

Sleep quality profile among elderly patients with depression at the psychiatry outpatient clinic of Bhayangkara hospital Kediri

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Abstract

Background: Sleep disturbances commonly occur in elderly patients with depression. Determining the level of depression and the profile of sleep disturbances is crucial in establishing appropriate therapy because the causes are multifactorial.

Objective: This study aimed to determine the level of depression and describe the sleep quality of elderly patients with depression at the Psychiatric Outpatient Unit of Bhayangkara Hospital Kediri.

Methods: This study employed a descriptive cross-sectional design. The Pittsburgh Sleep Quality Index (PSQI) questionnaire was administered to elderly patients with depression to assess their sleep quality. Data were collected from patients attending follow-up visits at the Psychiatric Outpatient Clinic of Bhayangkara Hospital Kediri between May and October 2025. A total of 70 patients who met the inclusion criteria were enrolled in the study.

Results: The PSQI questionnaire data showed that the majority of respondents with depression had poor sleep quality. Cumulatively, 68 respondents (97%) were categorized as having poor sleep quality with a global score >5, while only 2 respondents (3%) demonstrated good sleep quality with a global score ≤5.

Conclusion: The level of depression among elderly patients receiving treatment at the outpatient unit was mostly classified as mild (89%) and moderate (11%). A total of 97% of elderly patients with depression reported poor sleep quality, characterized by difficulty initiating sleep, reduced sleep duration, and decreased sleep efficiency, which interfered with daytime activities.

Keyword: Sleep quality; Sleep disturbances; Elderly patients; Major depressive disorder; PSQI; Mental health services

1. Introduction

Depression is a mood disorder marked by persistent sadness and loss of interest. Across its various forms, depression is generally characterized by sadness, emptiness, or irritability, along with somatic and cognitive changes that meaningfully impair a person's daily functioning [1]. As a multifactorial condition, depression arises from both modifiable factors—such as exercise, sleep, diet, and social engagement—and non-modifiable factors like genetics and

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age. WHO data from 2017 placed the global prevalence of depression among older adults at 61.6%, while more recent estimates suggest that roughly 280 million people worldwide (3.8%) live with depression, with 5.7% of those being adults over 60 [2]. In Indonesia, Riskesdas (2018) reported that more than 19 million people over age 15 experience mental-emotional disorders, over 12 million of whom have depression, including 6.1% among older adults.

Older age, defined in Indonesian law as beginning at 60 years [3], represents the final stage of human development. WHO projects that the global population of older adults will reach 1.4 billion by 2030, raising concerns about psychiatric disorders and geriatric syndromes [4]. As this population grows, so does the public health burden of late-life depression. Evidence shows that sleep quality tends to be notably poorer among older patients—particularly those who are married, unemployed, living with chronic illness, or experiencing severe depressive symptoms—and that depression correlates negatively with both sleep quality and quality of life, while quality of life and depression show a positive correlation [5].

Poor sleep quality is a common concern among older adults, driven by age-related physiological, psychological, and social changes that disrupt normal sleep patterns. Many older individuals experience shorter sleep duration, frequent nighttime awakenings, and difficulty falling asleep—issues that can reduce quality of life, impair daily functioning, and heighten the risk of mental health problems such as depression [6].

Depression in older adults frequently co-occurs with sleep disturbances. Panamuan, Candrawati, and Metrikayanto (2019) found that most older adults in their study had poor sleep quality, which was significantly associated with depression. Similarly, Sutrianto (2016) reported that 80.5% of older adults in a social care facility had poor sleep quality, with a significant link between depression severity and sleep quality. Afandi (2025) likewise identified a significant relationship between depression and sleep quality among older residents of Panti Sosial Tresna Werdha Budi Mulia in East Jakarta.

Despite this body of research, most existing studies rely on analytic designs to examine the relationship between these variables [7] and tend to focus on older adults in community or residential care settings rather than those receiving psychiatric care in hospitals [8]. Research specifically describing sleep quality profiles among depressed older patients in hospital psychiatric clinics remains limited, particularly in Indonesia. This study therefore aims to describe the sleep quality profile of older patients with depression at the Psychiatric Outpatient Clinic of Bhayangkara Hospital, Kediri, using the Pittsburgh Sleep Quality Index (PSQI), to provide a clearer picture of sleep quality in this population.

