Factors Associated with Depressive Symptoms Among Community-Dwelling Older People in East-Coast Malaysia

Siti Suhana Zakaria[1], Siti Nur Illiani Jaafar[1*], Muhammad Kamil Che Hasan[1], Nik Noor Kaussar Nik Mohd Hatta[1], Wan Nor Aliza Wan Abdul Rahman[2]

1. Kulliyah of Nursing, International Islamic University Malaysia, Pahang, Malaysia
2. School of Nursing, Universiti Sultan Zainal Abidin, Terengganu, Malaysia

*E-mail: illiani@iium.edu.my

Abstract

Older people are increasing in number globally, and they are likely to have mental health problems, including depression. In this population, the risk of having depressive symptoms is very high due to multidimensional factors, but these symptoms are often undertreated. This study aimed to determine the prevalence and associated factors of depressive symptoms among community-dwelling older people living on the East Coast of Malaysia. A cross-sectional study was conducted in several areas of the state of Terengganu based on multilayered stratified sampling. A total of 240 participants were randomly selected. Several instruments were employed, such as the Geriatric Depression Scale, University of California Los Angeles Loneliness Scale, Pittsburgh Sleep Quality Index, Elderly Cognitive Assessment Questionnaire, Multidimensional Scale of Perceived Social Support, Duke University Religion Index, Barthel Modified Index, and Instrumental Activities of Daily Living Scale. The prevalence of depressive symptoms was 24.6%. The results of the multivariate logistic regression model also revealed that being a single elderly (adjusted odd ratio [aOR] = 4.42; Confidence Interval [CI] = 1.22; 15.96), poor social support (aOR = 3.06; CI = 1.18; 7.93), loneliness (aOR = 21.11; CI = 9.87; 45.18), impaired functional status (aOR = 3.39; CI = 1.22; 9.39), impaired instrumental function (aOR = 6.09; CI = 1.95; 19.0), and having asthma (aOR = 14.14; CI = 2.83; 70.5) were associated with depressive symptoms. Thus, screening older people during primary care is needed for early detection of depression and initiation of community-based interventions to address the psychological aspects of this disorder.

Keywords: aging, community dwelling, depression, elderly, factor, mental health

Abstrak

Faktor-Faktor yang Berkaitan dengan Gejala Depresi pada Kalangan Lansia di Pantai Timur Malaysia*. Jumlah penduduk lanjut usia di seluruh dunia semakin meningkat, dan mereka cenderung mempunyai masalah kesehatan mental, termasuk depresi. Pada populasi ini, risiko terjadinya gejala depresi sangat tinggi karena faktor multidimensi, namun gejala tersebut seringkali tidak tertangani. Penelitian ini bertujuan untuk mengetahui prevalensi dan faktor-faktor yang berhubungan dengan gejala depresi di kalangan lansia yang tinggal di Pantai Timur Malaysia. Sebuah studi cross-sectional dilakukan di beberapa wilayah negara bagian Terengganu berdasarkan multilayered stratified sampling. Sebanyak 240 peserta dipilih secara acak. Beberapa instrumen yang digunakan antara lain Geriatric Depression Scale, University of California Los Angeles Loneliness Scale, Pittsburgh Sleep Quality Index, Elderly Cognitive Assessment Questionnaire, Multidimensional Scale of Perceived Social Support, Duke University Religion Index, Barthel Modified Index, dan Instrumental Activities of Daily Living Scale. Prevalensi gejala depresi adalah 24,6%. Hasil multivariate logistic regression model juga mengungkapkan bahwa menjadi lansia tunggal (adjusted odds ratio [aOR] = 4,42; Confidence Interval [CI] = 1,22; 15,96), dukungan sosial yang buruk (aOR = 3,06; CI = 1,18; 7,93), kesepian (aOR = 21,11; CI = 9,87; 45,18), gangguan status fungsional (aOR = 3,39; CI = 1,22; 9,39), gangguan fungsi instrumental (aOR = 6,09; CI = 1,95; 19,0), dan menderita asma (aOR = 14,14; CI = 2,83; 70,5) berhubungan dengan gejala depresi. Oleh karena itu, memeriksa lansia selama perawatan utama diperlukan untuk deteksi awal depresi dan inisiasi intervensi berbasis komunitas yang dapat mengatasi aspek psikologis dari gangguan ini.*

