

Factors Associated with Depression Among Older People in Community Dwelling: A Narrative Review

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ABSTRACT

The increasing the aging population has been accompanied by an increasing number of older people who are suffering from depression as evidenced by the growing incidence and prevalence rate. Therefore, this review aims to identify the recent findings on the factor associated with depression among older people in community dwellings. The population of the study is among older people who are aged of 60 years old and above, living in the community dwelling by living alone or living with spouse, children, or others in their own house or children's house. Several online databases such as Wiley Online Library, Springer Link, Science Direct and Pub Med were conducted using the IIUM library database. A total of 49 articles were reviewed. The review revealed that depression among older people had various factors such as sociodemographic, poor outcome in health status, cognitive level, social support, physical performance, sleep quality, low level of loneliness, and lack of spiritual support. Most of the studies found all these factors were significant to depression among older people in community dwellings. Knowing these factors hinders early diagnosis and getting early treatment to improve quality of life.

Keywords: Factor, Depression, Mental health, Older people, Aging, Community-dwelling

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INTRODUCTION

Aging has become a major global phenomenon. The global population aged 65 years or over numbered 727 million in 2020 and over the next three decades, the global number of older persons is projected to more than double, reaching over 1.5 billion in 2050 (1). The share of the global population aged 65 years or over is expected to increase from 9.3 percent in 2020 to 16.0 percent by 2050 (2)

As the older population rises, older people facing various challenges that are associated with, aged-related changes and unpleasant experiences. These populations are vulnerable to depression due to complex multifactorial interactions following a diverse process in all aspects of life including biological, social, psychological (3), and spiritual. The World Health Organization (WHO) reported that depression occurs in 7% of the older people population and 5.7% of total years lost due to disability (YLD) in those aged 60 and above (4). Epidemiological studies from South Asian countries reported a high prevalence of depression symptoms among older people, ranging from 34.4% in India (5), 40.6% in Pakistan (6), 44.2% in Bangladesh (7), 36.94% in China 2016 (8), 18.5% Thailand (9), 34.6% in Singapore (10) and in Malaysia 19.3% reported (11). According to American Association for Geriatric Psychiatry, common symptoms of depression in the elderly include persistent sadness, feeling slowed down, excessive worries about finances and medical health problems, frequent tearfulness, feeling worthless or helpless, change in weight, pacing or fidgeting, difficulties in concentration, sleeping, somatic complaints like unexpected physical pain, gastrointestinal problems, withdrawal from social activities (12).

The multiple factors of geriatric depression that may contribute to health additionally allows for the risk factor of unhealthy aging or development (13). Moreover, the connection between biological, psychological, sociological fields(14,15) and spiritual (16) variable may have relevance in identifying the associated factor that contributes development of depression symptoms among older people in a community dwelling. The biological factor is included age, gender, physical mobility, physical health, sleep pattern and the

psychosocial factor include isolation, loneliness, living alone, and retirement/unemployed (3). While for social factor include marital status, level of education, financial status, social support (13) and, for spiritual factor include frequency of attending to prayer house, frequency of spending time in religious activities, presence of the divine, feeling security with faith and religious practice in life (17).

This review aim is to investigate and compile findings of research regarding factors associated with depression symptoms among older people in community dwelling. It hopes to generate information for healthcare providers, families and older people and can used as guidelines for the development of appropriate interventions to prevent depression in older people.

The review questions were:

1. What is the prevalence of depression among older people in community-dwelling?
2. What is the associated factor of depression among older people in community-dwelling?

METHODS

This narrative review was conducted by searching online databases including Wiley Online Library, Springer Link, Science Direct and Pud Med for articles and review papers using the keywords of "factor", "depression", and "older people". The inclusion criteria were articles published between 2015 - 2020, published report, available full text, and studies on the prevalence of older people who had a depression symptom in community-dwelling and factors associated of depression among older people. The articles published in a language other than English were exclude. A total 49 eligible were reviewed. Eight factors emerged from chosen articles which include socio-demographic, health-related past medical and presence disease, level cognitive among older people, level of loneliness, social support, physical performance, sleep quality, and spirituality.

