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DESCRIPTION OF DEPRESSION IN CAREGIVER OF NASOPHARYNGEAL CANCER PATIENTS TREATED AT PROF. DR. I.G.N.G. NGOERAH HOSPITAL

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ABSTRACT

Background: Caregivers of patients with nasopharyngeal cancer were at risk of psychological burdens, including depression, anxiety, and stress. Long-term caregiving responsibilities, emotional strain, and limited social support could negatively affect their mental health. Evidence on the psychological conditions of caregivers of nasopharyngeal cancer patients in Indonesia remained limited, highlighting the need for descriptive data to support clinical decision-making. **Method:** A descriptive cross-sectional study was conducted, involving 50 caregivers selected using consecutive sampling. Data were collected using demographic questionnaires, the Beck Depression Inventory-II (BDI-II), and the Depression Anxiety Stress Scale (DASS-21). Data were analyzed descriptively using SPSS. **Results:** Most caregivers were middle adults (54% aged 36–55), predominantly male (56%), and mainly spouses or parents of patients. Based on BDI-II, 72% had minimal depression, 12% mild, and 16% moderate. DASS-21 results showed that 78% had normal depression, 10% mild, and 10% moderate; anxiety levels were more varied, with 36% experiencing moderate anxiety, while stress levels remained mostly normal (88%). **Conclusion:** Caregivers of nasopharyngeal cancer patients generally exhibited low levels of depression and stress, although a notable proportion experienced moderate anxiety. These findings highlighted the need for early psychological screening and supportive interventions for caregivers in oncology settings.

Keywords : Caregivers, Depression, Nasopharyngeal cancer

INTRODUCTION

Depression is a serious and complex mental disorder characterized by major depressive episodes lasting at least two weeks. This disorder not only affects individuals emotionally, but also has a broad impact on their cognitive and neurovegetative functions. According to Arias de la Torre, the prevalence of depressive disorders in various populations, including in Europe and China, reaches more than 6%.[1] The World Health Organization (WHO) notes that depression is the fourth leading cause of disability worldwide, highlighting the importance of understanding and treating this disorder in the context of global mental health. It is recorded that 5% of the adult population worldwide experiences depression, with a higher incidence rate of around 50% in women compared to men.[2] This is supported by the increase in the number of depression cases worldwide from 172 million in 1990 to 258 million in 2017, an increase of approximately 49.86%.[3] Meanwhile, in Indonesia, there were 9,162,886 cases of depression in 2023. In Bali alone, the prevalence of depression among the elderly reaches 42.3% and increases with age. Elderly women are more prone to depression, especially those who are married, dependent on assistance for daily activities, and have other health problems.[4]

One group that is often affected by depression is caregivers, especially those who care for patients with serious conditions such as cancer. Caregivers play an influential role in providing emotional and physical support to patients, but this responsibility often causes significant psychological stress. Research shows that caregivers of cancer patients experience much higher rates of anxiety and depression than the general population. This is due to the emotional and physical pressure they face, as well as the sadness that arises from seeing loved ones struggle with illness.[5] Caregiver burden can be defined as the stress or psychological burden experienced by individuals who care for others. It is explained that factors such as insufficient financial circumstances, conflicting responsibilities, and lack of social activities can

worsen the mental condition of caregivers. When caregivers are unable to manage this burden properly, they are at risk of developing depression, which in turn can affect the quality of care they provide to patients.[3] One type of cancer that requires special attention in this issue is nasopharyngeal cancer. This cancer has an increasing prevalence in Indonesia and is often accompanied by complex physical and emotional symptoms for patients and their caregivers.

According to Wedayani et al., nasopharyngeal cancer ranks fourth in the number of new cases in Indonesia, with a significant impact on the quality of life of patients and their caregivers. In the context of this study, it is important to understand the relationship between depression in caregivers and the quality of care they provide to nasopharyngeal cancer patients.[6] Research by Udawiyah et al. shows that depression in caregivers is often caused by the demands of their role and their inability to meet their personal needs.[7] Therefore, this study aims to provide an overview of the level of depression and psychological condition of caregivers of nasopharyngeal cancer patients based on demographic and care characteristics.