Kata Kunci: *depresi, faktor, kesehatan mental, lansia, penuaan, tempat tinggal komunitas*

Introduction

Depressives are frequently reported among older people and the symptoms mimic the normal features of aging (Jha et al., 2019). According to the American Psychiatric Association (2013), common symptoms of depression in the elderly include persistent sadness, feeling slowed down, excessive worries about finances and health problems, frequent tearfulness, feeling worthless or helpless, changes in weight, pacing or fidgeting, difficulties in concentration, sleeping, somatic complaints such as unexpected physical pain, gastrointestinal problems, and withdrawal from social activities. The World Health Organization (2017) reported that depression occurs in 7% of the elderly population and in 5.7% of the years of life lost due to disability in the age group 60 and older. The prevalence of depression among older people has been assessed worldwide. Most studies were conducted in West Africa (Kugbey et al., 2018), while one study was carried out in East Africa (Mirkena et al., 2018). Two studies were conducted in the Middle East (El-Gilany et al., 2018; Tanjanai et al., 2017), and one was carried out in Australia (Mohebbi et al., 2019). Numerous epidemiological studies were conducted in South Asian countries, and they reported a prevalence of depressive symptoms among older people ranging from 19.3% to 34.6% (Aznan et al., 2019; Bhamani et al., 2013; Charoensakulchai et al., 2019; Cherry et al., 2012; He et al., 2016; Li et al., 2015; Pilania et al., 2019; Putri & Fitriyani, 2016).

Many studies found that older females were more likely to have depression compared to older males (Ashe & Routray, 2019; Bae, 2020; Dai et al., 2019; Disu et al., 2019; El-Gilany et al., 2018; Fatima et al., 2019; Kavithai et al., 2018; Mirkena et al., 2018; Tanjanai et al., 2017). This may be because women carry the burden of household responsibilities and face numerous conflict events throughout their lives. Being unmarried, widowed, or divorced was found to be significantly associated with depressive symptoms because the elderly feel lone-

lier when they live alone (Rajapakshe et al., 2019). In one study Rashid and Tahir (2015), severe depression was reported among participants who had completed primary school and were unemployed.

Several biological factors, such as being female (Aznan et al., 2019), old age (Rashid & Tahir, 2015), and chronic illnesses (e.g., hypertension, osteoarthritis, and swallowing problems) (Vanoh et al., 2016), have been found to be significantly associated with depressive symptoms. Furthermore, somatic symptoms such as sleep disturbance (Jha et al., 2019), comorbid diseases, poor physical status, and cognitive impairment due to structural changes in the brain have been linked to depression (The Best Practice Advocacy Centre New Zealand, 2011). Depressive symptoms have been reported among older people who are unable to carry out activities of daily living (ADL) (Cong et al., 2015; Disu et al., 2019; Konda et al., 2018; Manandhar et al., 2019; Shao et al., 2017; Simkhada et al., 2018).

Psychological conditions such as living alone, being socially isolated, having few social interactions, and having recent functional dependence may cause depressive symptoms among the elderly (Yánez et al., 2019). Several studies conducted in Malaysia have documented depression among older people at rates ranging from 13.7% (Hamzah et al., 2018) to 19.3% (Aznan et al., 2019). One study found that older individuals living in rural areas were more depressed than those living in urban areas (Economic Research Institute for ASEAN and East Asia, 2019). This finding might be due to young adults migrating to urban areas, which leads to an increasing number of older people experiencing empty-nest syndrome. This syndrome involves feelings of grief and loneliness for elderly parents whose children have left home for the first time, and it may increase the probability of depression among said parents (Md Nor & Ghazali, 2016).