While research on depression and sleep quality is fairly extensive, few studies have specifically examined sleep quality among older patients with depression. This study seeks to address that gap by investigating the sleep quality profile of depressed older patients at the Psychiatric Outpatient Clinic of Bhayangkara Hospital, Kediri, with the aim of broadening understanding of this population's sleep quality patterns.

2. Material and methods

This study employed a descriptive observational design with a prospective cross-sectional approach, aiming to describe sleep quality using the Indonesian-validated Pittsburgh Sleep Quality Index (PSQI) questionnaire, without administering any intervention to the study subjects. The sample consisted of older adult patients—both newly diagnosed and previously diagnosed with depression—who met the inclusion criteria at the Psychiatric Outpatient Clinic of Bhayangkara Hospital, Kediri, between May and October 2025, selected through non-randomized purposive sampling. Data were obtained from patients' medical records, covering variables relevant to sleep quality profiles among older patients with depression, both with and without comorbidities, and were subsequently categorized by sleep quality level, age, sex, and depression severity before being presented in tables, charts, and narrative form. As Bhayangkara Hospital Kediri does not have its own Ethics Committee, ethical clearance was obtained from the Ethics Committee of Bhayangkara Hospital Surabaya, which holds jurisdiction over all Bhayangkara hospitals; the study was reviewed and approved under Ethical Clearance Certificate No. 15/IV/2026/KEPK/RUMKIT, with institutional permission granted by the Director of Bhayangkara Hospital Kediri under Letter No. Sket/441/IX/LIT.2.1./2025.

3. Result and discussion

A total of 70 elderly patients with depression met the inclusion criteria during the study period and data collected included demographic characteristics such as age sex and marital status diagnosis of depression severity of depression medical comorbidities history of psychiatric medication use and sleep quality profile assessed through medical records and the Pittsburgh Sleep Quality Index PSQI along with additional data on sleep patterns sleep duration sleep

disturbances experienced by patients and factors potentially affecting sleep quality all of which were subsequently analyzed and categorized based on patient characteristics and depression severity to describe the overall sleep quality profile among elderly patients with depression at the Psychiatric Outpatient Clinic of Bhayangkara Hospital Kediri

Table 1 Demographic Characteristics of Elderly Patients with Depression

Demographic Data	Number of Patient (n = 70)	%
Age (Years)		
60-74	65	93
75-90	5	7
>90	0	0
Sex		
Male	19	27
Female	51	73
Work		
Housewife	30	43
Farmer	20	30
Retired Civil Servant	9	13
Retired Teacher	4	6
Trader	3	4
Retired Republic of Indonesia Police	1	1
Private Employee	1	1
Cook	1	1
Laborer	1	1
Marital Status		
Married	68	97
Divorced	2	3

Results showed that most elderly patients with depression were in the 60 to 74 year age group totaling 65 people or 93 percent followed by those aged 75 to 90 years totaling 5 people or 7 percent while no patients above 90 years were found indicating that the majority of depressed patients in this study belonged to the early elderly category which aligns with epidemiological findings reported elsewhere [9] since this phase commonly coincides with retirement transitions involving changes in social roles reduced productivity and diminished social interaction that act as psychosocial stressors heightening the risk of depression and sleep disturbance [10] female patients dominated the sample with 51 people or 73 percent compared to 19 male patients or 27 percent a pattern consistent with findings from other countries [11] attributed to hormonal shifts following menopause that increase vulnerability to depression and sleep disturbance [12] as well as the psychosocial burden of dual roles as homemakers family financial contributors or caregivers for ill spouses or parents [13] alongside womens greater willingness to seek medical help for psychological and sleep related concerns which may also raise diagnosed prevalence [14] in terms of occupation most patients were homemakers totaling 30 people or 43 percent followed by farmers totaling 20 people or 30 percent retired civil servants 9 people or 13 percent retired teachers 4 people or 6 percent traders 3 people or 4 percent and retired police officers private employees cooks and laborers each comprising 1 person or 1 percent reflecting the local socioeconomic structure commonly associated with lower education levels financial dependence on family members and limited social engagement outside the home [15] conditions that generate chronic economic stress and restrict access to mental health resources and recreational facilities supportive of healthy sleep [16] while lower economic status further increases vulnerability to poor nutrition and chronic illness both of which can worsen sleep quality and depression risk [17]

regarding marital status nearly all patients were married totaling 68 people or 97 percent while only 2 patients or 3 percent were divorced demonstrating the dual role of marital status as married older adults generally benefit from emotional support that protects against social isolation and supports mental health and sleep quality [18] yet when a spouse also requires intensive care the resulting caregiving burden can become an additional stressor particularly in the absence of other family caregivers while emotional and financial interdependence between spouses may further complicate daily psychological dynamics and increase the risk of chronic stress and disrupted sleep [19] overall these demographic findings indicate that the majority of elderly patients with depression in this study were female within the early elderly age range married and largely unemployed or working as homemakers with these factors interacting through biological psychosocial economic and healthcare access pathways underscoring the need for comprehensive preventive interventions integrating gender sensitive sleep hygiene education family economic empowerment and stronger community social networks [20]