RESULTS

Socio-Demographic

The association between depression and sociodemographic data among older people in community dwelling has widely measured. A variety of the studies have revealed that older female adults than older men adult suffered from depression. There 1.7 times more likely to have depression than males (aOR=1.72, 95% CI: 1.1, 2.66). This may be due to females was bear the burden of household responsibilities (8,18-34). Several of studies show that there are no sex differences in the prevalence of depression in older people. For example, a several studies (10,11,23,35-38) found no statistically significant differences between women and men. Studies shown that depressive symptoms were found in the oldest age groups (8,25,36,37,39-43) but some studies had depressive symptoms in young elderly 60-64 years old (44,45) and aged 66-75 years old (20,27,30,46). Being unmarried followed by the widowed and divorced was significantly associated with depression (adjusted OR=3.73, 95% CI: 2.23-6.25) because the older people felt lonely when they were living alone without a partner and loneliness (44). Severe depression was highest among the participants whose highest level of education was primary school followed by those illiterates, with secondary & tertiary education and with non-formal education χ^2 (3, N=2005) =29.12, $p < 0.001$. Unemployed participants had a higher odds of having severe depression (OR=1.3) (47). Illiteracy among older people was contribute a factor associated with depression, which will limit older people to have the opportunity to engage in better work in employment or unemployment, and the level of socio-economic status is low. As result, it may lead to prolonged stress and a negative perception of social support and contribute toward depression (47).

Health-Related Past Medical and Presence Disease

The factors of poor health status, chronic diseases such as stroke, loss of hearing, poor eyesight, cardiac disease, chronic lung disease, chronic pain, hypertension diabetic mellitus or the interaction between medications are the associated factor for depression among older people. Almost older people were having lifestyle diseases like diabetes mellitus and/or hypertension were two to three times at risk of having severe depression (aOR; 2.76[CI= 1.27-

5.98] and aOR: 2.5[CI = 1.06-4.36], respectively. Most of studies (5,8,26,42,48,49) found that the presence of multiple chronic diseases was a significant associated factor for depression symptoms. As result, multiple chronic diseases were worsened the state of health due to symptoms of the diseases itself and decreased quality of life (8), which is they were dependent on someone in daily life (19,20,49-51). For example, a chronic disease such as hypertension (adjusted OR 1.32, 95% CI 1.02-1.71, $p < 0.05$) and osteoarthritis (aOR 1.57, 95% CI 1.19-2.06, $p < 0.01$) have significant associated with depression (20,52). Hypertension can cause alteration of the basal ganglia-frontal cortical circuit as result may lead to depression while osteoarthritis may cause chronic pain, fatigue, disability and may affect mood which leads to depression (22,53).

Level Cognitive Among Older People

Dementia is defined normal ageing process accompanied by syndrome behaviour, cognitive including executive function, attention and memory, and also emotional disturbances due to the degenerative of a part of the brain (54). As result, older people may experience of poor memory function whereby they are unable to function well in daily life were increase depression (55). Depression plays a risk factor for cognitive impairment, which is that older people who lie with cognitive impairment have three times the risk for depression compared to an older people with normal cognitive (11). This is also supported by another study that found that older people with dementia were 3.3 times more likely to develop depression than others (43). It might be due to degeneration of the brain such as brain volume, loss of integrity of the myelin sheath, thinning of the cortex, and impaired secretion of neurotransmitters like serotonin and acetylcholine. When serotonin was impaired, simultaneously it will be impaired mood which leads to depression (55). There a varieties studies that reported cognitive impairment was associated with geriatric depression among older people (20,43,47,50,55,56). There was one study in China that reported that the prevalence rate of mild cognitive impairment in older people with depression was higher than that in those without depression (36.4% vs 14.2%, $P < 0.001$) (57). In longitudinal depression analysis, of the

212 persons with prevalent mild cognitive impairment, 6 person (2.8%) developed depression compared with 29 (1%) 26 in the nonexposed group (58).