LITERATURE REVIEW

Depression is a mental health disorder characterized by mood disturbances, cognitive dysfunction, and neurovegetative activity lasting at least two weeks. Globally, depression is one of the leading causes of disability with a prevalence exceeding 6% and showing an upward trend from year to year.[1,2] Although environmental factors play a role as triggers, individual responses to stress are heterogeneous, meaning that not all individuals exposed to stressors experience depression.[8]

Caregiver groups, especially caregivers of cancer patients, are a population that is vulnerable to depression and other psychological disorders. Caregivers play an important role in providing physical and emotional support during the patient care process, but this long-term responsibility often causes significant psychological stress. Research shows that the prevalence of anxiety and depression among caregivers of cancer patients is higher than in the general population, along with a decline in the quality of life of caregivers.[5]

Caregivers can be classified into informal caregivers and formal caregivers. Informal caregivers are generally family members or close relatives who have no medical training but are responsible for most of the daily care activities. This situation makes informal caregivers more vulnerable to physical exhaustion, emotional stress, and financial problems.[9,10] In contrast, formal caregivers are professionals with specialized training who, despite being more technically competent, are still at risk of work-related stress and burnout.[11,12]

The concept of caregiver burden describes the physical, emotional, social, and economic burdens experienced by caregivers while performing their caregiving roles. The main factors contributing to caregiver burden include financial constraints, role conflicts between work and caregiving, and reduced social interaction. Poorly managed burden can trigger chronic stress and increase the risk of depression in caregivers.[3]

Nasopharyngeal cancer is a malignancy of the nasopharyngeal epithelium that has a high prevalence in Southeast Asia, including Indonesia. This disease ranks fourth among new cancer cases in Indonesia and affects many individuals of productive age.[6] Over the past few years in Indonesia, the incidence of nasopharyngeal cancer has been relatively high, at around 5.6 per 100,000 people or around 15,000 cases each year. Research conducted in Lombok in 2015 found 48 patients with undifferentiated squamous cell carcinoma. Meanwhile, research on nasopharyngeal cancer in Medan showed that the age group with the highest number of cases was between 50 and 59 years old, reaching 29.1%. The youngest patient was 21 years old, while the oldest was 77 years old, with an average age of 48.8 years.[13]

The main risk factors include Epstein-Barr virus infection, genetic factors, as well as environmental exposure and certain consumption patterns.[14] Symptoms that are often nonspecific in the early stages cause many patients to be diagnosed at an advanced stage.

The management of nasopharyngeal cancer involves radiotherapy as the primary therapy, often combined with chemotherapy. The lengthy treatment process, side effects of therapy, and complications of the disease increase patients' dependence on caregivers. This condition increases the physical and emotional demands on caregivers, thereby potentially worsening their psychological condition.[15]

Depression in caregivers of nasopharyngeal cancer patients is influenced by the demands of ongoing care, limited time to meet personal needs, and emotional pressure due to the uncertainty of the patient's prognosis. Previous studies have shown that an imbalance between caregiving demands and caregivers' adaptive abilities plays an important role in the emergence of depression, anxiety, and stress.[7,16] Therefore, understanding the psychological condition of caregivers is important as a basis for developing comprehensive psychosocial interventions.

METHODS

This study is a descriptive study with a cross-sectional design to determine the profile of depression in caregivers at Prof. dr. I.G.N.G. Ngoerah General Hospital. The research instrument used primary data in the form of a paper questionnaire distributed face-to-face to each caregiver of nasopharyngeal cancer patients. The target population in this study was all caregivers of nasopharyngeal cancer patients undergoing treatment at Prof. Dr. I.G.N.G. Ngoerah General Hospital during the study period. This study used consecutive sampling, and the sample consisted of 50 caregivers at the Radiotherapy Unit of Prof. Dr. I.G.N.G. Ngoerah General Hospital who met the study criteria.