Table 2 Depression Type, Comorbidities, and Duration of Depression

Clinical Characteristics	Number of Patients (n=70)	%
Type of Depression		
Mild	62	89
Moderate	8	11
Comorbidity		
None	61	87
Diabetes Mellitus	2	3
Hypertension	2	3
Low Back Pain	1	1
GERD	1	1
Osteoarthritis	1	1
Cordis Decompensation	1	1
Hypertension + DM	1	1
Duration of Depression		
0-5 Years	67	96
5-10 Years	3	4

Results showed that most elderly patients experienced mild depression totaling 62 people or 89 percent while 8 patients or 11 percent had moderate depression patients with severe depression were excluded since such cases typically require inpatient care and are generally less cooperative with research procedures which can be explained by the nature of the care setting itself as patients with severe depression are usually referred for more intensive inpatient management and tend to be less cooperative with questionnaires or assessments [21] often compounded by significant cognitive and physical impairment that limits participation in self administered assessments [22] regarding comorbidity most patients had no physical comorbidity totaling 61 people or 87 percent followed by diabetes mellitus 2 people or 3 percent hypertension 2 people or 3 percent low back pain 1 person or 1 percent gastroesophageal reflux disease 1 person or 1 percent osteoarthritis 1 person or 1 percent cardiac decompensation 1 person or 1 percent and combined hypertension with diabetes mellitus 1 person or 1 percent clinically even mild to moderate depression substantially affects social functioning and quality of life manifesting as reduced motivation social isolation sleep disturbance and diminished daily activity [23] with evidence confirming a bidirectional relationship in which poor sleep worsens depressive symptoms and depression in turn degrades sleep quality [24] and declining social function can accelerate physical frailty and reduce life satisfaction further lowering overall quality of life [25] the relatively low rate of organic comorbidity among most participants suggests that psychosocial stressors rather than physical illness are the primary drivers of sleep disturbance and depression in this group [26] with loneliness loss of a spouse or peers shifting family roles and economic stress emerging as more dominant determinants than chronic organic disease [27] although organic comorbidities remain a meaningful risk factor since chronic conditions such as diabetes hypertension and osteoarthritis can heighten insomnia risk through chronic pain nighttime discomfort and health related anxiety

[28] and when combined with the psychological burden of physical limitation can further worsen sleep disturbance and increase the risk of severe depression [29] regarding illness duration most respondents had experienced depression for 0 to 5 years totaling 96 percent a period linked to neurobiological changes in the aging brain such as reduced synaptic density in frontal regions that affect mood regulation and circadian rhythm [30] with depressed older adults commonly experiencing circadian misalignment increased sleep latency and fragmented sleep this early phase often represents an active period of coping with new stressors such as retirement or spousal loss and when this adaptation fails depressive and sleep symptoms tend to worsen as illness duration increases [31] with longitudinal evidence showing that each additional year of untreated depression is associated with up to an hour reduction in nightly sleep duration and greater sleep fragmentation particularly among older and female patients driven by the cumulative neurobiological effects of chronic stress and increasingly difficult to reverse circadian maladaptation [32] taken together the predominance of mild to moderate depression without physical comorbidity in this outpatient setting points to psychosocial factors as the primary trigger of depressive symptoms among study participants while chronic illness remains an additional risk factor for poor sleep quality with the 0 to 5 year window since depression onset representing a critical period for early preventive intervention best addressed through a multidisciplinary biopsychosocial approach [33]

Table 3 Patient Therapy History Data

Treatment History	n(70)	%
None Treatment History	61	87
Amlodipin	1	2
Amlodipin + Furosemid	3	4
Metformin + Glibenklamid	2	3
Neurobion + Natrium diklofenak	2	3
Omeprazol + Antasida	1	2