Spirituality is an important element in older

people's lives; it underpins religious practices and beliefs. El-Gilany et al. (2018) found that older individuals who exhibited higher religiosity had lower depressive symptoms. Furthermore, in Winahyu and Sari's (2017) study, religiosity was significantly associated with depression and religious activity, showing the strongest relationship in the study (r = 0.71, p < 0.01). Thus, religiosity may lowest depression symptoms among older people who engaged with the religious activities at the mosque or church or attending the religion classes.

Scholars have reported the individual factors associated with depressive symptoms among community-dwelling older people, and the prevalence of depression is widely known. However, the evidence concerning multiple factors—bio-psychosocial and spiritual ones—is still inconsistent. The variables of sleep quality and spirituality as factors is minimal, and it only focuses on bio-psychological factors. In previous studies of community-dwelling elderly, multiple bio-psychosocial and spiritual factors have been addressed. Moreover, several of these studies have looked at countries in the Middle East (El-Gilany et al., 2018). The cultures, belief systems, and outlooks of the populations living in these countries, though, are significantly different from those of Muslims in Malaysia. To fill these gaps in the literature, we added sleep quality and spirituality as variables to measure the factors associated with depression; this will ensure that this study will conduct a comprehensive assessment with appropriate tools.

Additionally, there is a need to identify depression among community-dwelling older people living on the East Coast of Malaysia, particularly in Terengganu. The population of this state consists overwhelmingly of Malay Muslims (90%), who dedicate their last years of life to Allah. According to one study (Ismail et al., 2012), 77% of locals reported being keen to participate in religious and social activities in daily life. This study aimed to determine the prevalence and associated factors of depression among community-dwelling elderly living on the East Coast of Malaysia due to the paucity of data on depressive symptoms in this population.

Methods

A cross-sectional, door-to-door survey was conducted in a selected district in Kuala Terengganu, with multilayered stratification carried out in a number of subdistricts. The primary sampling unit was Terengganu. The second layer of sampling involved the selection of districts within the region, and Kuala Terengganu was chosen due to the high number of older people living there. The third layer of sampling entailed the selection of subdistricts within Kuala Terengganu; the lottery method was used to randomly select three subdistricts. The study lasted from December 2021 to July 2022. In total, 240 individuals aged 60 years or above agreed to participate. The participants were recruited based on the name lists given by the person in-charge of the selected subdistricts. The inclusion criteria were being aged 60 years or above, being a Malaysian citizen, and having lived in the Kuala Terengganu district for a minimum of three months. The exclusion criteria were residing in nursing homes or receiving respite care and having aphasia, deafness, and articulation disorders due to speech and communication difficulties. Older people with dementia or psychotic disorders were also excluded.

To collect data, this study used interviews based on a validated questionnaire that consisted of sections on sociodemographic characteristics; health status; cognitive, psychosocial, and functional factors; sleep patterns; and religious practices. The sociodemographic characteristics included age, gender, marital status, education level, living arrangements, and monthly income. Information on health status was obtained by asking the participants whether they had common chronic diseases; this could be verified based on the medical-appointment notebooks.

Depressive symptoms were assessed with the 15-item Geriatric Depression Scale, with a reliability of 0.68 (Teh & Hasanah, 2004). A score higher than five indicated a high-risk symptom.