The inclusion criteria for this study were primary caregivers of patients diagnosed with nasopharyngeal cancer, aged ≥18 years, and directly involved in the daily care of patients, both physically and emotionally, as well as providing support during treatment. The caregivers who became respondents were those who cared for nasopharyngeal cancer patients undergoing outpatient or inpatient treatment at Prof. dr. I.G.N.G. Ngoerah General Hospital, were able to read and write in Indonesian, and were willing to become research respondents by signing an informed consent form. The exclusion criteria in this study were caregivers who had a history of previously diagnosed severe mental disorders, such as schizophrenia or severe bipolar disorder, as well as caregivers who were undergoing intensive psychiatric treatment or were in a state of severe psychological crisis at the time of data collection. In addition, caregivers who were in an

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unstable physical condition, such as experiencing severe fatigue, severe pain, or acute medical conditions that hindered the questionnaire completion process, were also excluded from this study. Caregivers who did not complete the questionnaire or withdrew as respondents in the middle of the research process were also not included in the data analysis. This study specifically highlights the demographic profile of caregivers (age, gender, education, etc.) as descriptive data, not as risk factors to be tested for correlation. The main focus of the study is to map the level of depression using the Beck Depression Inventory-II (BDI-II) questionnaire and to measure stress and anxiety through the Depression Anxiety Stress Scale-21 (DASS-21).

RESULTS

This study was conducted offline by distributing questionnaires to respondents who met the inclusion criteria, namely caregivers of nasopharyngeal cancer patients at Prof. Dr. I.G.N.G. Ngoerah General Hospital. In this study, there were 50 respondents who completed the questionnaire. Table 1 shows the results of the study, indicating the prevalence and characteristics of the respondents, including age, gender, highest level of education, occupation, economic status, and marital status.

Table 1. Distribution of Respondent Characteristics (Caregivers)

Respondent Characteristics	Categories	Amount (n)	Percentage (%)
Age (years)	Young adult (18-35)	17	34.0
	Middle adult (36-55)	27	54.0
	Older adult (>55)	6	12.0
Sex	Male	28	56.0
	Female	22	44.0
Highest level of education	Elementary school	2	4.0
	Junior High School	2	4.0
	Senior High School	24	48.0
	Diploma	7	14.0
	Bachelor	15	30.0
	Post graduate	0	0
Employment	Unemployed	11	22.0
	Employed	39	78.0
Economic status	High	12	24.0
	Middle	25	50.0
	Low	13	26.0
Marriage status	Unmarried	11	22.0
	Married	35	70.0
	Divorce	4	8.0
Relationship with patient	Husband/ wife	18	36.0
	Parents	12	24.0
	Children	9	18.0
	Sibling	3	6.0
	Other families	6	12.0
	Non-relatives	2	4.0
Long term patient care	<6 months	30	60.0
	6-12 months	14	28.0
	>12 months	6	12.0

Based on Table 1, most caregivers were middle-aged (36–55 years; 54.0%), followed by young adults (18–35 years; 34.0%) and older adults (>55 years; 12.0%), indicating that caregivers were predominantly of productive to early elderly age. Most respondents were employed (78.0%). Regarding economic status, half of the caregivers were in the middle economic category (50.0%), followed by low (26.0%) and high (24.0%) categories. The majority were married (70.0%). In terms of caregiver–patient relationship, caregivers were predominantly spouses (36.0%) and parents (24.0%), followed by children (18.0%), reflecting that caregiving was mainly undertaken by immediate family members. Most caregivers had provided care for less than six months (60.0%), suggesting that the majority were in the early phase of the caregiving period.

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Table 2. Distribution of Nasopharyngeal Cancer Patient Characteristics

Respondent Characteristics	Categories	Amount (n)	Percentage (%)
Age (years)	Young adult	11	22.0
	Middle adult	22	44.0
	Older adult	17	34.0
Sex	Male	10	20.0
	Female	40	40.0
Length of diagnosis	<6 months	26	52.0
	6-12 months	17	34.0
	>12 months	7	14.0

Based on Table 2, most nasopharyngeal cancer patients were middle-aged (36–55 years; 44.0%), followed by older adults (>55 years; 34.0%) and young adults (18–35 years; 22.0%), indicating a predominance of middle-aged to older patients. The majority were female (80.0%). Most patients had been diagnosed for less than six months (52.0%), suggesting that most were still in the early stage of the disease.

Table 3. Frequency Distribution of Depression in Caregivers

Categories	Young Adult		Middle Adult		Older Adult		Total	
	n	%	n	%	n	%	n	%
Minimal	11	64.7	20	74.1	5	83.3	36	72.0
Mild	3	17.6	2	7.4	1	16.7	6	12.0
Moderate	3	17.6	5	18.5	0	0	8	16.0
Severe	0	0	0	0	0	0	0	0
Total	17	100	27	100	6	100	50	100

Note: %: distribution percentage

Based on Table 3, of the total 50 caregivers, the majority were in the minimal depression category, namely 36 people (72.0%). Furthermore, there were 6 people (12.0%) in the mild depression category and 8 people (16.0%) in the moderate depression category, while no caregivers with severe depression were found (0.0%).