Level of Loneliness

The living arrangements of older people will be changed when they experience life changes such as retirement, the death of a spouse, and the outmigration of their children. As a result, older people were left behind and living alone. According to the 2000 census report, about 7% of the 1.4 million people 60 years and over in Malaysia live alone (59). In geographic terms, older people living alone are concentrated in rural areas. The data indicates that 9% of those in rural areas and 5% of those in urban areas are living alone (60). Older people, who were living alone were likely to have a lack emotional support and social interaction will result in increasing feelings of loneliness which is associated factor with depression symptoms. Most of studies in varies country, found that living alone were associated with depression (8,22,40,47,61,62,23,24,27-29,31,36,37). Living alone may reduce the experience of social unity, lack of emotional support, and may experience loneliness. The prevalence of loneliness among older people in the United Kingdom was reported in 9% of those aged 65 years or above lonely (63) and 9.9% of older people at aged 50 years above reported in South Africans (64). Moreover, a study in Taiwan found to be 10.5% of older people had loneliness feeling (65), 37.6% in India (66), 64% in Indonesia (67), and Malaysia was 20.9% (68). Older people who are retired were 4 times more likely to have depression compared to older people working individuals (aOR = 3.94, 95% CI (2.11, 7.35) (18). This might be due to retired person may not have sufficient chance to meet with other people to share ideas and feeling. Other than that, they might feel isolated and have no support.

Social Support

Social support can be defined as "social resources that persons perceived to be available or that are actually provided to older persons" (70). A study conducted in Sri Lanka showed that low perceived social support was significantly associated with depression (31) and another study found that lower perceived

support was significantly associated between depression (OR = 247, 95%CI: 1.61-3.78) (48). A similar study done in Malaysia (47) found that having a low or moderate support, the source of emotional support, and loneliness are a risk factor for severe depression. Moreover, a study done in Singapore using Duke DSSI for domain social activities and social networks have shown that three main psychosocial factors (psychological resilience, social support, and loneliness) found that a strong negative association between perceived social support and depression is revealed ($\beta = -0.18$, $p < 0.05$) which is the older people who had a higher perceived social support were felt less depressive symptom rather than those who were had lower perceived social support (10). Older people who were retired had lower social support from a friend or any significant others, due to the very lack involve with social activities, meetings or discussion, and loss of social contact with close friends were associated with the development of depression (35,36,44,56,71). Being above 80 years old person had very lower of social support were 1.4 times more likely to developed depression symptoms (OR = 1.91, 95% CI (0.88-1.33) due to lack of opportunity to interact with other people to share their feeling and thought, also their health status were limited them to do so (43). Furthermore, bonding with family members is related to psychological wellbeing, absence of family support was found strongly associated to had depression (OR=1.48, 95% CI (1.23-1.638) (43). Family support was significantly influential in the part of older people life's whereby children (predominantly adult male children) become important sources of support for older people (6,27,41,43,47). Lack of this support can create a sense of feeling insecure and yet might increase their vulnerability to depression.

Physical Performance

Activity daily living (ADL) is a task performed by older people on a daily living basis. A study reported that depression was significantly higher with the presence of older people who were unable to carry out more than three activities daily living with 3.8-fold (1.8-8.4) higher than older people who are independent (30). A similar study found that older person with marked dependence on ADL was a significant risk factor for elderly depression

($p < 0.01$, aOR: 3.17), and it is three times higher risk to develop depression compared to older people who were independent (11).

The inability to leave home due to physical immobility and physical health problem were associated factors for depression (aOR = 5.62, 95% CI: 1.76-17.99) compared to older people who were able to leave home (26) and there is another study found a similar finding (aOR = 1.4 95% CI 0.9-2.3) (41). In other study done in Bangladesh (32) and in China (36) found that the older people who are limited in ADL showed associated depression with finding (50.0% vs. 29.2%; $\chi^2 = 7.237$, $df = 1$, $p = 0.007$) and (OR=2.27 95% CI 1.91-2.69) respectively. It might be due to aging leading to general physical frailty and the presence of chronic disease and disability can further impaired levels of activity daily living (ADL). Physical frailty such as being bedridden for the past 6 month were significantly associated with depression (OR= 5.29; 95%CI:1.21-23.04) (22). Moreover, the presence of chronic disease such as osteoarthritis was found associated with depression with finding (OR=4.91; 95%CI: 1.39-17.28) and osteoarthritis were experiencing of pain, discomfort and limited the ADL (22). A similar finding found difficulties in mobility and ADL due to pain and discomfort (OR=1.92, $p \leq 0.05$) (52). Furthermore, low-level physical activity with measurement of Functional Activity Question (FAQ) was significant for depressive symptoms ($\beta = -0.154$, $p = 0.014$) among older people who had mild cognitive impairment (56). Inability to perform Instrumental activity daily living was found to have significant association with depressive symptoms (20) and this study also found that osteoarthritis had a significant association with depression which is chronic pain due to osteoarthritis leading to limited IADL, which causes depressed mood. Moreover, another study found that the Lowton-IADL and Physical Performance Battery (SPPB) score indicated a significant correlation with the Geriatric Depression Scale (GDS-15) score in a negative direction with $r = -0.171$ and $r = -0.194$, respectively ($p \leq 0.01$) (38). It might be due to depression associated with decreased in energy, fatigue, loss of interest, and poor concentration, which is a typical depression symptom in older people.