Cognitive status was evaluated with the Elderly Cognitive Assessment Questionnaire, which has been validated in Singapore and employed as a screening tool among the elderly. A score of five or less indicates cognitive impairment with "probable" dementia. The sensitivity was 85.3%, and the specificity was 91.5%, with a Cronbach's alpha value of 0.73 (Kua & Ko, 1992). The short University of California Los Angeles Loneliness Scale (UCLA-8) was used to assess the level of loneliness, with a reliability of 0.85 (Swami, 2009). The Multidimensional Scale of Perceived Social Support (MS PSS-M) was employed as a brief measure of the social support perceived by an individual. MSPSS-M showed strong reliability, with Cronbach's alpha values of 0.77 and 0.76 for the Family-Significant Others and Friends subscales, respectively (Din et al., 2018). Functional status was measured using the ADL, which had a reliability of 0.85. Instrumental activities of daily living (IADL) had a reliability of 0.76 (Harith & Tan, 2020). The Pittsburgh Sleep Quality Index was employed to measure the quality and patterns of sleep among the participants, and it had a reliability of 0.74 (Farah et al., 2019). The Malay version of the Duke University Religion Index was used to assess religious involvement in daily life, with a reliability of 0.70 (Nurasikin et al., 2010).

SPSS Statistics for Windows, version 210 was utilized for data entry and analysis. Frequencies and percentages were calculated for the demographic data and dependence status. The categorical data were summarized as numbers and percentages. The Chi-square test determined the associated factor, while the phi value was used to determine the correlations among the categorical data. Binary logistic regression was applied to determine significant values. The variables with p-values lower than 0.05 at the bivariate level were introduced into the multivariable model.

The Ethics Committee of the International Islamic University of Malaysia (IIUM) approved this study on January 8, 2022 (reference number: IIUM/504/14/2/IREC 2022-003). The permission to conduct this study were sought from the Mukim officer on March 2, 2022, and the head villagers gave permission on March 10, 2022. Consequently, all the participants were briefed about the study and asked to provide written informed consent before the interviews. Therefore, the study followed all relevant ethical principles.

Results

A total of 240 individuals agreed to participate in this study. Table 1 shows the characteristics of the participants. Their ages ranged from 60 to 105 years. Females were more numerous (62%; n = 149) than males (38%; n = 91). The most common marital status was married (57%; n = 137), followed by widowed (35%; n = 84), divorced (5%; n = 12), and single (3%; n = 7). Most participants had received formal education (60%; n = 145), having attended at least primary school. The majority were not working (53%; n = 126) and living with their children (47%; n = 112), and their financial resources were less than RM 1,000 (62%; n = 149). Most of the participants had been diagnosed with hypertension (68%; n = 164), diabetes mellitus (45%; n = 109), and hyperlipidemia (33%; n = 79). Almost all were nonsmokers (93%; n = 223). All the participants were Malay Muslims and nondrinkers (100%).

Table 2 presents the depressive symptoms found among the participants. The symptoms' classification (normal to severe) is based on the scores of the Geriatric Depression Scale. The total prevalence of depressive symptoms in the sample was 24.6%. Among those who reported depression, 14.2% had mild symptoms, while 8.3% and 2.1% had moderate and severe symptoms, respectively.

Table 1. Demographic Characteristics of the Participants

Characteristics	Frequency (n)	Percentage
Gender		
Male	91	38%
Female	149	62%
Age group		
60–69	106	44%
70–79	100	42%
80 and above	34	14%
Marital status		
Married	137	57%
Single	7	3%
Widowed	84	35%
Divorced	12	5%
Education level		
No formal education	43	18%
Primary	145	60%
Secondary	36	15%
Tertiary	16	7%
Occupation		
Retired	89	37%
Unemployed	126	53%
Employed	25	10%
Financial status		
Less than RM 1,000	149	62%
RM 1,000–1,900	71	29.5%
RM 2,000–3,900	18	7.5%
RM 4,000–5,999	2	1%
Living status		
Living alone	22	9%
Nuclear family	101	42%
Living with children	112	47%
Living with relative	5	2%
Smoking		
Smoker	17	7%
Nonsmoker	223	93%
Alcohol intake		
Yes	0	0%
No	240	100%
Health status		
Hypertension		
Yes	164	68%
No	76	32%
Diabetes mellitus		
Yes	109	45%
No	131	55%
Hyperlipidemia		
Yes	79	33%
No	161	67%
Hyper/hypothyroidism		
Yes	7	3%
No	233	97%
Anemia		
Yes	7	3%
No	233	97%

