IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

Social Category And Geriatric Depression: Evidence From Elderly Populations In Uttarakhand

Ms. Anjali Suyal*, Dr. Rajendra P. Mamgain **, Ms. Anamika Bhardwaj *, Dr. Rajesh Bhatt **** Dr. Harsh Dobhal*****

*Research Scholar, Department of Psychology, Doon University, Dehradun, Uttarakhand

**(Professor), Department of Economics, Doon University, Dehradun, Uttarakhand

*** Research Scholar, Department of Psychology, Doon University, Dehradun, Uttarakhand

**** (Assistant Professor), Department of Psychology, Doon University, Dehradun, Uttarakhand

*****(Visiting Professor), School of Media and Communication studies, Doon University, Dehradun, Uttarakhand

Corresponding Author : Dr. Rajesh Bhatt

Department of Psychology, Doon University, Dehradun, Uttarakhand

Abstract

Mental health is essential for everyone, regardless of their socioeconomic status or social category. However, if depression or other psychological problems are found to be more prevalent in a particular social group, it becomes important for policymakers to design need-based interventions that specifically address the vulnerabilities of that group. The psychological problems become even more severe when we look at the elderly population. Older adults are often doubly marginalized—first because of their age and declining social role, and second due to the cultural silence around mental health. Geriatric Depression is a serious concern of the Elderly around the world, particularly in the state of Uttarakhand. With increasing cases and stigma associated with mental health, it becomes difficult to handle the scenario. A complex interplay of biological, psychological, and social elements often leads to depression. This research paper has covered 1200 elderly individuals aged 60 and over who were chosen using the cluster Sampling technique from 18 blocks across 6 districts, which included 90 villages in the Kumaon region and 90 villages in the Garhwal region. It found significant correlation between

depression levels and social categories in elderly population of Uttarakhand State. Findings of this research suggest that depression is relatively more common in OBC and SC groups compared to the General group, while ST lies somewhere in between. The level of depression is high in all categories. All elderly people of Uttarakhand need psychological intervention irrespective to their categories to improve their well-being.

Keywords: geriatric depression, depression, Social category, Uttarakhand, elderly

Introduction

India's life expectancy has significantly increased over the years may be due to advancements in medical practices, life-saving medications, and infectious illness prevention. It is evident by the percentage of aged people (60 years and older) that will likely get double from 9% in 2015 to 19% by 2050 (United Nations Department of Economic and Social Affairs, 2019). India currently has the second-largest population in the world, with 140 million persons 60 years of age and over (Bloom et al., 2021). According to Banerjee et al. (2023), India's senior citizens are especially susceptible to mental illness and depression. Specifically, they discover that 31% of Indian women and 26% of men between the ages of 61 and 70 exhibit signs that point to a high probability of depression. A common but severe disorder, depression influences how we feel and carry out daily life (APA, 2021). According to the Global Burden of Disease, an estimated 45.7 million people in India are living with depressive disorders (Sagar, R. et al., 2020).

According to the National Health Systems Resource Centre (2021) in Uttarakhand, 69% of elderly women and 15% of older men live in rural areas where they are totally dependent on others for their financial requirements, whereas 64% of older women and 24% of older men live in urban areas. Additionally, Uttarakhand's population aging has important political, social, and economic aspects because of a number of causes, chiefly the higher percentage of the elderly and the out-migration of younger individuals. Tiwari (2000) found that psychiatric illness is far more prevalent in the old population (43.32%) than in the non-elderly group (4.66%),). This percentage is expected to rise in India if appropriate interventions are not introduced. Still many members of today's generation of old people were raised in environments that discouraged expressing emotions, which makes accurate diagnosis more difficult (Evans et al., 2000). Additionally, depressive symptoms like fatigue or discomfort are frequently confused with aging or medical illnesses. Physical signs of aging, such as a stooped posture or wrinkled face, can significantly affect how people see older people, often leading to assumptions of depression (Evans et al., 2000). Depression is becoming a significant public health concern, especially among the elderly in the Haldwani Block of Nainital District, Uttarakhand. Those who are less educated, lack income, and depend financially on others are particularly vulnerable. The loss of a spouse further exacerbates their condition. Higher rates of depression were noted among females, widowed individuals, the illiterate, those with low socioeconomic status, the financially dependent, and those experiencing disturbed sleep (Bartwal, J. et al., 2017).