Results showed that patients with no history of medication therapy dominated the sample totaling 61 people or 87 percent followed by those taking a combination of amlodipine and furosemide totaling 3 people or 4 percent metformin and glibenclamide 2 people or 3 percent metformin and sodium diclofenac 2 people or 3 percent omeprazole and antacids 1 person or 2 percent and amlodipine alone 1 person or 2 percent

Table 4 Depression Therapy Data

Depression Therapy	n(70)	%
Trifluoperazin (tablet)		
0	1	1.43%
$\frac{1}{8}$	8	11.43%
$\frac{1}{6}$	58	82.86%
$\frac{1}{5}$	1	1.43%
$\frac{1}{4}$	2	2.86%
Amitriptilin (tablet)		
0	1	1.43%
$\frac{1}{6}$	1	1.43%
$\frac{1}{5}$	3	4.29%

$\frac{1}{4}$	58	82.86%
$\frac{1}{3}$	5	7.14%
$\frac{2}{3}$	1	1.43%
Trihexyphenidyl (tablet)		
0	1	1.43%
$\frac{1}{8}$	5	7.14%
$\frac{1}{6}$	59	84.29%
$\frac{1}{4}$	3	4.29%
Lorazepam (mg)		
0	7	10.00%
0.125	33	47.14%
0.200	15	21.43%
0.250	11	15.71%
0.500	4	5.72%
Alprazolam (mg)		
0	3	4.29%
0.125	5	7.14%
0.200	45	64.29%
0.250	15	21.43%
0.300	2	2.86%
1.200	1	1.43%
Estazolam (tablet)		
0	66	94.29%
$\frac{1}{2}$	4	5.71%
Escitalopram (tablet)		
0	66	94.29%
$\frac{1}{2}$	4	5.71%
Clobazam (tablet)		
0	52	74.29%
$\frac{1}{10}$	1	1.43%
$\frac{1}{8}$	6	8.57%

$\frac{1}{6}$	8	11.43%
$\frac{1}{2}$	2	2.86%
1	1	1.43%
Sertralin (tablet)		
0	64	91.43%
$\frac{1}{6}$	1	1.43%
$\frac{1}{3}$	1	1.43%
$\frac{1}{2}$	4	5.71%
Diazepam (tablet)		
0	64	91.43%
$\frac{1}{6}$	1	1.43%
$\frac{1}{3}$	1	1.43%
$\frac{1}{2}$	4	5.71%
Noxetin (tablet)		
0	69	98.57%
$\frac{1}{3}$	1	1.43%
Maprotilin (tablet)		
0	69	98.57%
$\frac{1}{3}$	1	1.43%

Results showed that the therapy administered to study participants consisted of compounded medications including antidepressants low dose antipsychotics benzodiazepines and anticholinergics with the most frequently used components being trifluoperazine at a dose of 1/6 tablet given to 58 patients or 82.86 percent amitriptyline at a dose of 1/4 tablet given to 58 patients or 82.86 percent and trihexyphenidyl at a dose of 1/6 tablet given to 59 patients or 84.29 percent for lorazepam the most common dose was 0.125 milligrams used by 33 patients or 47.14 percent followed by 0.200 milligrams in 15 patients or 21.43 percent and 0.250 milligrams in 11 patients or 15.71 percent while for alprazolam a dose of 0.200 milligrams was most frequently administered to 45 patients or 64.29 percent most patients did not receive estazolam escitalopram clobazam sertraline diazepam or noxetin indicating relatively limited use of these medications in this study population this treatment pattern reflects the low comorbidity rate within this population since the absence of chronic conditions such as diabetes hypertension or osteoarthritis allows treatment focus to shift more directly toward addressing psychiatric symptoms and improving sleep quality [34] while also reducing the risk of drug interactions and polypharmacy related side effects that typically complicate geriatric care [35] though the absence of physical comorbidity does not rule out psychosocial burden as a primary driver of sleep disturbance and depression in this group [36] sedating antidepressants such as amitriptyline are commonly used in older patients for their dual benefit in reducing sleep latency increasing total sleep time and decreasing nighttime awakenings while also addressing depressive symptoms [37] although long term use requires close monitoring given the heightened risk of cardiovascular and anticholinergic side effects in this age group [38] low dose trifluoperazine is administered for its anxiolytic effect but carries a risk of parkinsonian side effects which is why trihexyphenidyl an antiparkinsonian agent is co administered to mitigate this risk because drug metabolism declines with age the risk of