Characteristics	Frequency (n)	Percentage
Heart disease		
Yes	33	13%
No	208	87%
Asthma		
Yes	18	8%
No	222	92%
Upper- and lower-tract gastrointestinal problems		
Yes	27	11%
No	213	89%
Hepatitis		
Yes	14	6%
No	226	94%
Renal problems		
Yes	29	12%
No	211	88%
Arthritis		
Yes	31	13%
No	209	87%
Gout		
Yes	24	10%
No	216	90%
Stroke		
Yes	19	8%
No	221	92%
Seizures		
Yes	14	6%
No	226	94%

Table 2. Prevalence of Depressive Symptoms

Classification	Frequency (n)	Percentage
Normal	181	75.4%
Mild depression	34	14.2%
Moderate depression	20	8.3%
Severe depression	5	2.1%

Table 3 shows the factors significantly associated (p < 0.05) with depression based on single logistic regression. Older people who were single, divorced, and widowed (OR = 2.67; CI = 1.46; 4.87) exhibited depressive symptoms. Those who lived with a spouse (OR = 0.35; CI = 0.18; 0.69) and who had chronic illnesses, such as asthma (OR = 2.68; CI = 1.01; 7.15) and cognitive impairment (OR = 0.38; CI = 0.39; 0.19), had depressive symptoms. Older individuals who felt lonely (OR = 21.11; CI = 9.87; 45.18) and without social support (OR = 4.27; CI = 2.29; 7.92) were also found to show signs of depression. Furthermore, daily functional status (i.e., ADL) was found to be im-

paired (OR = 6.45; CI = 3.40; 12.24), and the results for instrumental daily functional status (i.e., IADL) were OR = 9.34, CI = 4.75, and 18.38. Finally, older people with low intrinsic religiosity (OR = 5.69; CI = 2.09; 15.49) exhibited depressive symptoms.

Table 4 presents the risk factors significantly associated with depression after controlling for confounders with forward and backward elimination based on the multivariable logistic regression model. This analysis eliminated the variable that improved the model and repeated this process until no further improvements were possible in order to obtain the final set of inde-

Table 3. Factors Associated with Depression Based on Simple Logistic Regression

Variables	B	Crude OR	95% CI	Wald	df	p
Marital status						
Married	-	-	-	-	-	-
Single	0.98	2.66	1.46; 4.87	10.10	1	0.001
Living arrangement						
Living with children	-	-	-	-	-	-
Nuclear family	−1.04	0.35	0.18; 0.69	9.11	1	> 0.003
Living with relative	−0.68	0.51	0.06; 4.69	0.36	1	0.55
Living alone	−0.71	0.76	0.26; 2.10	0.28	1	0.60
Asthma						
No	-	-	-	-	-	-
Yes	0.99	2.682	1.01; 7.15	3.89	1	0.05
Cognitive impairment						
Normal	-	-	-	-	-	-
Impaired	−0.95	0.39	0.39; 0.19	7.59	1	0.006
Loneliness						
Not lonely	-	-	-	-	-	-
Lonely	3.05	21.11	9.87; 45.18	61.74	1	0.001
Social support						
Good Social Support	-	-	-	-	-	-
Poor Social Support	−1.45	4.26	2.29; 7.92	20.90	1	0.001
Functional status (ADL)						
Good ADL	-	-	-	-	-	-
Impaired ADL	1.87	6.45	3.40; 12.24	32.60	1	0.001
Functional status (IADL)						
Good IADL	-	-	-	-	-	-
Impaired IADL	2.24	9.34	4.75; 18.38	41.88	1	0.001
Religiosity						
Abundant	-	-	-	-	-	-
Scarce	−1.74	5.70	2.09; 15.49	11.63	1	0.001

CI = confidence interval, df = degree of freedom.