Sleep Quality

Poor sleep quality most often occur among older people and is associated with geriatric depression symptom. A study found that 69.5% of older people sleep less than 6 hours (24), which is that older people who had less than 6 hours of sleep found significantly associated to depression compared to older people who had more than 6 hours of sleep (50). Insomnia was associated with depression among older people with OR = 6.2 CI: 4.1-9.4) (29). The prevalence of poor sleeper is varying, especially in China. The report was ranging 78% in China (72), 41.5% in Shanghai, China (73), 30.6% in Liaoning, China (74). From these prevalence, there was one study was found that the older people perceived stress partially mediated the association between poor sleep quality and depression symptoms (35% proportion mediated) (74) Moreover there study in India among older people with poor sleep patterns in rural area were more suffer from depression with finding (aOR, 95% CI=3.45,2.08-5.73) (21) while the other similar study in India found that poor sleep quality was found to be significantly associated with symptoms suggestive of depression in accordance with GDS-5 score ($p = 0.014$) which is given the impact on psychosocial aspect (75). A study in Malaysia, found poor sleep quality (aOR=3.6, $p \leq 0.001$) was a significant predictor of depression among older people (47). Prolonged impaired sleep patterns may cause fatigability, tension, and irritability which can display depression symptoms. Also, poor sleeping pattern had significantly associated with the level of psychological distress which is present with depressive symptoms (76). Overall, a finding of studies had proven that older people with sleep problems were more likely to develop depression compared to those with absent sleep difficulties.

Religiosity

A study showed that older people with the highest religious activity were less likely to develop depression whereby marriage and religiosity activities may increase social ties associated with lower levels of depressive symptoms (20,27). A similar study found the social network ($r = -0.154$; $p \leq 0.001$), social support ($r = -0.128$; $p \leq 0.002$) and religiosity ($r = -0.119$; $p = 0.004$) were negatively correlated with depression among older person with

experienced life event (71). Meaning that older people with a lack of social networking, social support, and religiosity were likely to have a risk of depression. Whereas the other study showed that depression significantly higher among older people with no or low level of religiosity with OR =3.4 (CI = 2.3-5.0) (29).

Moreover, a study showed there 58% (n=1089) of respondent without depression were active in attending the religious classes compared to their counterpart 42% (n=787) (20). The other study done in Indonesia revealed that there was relationship between religiosity with strong relationship between rituals and the finding was religiosity significant negatively correlated with depression ($r = 0.71$, p -value ≤ 0.01), which is the older people who practice a higher religiosity in daily life were had lower depression (77). Also, intrinsic religiosity was found to reduce the effect of depression on cognitive function in older adults with finding ($\beta = 0.092$, $p = 0.023$) (78). As conclusion, the participation in physical, social, and religious activities can improve the spirit and mood and has a positive effect on mental well-being.

CONCLUSION

The prevalence and associated factor of depression has widely reported among older people in community dwelling. Older people are vulnerable to had depression symptoms, hence early detection and prevention need to conduct before the psychiatric illness is occur. Then, through the literature review, the finding that the factor associated with depression among older people in community dwelling were related to biopsychosocial spirituality which including sociodemographic characteristics. These factors are essential to improve the understanding of depression, especially among older people, family, and healthcare providers. Therefore, policy maker to plan appropriate scanning programs and preventative strategies for older people in community dwelling.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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