When reviewed based on age group, in the young adult group (n=17), most were in the minimal depression category, with 11 people (64.7%), followed by mild depression in 3 people (17.6%) and moderate depression in 3 people (17.6%). No cases of severe depression were found. In the middle-aged group (n=27), the majority were also in the minimal depression category, with 20 people (74.1%), followed by 2 people (7.4%) with mild depression and 5 people (18.5%) with moderate depression, with no cases of severe depression. Meanwhile, in the older adult group (n=6), almost all caregivers were in the minimal depression category, with 5 people (83.3%), and 1 person (16.7%) experienced mild depression, with no moderate or severe depression.

Table 4. Frequency Distribution of Depression in Caregivers

Categories	Young Adult		Middle Adult		Older Adult		Total	
	n	%	n	%	n	%	n	%
Normal	12	70.6	22	81.5	5	83.3	39	78.0
Mild	1	5.9	4	14.8	0	0	5	10.0
Moderate	4	23.5	0	0	1	16.7	5	10.0
Severe	0	0	1	3.7	0	0	1	2.0
Very severe	0	0	0	0	0	0	0	0
Total	17	100	27	100	6	100	50	100

Note: %: distribution percentage

Based on Table 4, of the total 50 caregivers, most were in the normal depression category, namely 39 people (78.0%). Furthermore, there were 5 people (10.0%) in the mild depression and moderate depression categories, respectively, and 1 person (2.0%) who experienced severe depression, while no caregivers with very severe depression (0.0%) were found. These results indicate that, in general, the majority of caregivers have depression levels that are still within normal limits, although there are still a number of caregivers who experience depressive disorders ranging from mild to severe severity.

When reviewed based on age group, in the young adult group (n=17), most caregivers were in the normal depression

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category, with 12 people (70.6%), followed by 1 person (5.9%) with mild depression and 4 people (23.5%) with moderate depression. No cases of severe or very severe depression were found. In the middle-aged group (n=27), the majority of caregivers were also in the normal depression category, with 22 people (81.5%), while 4 people (14.8%) experienced mild depression and 1 person (3.7%) experienced severe depression, with no moderate or very severe depression. Meanwhile, in the older adult group (n=6), almost all caregivers were in the normal depression category (5 people, 83.3%), and 1 person (16.7%) experienced moderate depression, with no cases of mild, severe, or very severe depression found .

Table 5. Frequency Distribution of Anxiety in Caregivers

Categories	Young Adult		Middle Adult		Older Adult		Total	
	n	%	n	%	n	%	n	%
Normal	8	47.1	14	51.9	3	50.0	25	50.0
Mild	3	17.6	1	3.7	0	0	4	8.0
Moderate	4	23.5	11	40.7	3	16.7	18	36.0
Severe	1	5.9	1	3.7	0	0	2	4.0
Very severe	1	5.9	0	0	0	0	1	0
Total	17	100	27	100	6	100	50	100

Note: %: distribution percentage

Based on Table 5, of the total 50 caregivers, half of the respondents were in the normal anxiety category, namely 25 people (50.0%). Meanwhile, 4 people (8.0%) experienced mild anxiety, 18 people (36.0%) were in the moderate anxiety category, 2 people (4.0%) experienced severe anxiety, and 1 person (2.0%) was in the very severe category. These findings indicate that although some caregivers are still within normal limits, the proportion of caregivers experiencing moderate to very severe anxiety is quite large, making anxiety a more prominent psychological problem than depression.

When viewed by age group, in the young adult group (n=17), most were in the normal anxiety category, with 8 people (47.1%), followed by mild anxiety with 3 people (17.6%), moderate anxiety with 4 people (23.5%), and 1 person each (5.9%) in the severe and very severe categories. In the middle-aged group (n=27), the majority of caregivers were also in the normal anxiety category, with 14 people (51.9%), but there were 11 people (40.7%) who experienced moderate anxiety, and 1 person (3.7%) each in the mild and severe categories. Meanwhile, in the elderly group (n=6), the distribution of anxiety was equally divided between normal and moderate anxiety, with 3 people (50.0%) in each category, and no cases of mild, severe, or very severe anxiety.