accumulation and adverse effects such as orthostatic hypotension delirium and cognitive impairment rises accordingly making low dose strategies strongly advisable [39] with the start low go slow principle serving as the guiding standard for pharmacotherapy in older adults [40] benzodiazepines such as lorazepam and alprazolam remain commonly used for acute anxiety or severe sleep disturbance in depressed older patients [41] offering rapid anxiolytic and hypnotic effects suitable for short term therapy but long term use is strongly discouraged due to risks of dependence tolerance cognitive impairment delirium and increased likelihood of falls and fractures [42] notably discontinuing benzodiazepines has been shown to improve depressive symptoms over the long term even though sleep quality may temporarily worsen during withdrawal [43] the relationship between pharmacological treatment and sleep quality outcomes is therefore nuanced as low dose sedating antidepressants produce meaningful improvements in sleep quality for older patients with comorbid depression and insomnia [44] whereas benzodiazepines offer only short term relief without sustained benefit and may worsen sleep quality with continued use [45] while combination therapy with antidepressants and benzodiazepines may be considered during acute episodes of severe depression with marked anxiety or insomnia provided regular reassessment is conducted to prevent dependence or serious adverse effects [46] safety remains paramount in geriatric pharmacological management with the start low go slow principle applied across all psychotropic medications to prevent toxic accumulation arising from age related pharmacokinetic and pharmacodynamic changes [47] alongside systematic periodic evaluation of treatment efficacy and side effects complemented by non pharmacological interventions such as sleep hygiene education and cognitive behavioral therapy recommended as first line or adjunctive approaches for optimal long term outcomes [48] accordingly the treatment approach adopted at the Psychiatric Outpatient Clinic of Bhayangkara Hospital Kediri reflects an evidence based cautious strategy prioritizing low dose sedating antidepressants to simultaneously address insomnia and depressive symptoms restricting benzodiazepine use to specific indications and maintaining safety through gradual titration and close monitoring an approach shown to improve sleep quality while minimizing complications associated with psychotropic use in geriatric populations [49] supplemented by non pharmacological sleep hygiene measures including consistent sleep wake schedules reserving the bedroom exclusively for sleep regular meal timing reduced fluid intake at night avoidance of alcohol caffeine and nicotine calming pre sleep routines and minimizing light and noise exposure [50]

Table 5 Subjective Sleep Quality Data

Subjective Sleep Quality	Number of Patients (n=70)	%
Very Good	2	3
Good	38	54
Poor	24	34
Very Poor	6	8

Results showed that subjective sleep quality rated as good predominated with 38 people or 54 percent followed by fairly poor sleep quality in 24 people or 34 percent very poor sleep quality in 6 people or 8 percent and very good sleep quality in 2 people or 3 percent.

Table 6 Sleep Latency Data

Score Sleep Latency	Interpretation Parameter	n(70)	%
0	Very Good	0	0
1-2	Fairly Good	5	7
3-4	Fairly Poor	32	45
5-6	Very Poor	34	48

Results showed that sleep latency scores of 5 to 6 predominated indicating that 34 people or 48 percent had very poor sleep latency followed by latency scores of 3 to 4 in 32 people or 45 percent latency scores of 1 to 2 in 5 people and no patients were found with a latency score of 0.

Table 7 Sleep Duration Data

Sleep Duration (Hour)	Interpretation Parameter	n (70)	%
>7	Very Good	5	7
6-7	Fairly Good	15	21
5-6	Fairly Poor	27	39
<5	Very Poor	23	33

Results showed that a sleep duration of 5 to 6 hours predominated with 27 people or 39 percent indicating that sleep duration was somewhat poor among most respondents followed by a duration of less than 5 hours in 23 people or 33 percent a duration of 6 to 7 hours in 15 people or 21 percent and a duration of more than 7 hours in 5 people or 7 percent.

Table 8 Sleep Efficiency Data

Sleep Efficiency %	Interpretation Parameter	n (70)	%
>85%	Very Good	18	26
75-84	Fairly Good	27	39
65-74	Fairly Poor	22	31
<65	Very Poor	3	4

Results showed that a sleep efficiency of 75 to 84 percent predominated with 27 people or 39 percent indicating fairly good sleep efficiency among elderly patients with depression followed by an efficiency of 65 to 74 percent in 22 people or 31 percent an efficiency of more than 85 percent in 18 people or 26 percent and an efficiency of less than 65 percent in 3 people or 4 percent

Table 9 Sleep Disturbance Data

Score Sleep Disturbance	Interpretation Parameter	n (70)	%
0	Very Good	1	1
1-9	Fairly Good	64	91
10-18	Fairly Poor	5	7
19-27	Very Poor	0	0

Results showed that sleep disturbance scores of 1 to 9 predominated with 64 people or 91 percent indicating minimal sleep disturbance among patients followed by scores of 10 to 18 in 5 people or 7 percent while one patient reported no sleep disturbance at all reflecting very good sleep quality.