According to APA dictionary of psychology, depression is defined as *"a negative affective state, ranging from unhappiness and discontent to an extreme feeling of sadness, pessimism, and despondency, that interferes with daily life. Various physical, cognitive, and social changes also tend to co-occur, including altered eating or sleeping habits, lack of energy or motivation, difficulty concentrating or decisions making, and withdrawal from social activities. It is symptomatic of a number of mental health disorders."* Geriatric depression is a common but often overlooked and undertreated mental health condition in older adults. Its symptoms may be difficult to identify because they frequently include anxiety, physical complaints, cognitive problems, and can be complicated by other medical or neurological illnesses. Both major and minor forms can significantly affect quality of life and increase mortality risk if untreated, highlighting the need for careful assessment and comprehensive management in the elderly population (Lapid & Rummans, 2003).

Depression is increasingly recognized as a major public health issue, with more than one in three elderly individuals in India experiencing it (Pilania, M., 2013). Sahni, B. et al. (2020) A rural community in northern India reported a higher prevalence of depression among the elderly, at 41%. A systematic review and meta-analysis reported a pooled prevalence of depression among the elderly in India at approximately 32.9% (Mayank & Khamb, 2025). This indicates a significant public health concern, with depression being common in older Indian adults. Paul et al. (2023) found gender differences in depression prevalence, with 7.4% of elderly men and 9.5% of elderly women experiencing depression in a large nationally representative sample from the Longitudinal Ageing Study in India (LASI). Kumar et al. (2023) identified higher depressive symptoms prevalence in urban elderly (22%) compared to rural elderly (17%), suggesting environmental and social factors contribute to variability in mental health among older adults.

Evidence suggests that major depression can negatively affect chronic medical diseases (Katon, W., & Ciechanowski, P., 2002). Depression in Indian elderly is associated with factors such as chronic physical illness, social isolation, financial dependency, and lack of social support (Vishwakarma et al., 2023). Also, Blanchard et al. (1994) found untreated depression in older adults can have serious clinical and social consequences, reduced quality of life, and increase dependency on caretakers. Additionally, dementia and depression were more common in older adults (Seby et al., 2011). In rural Odisha, many older adults experience depression, mainly due to weak family support and their reliance on others for physical help and financial needs (Antony, A. et al., 2023).

Some major risk factors for depression in the elderly include having bilateral hearing impairment, living in a nuclear family, being physically inactive, handling all household chores, having two or more chronic illnesses, rarely participating in family decision-making, having sleep disturbances within the past 12 months, and having two or more chronic illnesses (Behera et al., 2016). Among older adults, depression is closely linked to both higher levels of morbidity and increased disability (Cole & Dendukuri, 2003). Marmamula, S., et al. (2021) found that depression was most common among those with both (VI) and hearing impairment (HI) (60%), compared to VI alone (20.9%) or HI alone (37.8%). Elderly with dual

sensory impairment (DSI) were about five times more likely to experience depression. It emphasized the importance of screening and referral for depression in elderly with combined vision and hearing loss.

The proportion of older adults in India's population is steadily rising, reflecting a significant demographic change (Marmamula, S., et al., 2021). The shift from joint families to nuclear households, coupled with urbanization and broader social changes, has resulted in elderly people increasingly living alone, with only their partner, or in care homes (Marmamula, S., et al., 2021). Also, Living in a nuclear family, being a woman, being single, widowed, or separated from one's spouse, having co-occurring health illnesses, particularly cardiovascular and visual impairments, and being economically dependent have all been linked to depression (Seby et al., 2011). It is also associated with maladaptive health risk behaviours and psychobiological factors (Katon, 2011). In individuals who are already at risk, psychological adversity and genetically induced physiological changes, such as financial difficulty, disability, social isolation, caregiver responsibilities, loss, and relocation, can either cause or increase the incidence of depression (Alexopoulos, 2005). Due to the elevated risk, people with many chronic diseases should undergo routine depression screens (Behera et al., 2016).Among older adults, poverty and poor physical health increase the likelihood of depression, whereas strong social support serves as a protective factor (Rajkumar, A. P., 2009).