Table 6. Frequency Distribution of Stress in Caregivers

Categories	Young Adult		Middle Adult		Older Adult		Total	
	n	%	n	%	n	%	n	%
Normal	14	82.4	24	88.9	6	100	44	78.0
Mild	2	11.8	1	3.7	0	0	3	10.0
Moderate	1	5.9	2	7.4	0	0	3	10.0
Severe	0	0	0	0	0	0	0	2.0
Very severe	0	0	0	0	0	0	0	0
Total	17	100	27	100	6	100	50	100

Note: %: distribution percentage

Based on Table 6, of the total 50 caregivers, almost all respondents were in the normal stress category, namely 44 people (88.0%). Furthermore, there were 3 people (6.0%) in each of the mild and moderate stress categories, while no caregivers were found to have severe or very severe stress (0.0%). This shows that, in general, the stress levels of caregivers are still within normal limits.

When viewed by age group, in the young adult group (n=17), most caregivers were in the normal stress category, with 14 people (82.4%), followed by 2 people (11.8%) with mild stress and 1 person (5.9%) with moderate stress. In the middle-aged group (n=27), the majority of caregivers were also in the normal stress category, with 24 people (88.9%), while 1 person (3.7%) each experienced mild and moderate stress. Meanwhile, in the elderly group (n=6), all caregivers were in the normal stress

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category (100.0%), with no mild, moderate, severe, or very severe stress found.

Table 7. Description of Caregiver Depression Scores Based on BDI-II (n=50)

Variable	Min	Max	Mean	Deviation Standard
Depression	0	26	9.96	7.79

Descriptive analysis using the BDI-II instrument was conducted to determine the depression scores of the respondents. Based on Table 7, it was found that the depression scores of caregivers ranged from a minimum of 0 to a maximum of 26, with a mean of 9.96 and a standard deviation of 7.79. This mean value indicates that, in general, the level of depression among caregivers falls into the category of minimal depression according to the BDI-II criteria. However, the maximum value of 26 and the relatively large standard deviation indicate that there is variation in the level of depression among caregivers, with a small number of caregivers experiencing moderate depression. Thus, although the majority of caregivers are at a minimal level of depression, there are still caregivers who require further attention regarding their psychological condition.

Table 8. Description of Caregiver Depression Scores Based on DASS-21 (n=50)

Variable	Min	Max	Mean	Deviation Standard
Depression	0	22	4.88	5.557
Anxiety	0	20	6.68	5.262
Stress	0	24	7.96	6.318

Descriptive analysis using the DASS-21 instrument was conducted to determine the scores for depression, anxiety, and stress among respondents. Based on Table 8, descriptive statistics were obtained for the depression, anxiety, and stress scores of caregivers based on measurements using the DASS-21. Depression scores had a minimum value of 0 and a maximum of 22, with an average of 4.88 and a standard deviation of 5.557. This shows that, in general, the level of depression among caregivers was in the low category, although there were variations in scores between respondents.

For the anxiety variable, the minimum value is 0 and the maximum is 20, with an average value of 6.68 and a standard deviation of 5.262. This average score indicates that, in general, caregivers experience low to moderate levels of anxiety, with a relatively wide distribution of data.

Meanwhile, for the stress variable, the minimum value is 0 and the maximum is 24, with an average score of 7.96 and a standard deviation of 6.318. These results show that, in general, the stress levels of caregivers are still at a low to moderate level, but there is considerable variation in responses between caregivers.

DISCUSSIONS

This study aims to describe the psychological conditions of caregivers of nasopharyngeal cancer patients, including depression, anxiety, and stress at Prof. dr. I.G.N.G. Ngoerah General Hospital. Based on the characteristics of the respondents, the majority of caregivers were in the middle-aged group (36-55 years), which is a productive age group with high social and economic responsibilities. These findings are in line with the results of studies on caregivers of cancer patients, which show that most caregivers come from the productive age group because they have great physical capacity and family responsibilities.[17] Psychologically, this age group is prone to emotional pressure because they have to play a dual role as breadwinners and primary caregivers in the family.