Table 10 Sleep Medication Use Data

Use of Sleep Medication	Interpretation Parameter	n (70)	%
Never	Very Good	41	59
Once per week	Fairly Good	7	10
Twice per week	Fairly Poor	12	17
More than 3 times/week	Very Poor	10	14

Results showed that 41 people or 59 percent had never used sleep medication followed by use of sleep medication twice a week in 12 people or 17 percent use more than three times a week in 10 people or 14 percent and use once a week in 7 people or 10 percent.

Table 11 Daytime Dysfunction Data

Daytime Dysfunction	Interpretation Parameter	n (70)	%
0	Very Good	4	6
1-2	Fairly Good	9	13
3-4	Fairly Poor	52	74
5-6	Very Poor	5	7

Results showed that 74 percent of patients or 52 people reported their daytime activity was somewhat impaired followed by 7 percent who reported their daytime activity was severely impaired while 6 percent or 4 people reported no impairment in daytime activity and 13 percent reported fairly good daytime activity.

Table 12 Pittsburgh Sleep Quality Index (PSQI) Data

Score Global	n(%)	%
≤ 5	2	3
>5	68	97

Results showed that based on the PSQI questionnaire data a global score greater than 5 was found in 68 people or 97 percent indicating poor sleep quality followed by a global score of 5 or less in 2 people or 3 percent indicating good sleep quality these findings demonstrate that most elderly patients with mild to moderate depression experienced disturbances in their sleep quality.

Table 13 PSQI Data by Depression Severity

PSQI	Mild Depression n(%)	Moderate Depression n(%)
Subjective Sleep Quality		
Score 0 Very Good	2 (3%)	0 (0%)
Score 1 Fairly Good	35 (56%)	4 (50%)
Score 2 Fairly Poor	20 (32%)	3 (38%)
Score 3 Very Poor	5 (8%)	1 (12%)
Sleep Latency		
Score 0 Very Good	0 (0%)	0 (0%)
Score 1 Fairly Good	4 (6%)	1 (12%)
Score 2 Fairly Poor	27 (44%)	4 (50%)
Score 3 Very Poor	31 (50%)	3 (38%)
Sleep Duration (Hour)		
Score 0 Very Good	5 (8%)	0 (0%)
Score 1 Fairly Good	13 (21%)	3 (38%)
Score 2 Fairly Poor	23 (37%)	3 (38%)
Score 3 Very Poor	21 (34%)	2 (25%)
Sleep Efficiency (%)		
Score 0 Very Good	16 (26%)	2 (25%)

Score 1 Fairly Good	25 (40%)	3 (38%)
Score 2 Fairly Poor	19 (31%)	1 (12%)
Score 3 Very Poor	2 (3%)	2 (25%)
Sleep Disturbance		
Score 0 Very Good	1 (2%)	0 (0%)
Score 1 Fairly Good	58 (94%)	6 (75%)
Score 2 Fairly Poor	3 (5%)	2 (25%)
Score 3 Very Poor	0 (0%)	0 (0%)
Use of Sleep Medication		
Score 0 Very Good	35 (56%)	6 (75%)
Score 1 Fairly Good	6 (10%)	1 (12%)
Score 2 Fairly Poor	11 (18%)	1 (12%)
Score 3 Very Poor	10 (16%)	0 (0%)
Daytime Dysfunction		
Skor 0 sangat baik		
Score 0 Very Good	4 (6%)	0 (0%)
Score 1 Fairly Good	8 (13%)	2 (25%)
Score 2 Fairly Poor	45 (73%)	6 (75%)
Score 3 Very Poor	5 (8%)	0 (0%)
Score Global		
≤5	2 (3%)	0 (0%)
>5	60 (97%)	8 (100%)