Table 4. Factors Associated with Depression Based on Multiple Logistic Regression

Variables	B	aOR	95% CI	Wald	df	p
Marital status						
Single	1.49	4.42	1.22; 15.96	5.15	1	0.02
Asthma	2.65	14.14	2.83; 70.5	10.44	1	0.001
Lonely	3.05	21.11	9.87;45.18	61.74	1	0.001
Poor social support	1.12	3.06	1.18; 7.93	5.27	1	0.001
Impaired ADL	1.22	3.39	1.22; 9.39	5.49	1	0.01
Impaired IADL	1.81	6.09	1.95; 19.0	9.66	1	0.002

The Enter Multiple Logistic Regression model was applied.
Multicollinearity and interaction terms were checked and not found.
The Hosmer-Lemeshow test ($p = 0.479$), classification table (overall correctly classified percentage = 90.4%), and area under the Receiver Operating Characteristic (ROC) curve (93.7%) was applied to check the model fit.

pendent risk-factor variables for depression. The multivariate model revealed that an older person who was single risked having depression (aOR = 4.42; CI = 1.22; 15.96). Loneliness (aOR = 21.11; CI = 9.87; 45.18) and poor social support (aOR = 3.06; CI = 1.18; 7.93) were also significantly associated with depressive symptoms. Moreover, older individuals with impaired instrumental function (aOR = 6.09; CI = 1.95; 19.0), impaired functional status (aOR = 3.39;

CI = 1.22; 9.39), and asthma (aOR = 14.14; CI = 2.83; 70.5) were at risk of depression.

Discussion

The prevalence of depression among the participants was 24.6%, which is slightly higher than the figure reported by Aznan et al. (2019) (19.3%). This might be because the latter study was conducted in a structured-living residence and before the COVID-19 pandemic, which might have alleviated people's depressive symptoms. A previous community-based study reported a high prevalence of depression among older people in some South Asian countries, ranging from 34.4% in India (Pilania et al., 2019) and 40.6% in Pakistan (Bhamani et al., 2013) to 44.2% in Bangladesh (Cherry et al., 2012), 36.94% in China (He et al., 2016), 18.5% in Thailand (Charoensakulchai et al., 2019), and 34.6% in Singapore (Li et al., 2015).

In the present study, being single and a lack of social support were associated with depressive symptoms due to adverse life events such as losing a spouse or close friend. The people who find themselves in these situations lack companionship and family support (Rajapakshe et al., 2019; Rashid & Tahir, 2015; Thilak et al., 2016). The reduced presence of a family member, close friend, or significant other may cause a lack of social integration, which makes it difficult to share one's feelings, think positively, and interact. This can lead to depression (Ashe & Routray, 2019; Bincy et al., 2021; Khaltar et al., 2017; Manandhar et al., 2019; Rashid & Tahir, 2015; Konda et al., 2018). The studies by Li et al. (2015) and Widiani et al. (2023) discovered the greatest negative association between perceived social support and depressive symptoms among the elderly. Poor support can create a sense of insecurity among community-dwelling older people and might increase their risk of developing depression.

A lack of social interaction with and support from family members and the wider community will result in social isolation and loneliness.

In the present study, loneliness was found to be significantly associated with depressive symptoms, with an almost 21-fold increase in the risk of developing the disorder. This finding is similar to the results of Hussein et al. (2021), who discovered that 32.6% of older people living in the community had experienced social loneliness and 39.9% had felt emotional loneliness. This evidence is also supported by Li et al. (2015), who found that loneliness was significantly associated with older individuals' depressive symptoms in their model; this demonstrates that older people who felt loneliness tend to become more depressed. Similar results have come from other countries in Asia (Ashe & Routray, 2019; Simkhada et al., 2018; Song et al., 2019). Furthermore, Shao et al. (2017) discovered that depression was significantly associated among older people who felt loneliness due to had lack of social interaction and had a problem with spousal relationships. Tanjanai et al. (2017) noted that about 48% of the older people who were spending their time at home rather than with their relatives and friends had. Other than that, the odds of depression in the elderly who met friends and relatives were less than 60% compared to the elderly who lived at home alone. This result was similar with the presents study that found that loneliness was significantly associated with depressive symptoms. Therefore, one practical implication is that loneliness should be targeted when treating depression in community-dwelling older people.