In terms of gender distribution, caregivers in the present study were predominantly male, which contrasts with the majority of international studies reporting a higher proportion of female caregivers. Systematic reviews and multicenter studies consistently show that women more frequently assume caregiving roles and often experience a higher caregiving burden compared to men.[18] The discrepancy observed in this study may be explained by socio-cultural norms and local family structures, where caregiving responsibilities are shaped by gender roles and cultural expectations. In certain cultural contexts, caregiving responsibilities may be transferred to husbands or other male family members, particularly when the patient is female, reflecting culturally embedded norms of spousal responsibility and family obligation.[19,20]

Regarding educational background, most caregivers in this study had secondary to higher education. Higher educational attainment has been associated with better health literacy, improved understanding of disease processes, and greater confidence in navigating healthcare systems among caregivers of cancer patients. Studies have shown that caregivers with higher levels of education tend to demonstrate better self-efficacy and more adaptive coping strategies, which may reduce psychological distress and caregiving burden.[21,22] Education-related differences in health literacy play a crucial role in shaping caregivers' ability to interpret medical information, communicate with healthcare professionals, and manage complex treatment regimens effectively.

In terms of the caregiver–patient relationship, most caregivers were spouses and parents, which aligns with global evidence indicating that the nuclear family remains the primary source of informal care for patients with chronic and life-threatening diseases such as cancer. International and regional

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studies consistently report spouses as the main caregivers, followed by other close family members, emphasizing the central role of family-based caregiving in sustaining long-term care and supporting patient outcomes.[19,23]

The characteristics of nasopharyngeal cancer patients in this study indicate that most patients were middle-aged to elderly adults. This pattern is consistent with the epidemiology of nasopharyngeal cancer, which shows that the disease is commonly diagnosed in individuals of productive age extending into older age groups, particularly between the fourth and sixth decades of life.[24,25,26] From a gender perspective, the majority of patients in this study were female, which differs from most global epidemiological reports that consistently demonstrate a predominance of male patients with nasopharyngeal cancer.[26,27] Globally, nasopharyngeal cancer is reported to affect men two to three times more frequently than women, a pattern observed across both endemic and non-endemic regions.[27] However, national estimates and institutional data from Indonesia suggest that women also carry a substantial burden of nasopharyngeal cancer, highlighting possible regional variations in gender distribution and disease presentation.[24] Based on the duration since diagnosis, most patients in this study were within the first six months after diagnosis, indicating that they were still in the early phase of treatment. This initial period following a cancer diagnosis is widely recognised as a phase of heightened psychological distress, characterised by uncertainty, emotional adjustment, and increased treatment demands for both patients and their caregivers.[28,29] Evidence suggests that anxiety, stress, and depressive symptoms often peak during the early months after diagnosis, making this phase particularly challenging for families who are adapting to new caregiving roles and complex treatment regimens.[29]

Based on measurements using the BDI-II, the average depression score of caregivers was in the minimal depression category. These findings indicate that, in general, caregivers are still able to adapt psychologically in the early stages of caring for nasopharyngeal cancer patients. These results are consistent with studies on cancer patient caregivers that report that the majority of caregivers experience minimal to mild depression.[30,31] Theoretically, during the early phase of caregiving following a cancer diagnosis, anxiety tends to be the dominant emotional response rather than depression. This is because caregivers are often still in an active coping stage, characterised by heightened vigilance, problem-focused coping, and expectations regarding treatment outcomes and potential recovery.[29,32] The initial months after diagnosis are marked by uncertainty, rapid adjustment to new roles, and intensive information processing, which are more closely associated with anxiety symptoms than with depressive symptomatology.[29] Longitudinal studies have shown that while many caregivers experience transient distress that gradually decreases over time, a subset of caregivers exhibits persistently elevated depressive symptoms from the early caregiving period onward.[33] This finding suggests that early caregiving is not uniformly adaptive and that some individuals may enter caregiving with pre-existing vulnerabilities or limited psychosocial resources.

Variations in anxiety and depression levels among caregivers have been consistently associated with several demographic and caregiving-related factors. Previous studies report that caregiver age, relationship with the patient particularly being a spouse or close family member length of caregiving, and perceived economic or financial burden significantly influence caregivers' psychological well-being.[34,35] Financial strain related to treatment costs, loss of income, and long-term economic uncertainty has been identified as a major stressor that exacerbates psychological distress and contributes to depressive symptoms among caregivers of cancer patients.[36] Together, these findings underscore the importance of early identification of high-risk caregivers and the implementation of targeted interventions to prevent the progression from anxiety-dominant distress to clinically significant depression.