Results based on Table 5 13 presenting the PSQI questionnaire data showed that most depressed respondents exhibited suboptimal sleep quality with 68 respondents or 97 percent falling into the poor sleep quality category global score greater than 5 while only 2 respondents or 3 percent demonstrated good sleep quality global score 5 or less among those with mild depression sleep latency and daytime dysfunction contributed most heavily to poor sleep quality with 31 individuals or 50 percent reporting severe difficulty falling asleep and 45 or 73 percent reporting somewhat impaired daytime activity due to inadequate sleep although most did not rely on sleep medication 56 percent their sleep efficiency and duration remained unsatisfactory with the majority reporting only fairly good sleep efficiency 40 percent and somewhat poor sleep duration 37 percent in contrast all respondents with moderate depression 100 percent exhibited poor sleep quality with complaints distributed fairly evenly across components 50 percent rated subjective sleep quality as fairly good yet this was accompanied by somewhat poor sleep latency in the same proportion daytime dysfunction was also prominent in this group with 6 individuals or 75 percent reporting significant impact on daily functioning and as with the mild depression group most moderate depression respondents 75 percent did not use sleep medication suggesting that sleep disturbance arose organically from the underlying psychological condition rather than external factors these findings are consistent with prior research demonstrating a high prevalence of sleep disturbance among depressed older adults and a close relationship between poor sleep quality and depressive symptoms [51] particularly since a PSQI global score above this threshold is widely validated as a strong indicator of sleep disturbance in older populations [52] and has been shown to correlate linearly with the risk and severity of depressive symptoms [53] notably some older adults rated their subjective sleep quality as fairly good even while objective components such as latency duration and efficiency remained impaired a discrepancy supported by prior studies documenting the gap between subjective perception and objective measurement of sleep quality in depressed older adults [54] as older individuals often normalize sleep disturbance as part of aging or underestimate its impact on mental and physical health [55] underscoring the importance of standardized instruments such as the PSQI for detecting issues that subjective report alone may miss sleep latency in particular tended to be markedly poor consistent with evidence linking negative rumination excessive anxiety and pre sleep mental hyperarousal to difficulty initiating sleep [56] compounded by stress system activation in depression encompassing the HPA axis autonomic nervous system and limbic circuitry [57] which elevates cortisol levels disrupts circadian rhythm and consequently lengthens sleep latency while lowering sleep quality [58] most respondents slept only 5 to 6 hours or even less per night well below the recommended 7 to 8 hours for older adults impairing physical and mental restoration [59] with short sleep duration known to heighten chronic fatigue impair cognitive function worsen depressive symptoms and hinder memory consolidation and emotional regulation

ultimately weakening coping capacity for daily stress [60] in some cases sleep efficiency remained relatively favorable yet frequent nighttime awakenings whether driven by psychological factors or physical conditions such as pain or nocturia meant that overall restfulness remained poor despite seemingly adequate efficiency scores [61] components such as breathing difficulty or severe pain during sleep were relatively minimal among most respondents however even small contributions from these components added to the overall PSQI global score when combined with more dominant issues such as poor latency and duration reinforcing that poor sleep quality among depressed older adults is driven more by psychological factors than by physical sleep related complaints [62]

4. Conclusion

Based on the findings regarding the sleep quality profile of elderly patients with depression at the Psychiatric Outpatient Clinic of Bhayangkara Hospital Kediri it can be concluded that most elderly patients attending the clinic experienced mild depression at 89 percent and moderate depression at 11 percent and most elderly patients with depression exhibited poor sleep quality as indicated by a PSQI global score greater than 5 in 97 percent of cases.

Compliance with ethical standards

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Disclosure of conflict of interest

The authors declare that there is no conflict of interest regarding the publication of this paper.

Statement of ethical approval

As Bhayangkara Hospital Kediri does not have its own Ethics Committee ethical clearance was obtained from the Ethics Committee of Bhayangkara Hospital Surabaya which holds jurisdiction over all Bhayangkara hospitals the study was reviewed and approved under Ethical Clearance Certificate Number 15 IV 2026 KEPK RUMKIT with institutional permission granted by the Director of Bhayangkara Hospital Kediri under Letter Number Sket 441 IX LIT 2 1 2025.

Statement of informed consent

Written informed consent was obtained from all participants before their enrollment in the study. For participants with impaired decision-making capacity, written informed consent was obtained from their legally authorized representatives. Participants were informed about the purpose of the study, the study procedures, their right to refuse participation or withdraw at any time without any consequences to their medical care, and the confidentiality of their personal information. All collected data were anonymized and used solely for research purposes.

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