Asthma was found to be associated with a nearly fourfold increase in the risk of developing depression. This chronic illness has been found to be significantly related to depressive symptoms in several studies (e.g., Dai et al., 2019; Güzel & Kara, 2020; Park et al., 2016; Yadav et al., 2020). This could be due to asthma's symptoms and the prolonged use of medications that they entail, as well as the dependence on family members for ADL (Rashid & Tahir, 2015). Many scholars have found that impaired ADL is associated with depression in the elderly (Aznan et al., 2019; Kavithai et al.,

2018; Simkhada et al., 2018; Tanjanai et al., 2017). Two other studies (Disu et al., 2019; Shao et al., 2017), discovered that limited ADL were significantly associated with depressive symptoms in older people due to the degenerating processes that lead to physical frailty, chronic illnesses, and disability. The present study found that impaired ADL created a 3.39 times greater risk of having depression compared to being independent. Older people with impaired daily function tend to have negative emotions (Shao et al., 2017) and an inability to leave their homes (Manandhar et al., 2019). A longitudinal study conducted in Japan by Kiyoshige et al. (2019) reported that depressive symptoms were significantly associated with IADL decline in people aged 70 years and above. Similarly, the present study found that older people with impaired IADL status had a 6.09 times greater risk of having depression compared to those who did not have such status. This might be due to symptoms such as decreased energy, fatigue, loss of interest, and poor concentration, which are commonly found in the elderly who have depression (Hamzah et al., 2018). Vanoh et al. (2016) also reported that impaired IADL status was a risk for depressive symptoms and that IADL limitations were due to being burdened with chronic illnesses. Therefore, early screening for depression should be initiated during follow-up treatment in hospitals. The participation of family members is also important to reduce the depressive symptoms of older people who have impaired ADL and increase their quality of life (Puspadewi & Rekawati, 2017).

The strengths of this study include a high response rate, which was adequate to detect the prevalence of the associated factors, a strong methodology, and the use of trained enumerators for data collection. Unfortunately, the cross-sectional nature of the study design makes it impossible to determine causation. Still, the data can be used as an initial benchmark for further intervention studies aimed at improving the prevention of depression among the elderly. Furthermore, there might have been some recall bias because respondents were asked to retrieve events that happened in the past.

Conclusion

The prevalence of depressive symptoms in this study was moderately high compared to the previous studies conducted in Malaysia. Being single, having a chronic disease (asthma), having poor social support, being lonely, and having impaired functional status and instrumental function might contribute to the development of depressive symptoms among older people. Hence, screening for depression is crucial among the elderly as this population had a high risk for undetected depression which may lead to isolation, despair, and possibly suicide if not detected earlier. The data analyzed in this study can be used as a preliminary benchmark to guide the development of prevention programs aimed at reducing depressive symptoms among Malay community-dwelling older people. Understanding the biological, psychological, sociological, and spiritual factors that contribute to depression in older Malays can help nurses make careful decisions about the prevention strategies to be used. Based on the findings of the present study, prevention programs should use several strategies. For example, patients should learn to cope with feelings of loneliness and be encouraged to take part in activities that involve the community, including religious ones (e.g., prayer groups, Bible-focused study groups, and religious education), which have been shown to be effective in supporting patients in transforming their negative thoughts into positive ones. This can reduce the occurrence of depressive symptoms.

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