooted in cultural beliefs, likely extend to psychotropic medications, potentially resulting in underutilization despite the evident mental health needs of cancer patients. These cultural factors underscore the importance of implementing culturally sensitive approaches to improve access to and acceptance of mental health care services among cancer patients in Oman.

In the present study, no significant associations were found between sociodemographic variables and psychotropic drug use. This contrasts with findings from other settings, where such use has been associated with gender, employment status, surgical intervention, treatment duration, and the presence of chronic physical or mental comorbidities.^{23,24} The absence of demographic effects seen in our study may reflect a more complex interplay of factors, including clinical, psychosocial, demographic, and cultural elements. Notably, clinical factors such as cancer type and stage were more predictive of psychotropic medication use than sociodemographic variables. This could be due to the application of standardized clinical protocols at SQCCCRC, which emphasize clinical need over demographic characteristics when making treatment decisions. The findings suggest that the severity of disease has a notable impact in determining the extent of psychiatric intervention required. Furthermore, as the vast majority of patients in this study were Omani nationals receiving fully funded treatment, the influence of socioeconomic status on healthcare access may have been minimized. These considerations highlight the need to account for the structure of the healthcare system when interpreting the impact of sociodemographic factors on medication use.

This study also revealed specific associations between certain psychotropic medications and clinical indications. Quetiapine was significantly associated with the treatment of anxiety, aligning with its established use in managing anxiety-related symptoms in various populations. Its role as an adjunctive treatment to selective serotonin reuptake inhibitors has been recognized, particularly in patients with generalized anxiety disorder and post-traumatic stress disorder (PTSD), conditions with symptoms frequently encountered among cancer patients.²⁵ Duloxetine demonstrated significant associations with anxiety, delirium, and pain control. In oncology, duloxetine is widely used to manage emotional symptoms as well as physical complications such as chemotherapy-induced peripheral neuropathy.²⁶ It has shown effectiveness in alleviating anxiety and depressive symptoms, and in reducing pain, thereby indirectly enhancing sleep and overall quality of life.²⁷ Emerging evidence also suggests that duloxetine may relieve hot flashes in patients undergoing hormone therapy for breast or prostate cancer and be effective in managing fibromyalgia-like symptoms or musculoskeletal pain due to cancer treatments or metastasis.^{28,29} When used as adjunct to opioids or non-opioid analgesics, duloxetine can also reduce overall opioid dosage, thereby minimizing related side-effects.²⁹

Olanzapine was significantly associated with the treatment of both delirium and insomnia in cancer patients. This aligns with previous findings highlighting its benefits for sleep architecture, including increased total sleep time, improved sleep efficiency, and reduced sleep latency in individuals diagnosed with depression, irrespective of improvement in depressive symptoms.³⁰ Olanzapine has also shown promise in managing insomnia, particularly in cases of paradoxical insomnia and combat-related PTSD sleep disturbances, underscoring its clinical relevance in addressing the complex neuropsychiatric intense symptoms that frequently accompany cancer and its treatment.³¹ Finally, clonazepam was significantly associated with pain management in this study. Compared to other frequently used pain-relieving agents such as amitriptyline, carbamazepine, and gabapentin, clonazepam offers advantages such as rapidity and ease of dosage titration and the option for subcutaneous administration. These features make it a convenient option for treating neuropathic pain in cancer patients.³²

This study has several limitations. First, although cancer patients attending SQCCCRC are referred from various regions of Oman, the use of convenience sampling and exclusion criteria imposed by the sample size calculation may limit the generalizability of the findings to other settings or populations. Second, we have analyzed a sample of patients selected from the full cohort of patients who are taking psychotropic medications, which may introduce selection bias and limit the generalizability of our findings. Third, the influence of potential confounding factors, such as concurrent use of other drugs like morphine or other potent analgesics, was not determined. These medications may have direct psychological effects or interact psychotropic drugs, make it difficult to interpret the associations observed in this study. For example, the observed associations between specific psychotropic medications and clinical indications (e.g., duloxetine and pain management) may primarily reflect prescribing patterns rather than independent clinical relationships. Third, while this study identified several factors linked to psychotropic medication use, it did not establish causation which restricts the capacity to make definitive conclusions regarding the underlying mechanisms that influence the utilization of psychiatric drugs in cancer care. Future research should aim to include larger and more diverse samples in order to investigate the causal mechanisms and obtain more generalizable insights into the use of psychiatric drugs in cancer care.

Conclusion

This study sought to assess the prevalence and determinants of psychotropic drug use among cancer patients in Oman. The observed prevalence rate of 34.0% underscores the urgent need for the integration of mental health support within oncology care, particularly for patients with advanced-stage cancer and those undergoing chemotherapy. The findings indicate that while most sociodemographic factors were not significantly associated with psychotropic medication use, advanced cancer stage was associated with increased use. This reflects the complex interplay between disease severity and the psychological burden experienced by patients as their illness progresses. In particular, certain psychotropic medications were also found to be significantly associated with specific clinical indications.

These results underscore the importance of tailored psychiatric interventions to address the diverse psychological challenges faced by cancer patients. Furthermore, this study emphasizes the necessity of comprehensive, patient-centered care strategies that address both the medical and psychological dimensions of cancer treatment. It also calls for enhanced training among healthcare practitioners to effectively identify and manage psychological symptoms in this population. Although this research provides valuable insights into the use of psychotropic drugs in cancer care, further large-scale prospective cohort studies involving more representative populations are needed to investigate the long-term effects of these medications and to identify effective approaches for integrating mental health care into oncology practice.

Disclosure

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