Based on measurements using the DASS-21, the majority of caregivers were classified in the normal depression category. This finding is consistent with previous studies indicating that, in general, levels of depressive symptoms among caregivers are relatively low, particularly when assessed during certain phases of the caregiving trajectory.[37] These results also reinforce findings obtained using the Beck Depression Inventory–II (BDI-II), which similarly demonstrate that most caregivers do not meet criteria for clinically significant depression, suggesting overall low levels of depressive symptomatology in caregiver populations.[38]

Differences in outcomes between the BDI-II and DASS-21 may be explained by variations in their conceptual and methodological approaches. The BDI-II is a depression-specific instrument designed to assess the severity of depressive symptoms, whereas the DASS-21 conceptualises depression as one dimension within a broader spectrum of negative emotional states that also includes anxiety and stress.[39,40] As a result, the DASS-21 may yield lower depression severity classifications compared to depression-specific tools, reflecting general emotional distress rather than isolated depressive pathology.

Regarding stress assessment using the DASS-21, most caregivers were found to be in the normal stress category, with only a small proportion experiencing mild to moderate stress. These findings are consistent with research on the physical and psychological impacts of caregiving, which suggests that caregiving does not uniformly result in severe stress for all individuals. In particular, studies indicate that during the early stages of caregiving, many caregivers demonstrate adaptive coping responses and maintain stress levels within normal or mild ranges, while only a subset experiences elevated stress requiring targeted intervention.[37,41] This explains why anxiety appears to be more prominent than depression in this study.

Based on stress measurements using the DASS-21, the majority of caregivers in this study were classified within the normal stress category, with only a small proportion experiencing mild to moderate stress. This finding is consistent with previous research showing that caregiving does not uniformly result in severe psychological stress and that a considerable proportion of caregivers report normal or subclinical stress levels, particularly when assessed using screening instruments such as the DASS-21.[42] Evidence further suggests that caregiver stress varies across the caregiving trajectory, and during the early stages of care when

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caregivers are still adapting and mobilising coping resources stress levels may remain relatively low before increasing as caregiving demands accumulate over time.[43] However, the fact that some caregivers experience mild to moderate stress indicates that caregiving is a chronic stressor that has the potential to cause physical and emotional exhaustion if not balanced with adequate social support.

The clinical implications of these findings highlight the importance of healthcare professionals adopting a holistic approach. Caregivers play a central role in supporting patients throughout the cancer trajectory, and unrecognised psychological distress among caregivers may negatively affect both caregiver health and patient outcome.[43] Therefore, regular psychological screening using validated instruments such as the Beck Depression Inventory–II (BDI-II) and the Depression Anxiety Stress Scale–21 (DASS-21) is recommended as part of comprehensive cancer care. Routine screening facilitates early identification of psychological problems among caregivers and enables timely psychosocial interventions to prevent the progression of distress to clinically significant anxiety or depression.[30]

1. CONCLUSION

This study provides an overview of the psychological condition of caregivers of nasopharyngeal cancer patients undergoing treatment at Prof. dr. I.G.N.G. Ngoerah General Hospital. The results show that caregivers are predominantly adults with a secondary to higher education level, and most are spouses and parents of patients. This indicates that the role of caring for nasopharyngeal cancer patients is primarily carried out by members of the immediate family who are of productive age.

The characteristics of nasopharyngeal cancer patients in this study were mostly in the middle-aged to elderly age group, with a predominance of female patients. These findings reflect the specific characteristics of the hospital-based study sample and do not directly represent the general population. Based on measurements using the BDI-II instrument, the overall level of depression among caregivers was in the minimal depression category, indicating that most caregivers were still able to adapt psychologically to their caregiving roles. The results of measurements using the DASS-21 show that most caregivers are in the normal depression and normal stress categories. However, there is still a proportion of caregivers who experience moderate to severe anxiety, making anxiety the most prominent psychological problem among caregivers in this study.

Overall, the psychological condition of caregivers of nasopharyngeal cancer patients in this study was characterized by relatively low levels of depression and stress, but with anxiety levels that still required special attention. These findings emphasize the importance of paying attention to the psychological aspects of caregivers as an integral part of comprehensive care for nasopharyngeal cancer patients.

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