The majority of countries allocate less than 1% of their overall health budget to mental health (Evans et al., 2011), indicating that mental health services in India are still in their infancy (Kumar, 2005). Goel et al. (2014) found that there is a strong correlation between the number of depression patients and decadal age progress. In the long run, recovery from depression in older adults is usually partial, and the chances of relapse are high (Jhingan, Sagar, & Pandey, 2001; Mitchell & Subramaniam, 2005). Since depression and seeking treatment for mental health issues are still stigmatized, older people often intentionally deny ever experiencing they are suffering from depression (Evans et al., 2000).

Mental health is essential for everyone, regardless of their socioeconomic status or social category. However, if depression or other psychological problems are found to be more prevalent in a particular social group, it becomes important for policymakers to design need-based interventions that specifically address the vulnerabilities of that group. In India, mental health remains one of the most neglected areas of public health, largely because of the stigma associated with it. People often do not seek help or engage in preventive practices, since mental health is still not widely normalized in public discourse or daily life. The problem becomes even more severe when we look at the elderly population. Older adults are often doubly marginalized—first because of their age and declining social role, and second due to the cultural silence around mental health. In states like Uttarakhand, the issue is compounded by large-scale out-migration of the younger population, leaving elderly parents and grandparents to live alone in villages without emotional or social support. This social isolation increases their risk of depression and anxiety. The situation is further complicated in remote rural areas, where access to basic healthcare itself is limited. In such places, imagining a structured system for mental health care is often unrealistic. The absence of trained

professionals, lack of awareness, and infrastructural barriers make it almost impossible for marginalized groups, particularly rural elderly individuals, to receive timely psychological support.

The systematic exclusion and experience of social stigma faced by lower caste groups may contribute to chronic stress and poor mental health (Gupta, Coffey, 2020). The differences in psychological problems among social categories like General, OBC, SC, and ST in India primarily may arise due to social disadvantage, discrimination, and economic inequalities that disproportionately affect marginalized groups such as Scheduled Castes (SC) and Scheduled Tribes (ST). These factors may contribute to higher levels of stress, anxiety, depression, and other mental health issues in these groups. Underscoring the urgent need to prioritize their upliftment and inclusion. It can be done mainly by increasing the number of researches on the marginalised communities. So, this paper focuses on Geriatric Depression on different social categories mainly General, SC, ST and OBC in Uttarakhand State.

Methodology

Objective

To study the relationship between the level of Geriatric Depression in the context of social category.

Hypothesis

There would be no significant corelation between Geriatric Depression and social category.

Sample

The participants included 1200 elderly individuals aged 60 and over who were selected using the cluster Sampling technique from 18 blocks across 6 districts, which included 90 villages in the Kumaon region and 90 villages in the Garhwal region : Khatima, Sitarganj, and Rudrapur from US Nagar; Munsyari, Munakot, and Pithoragarh from Pithoragarh; Sult, Bhikiyasan, and Hawal Bagh from Almora ; Chakrata, Sahaspur and Doiwala from Dehradun; Yamkeshwar, Pabo and Thalisain from Pauri; Bhatwari, Chinyalisour and Purola from Uttarkashi. Two hundred senior citizens from each districts were chosen that constitutes 1200 Elderly in total. Participants had to be from Uttarakhand and be at least 60 years old to meet the inclusion criteria.

Tool/ Assessment

The Geriatric Depression Scale (GDS) was first created by Yesavage, et al., in 1983, has been tested and used extensively with the older population. The short form, which was developed in 1986, is used in present study which consists of 15 questions. Of the 15 items, score of 0 to 5 is normal. A score greater than 5 suggests depression.

Procedure

Researcher contacted some Gram Pradhan, Ward member and Locals to reach out Senior citizens. The study participants were interviewed after being made aware of the academic nature of the research and

assured that the data collected from them would remain confidential. As elderly people, they answered the test with great cooperation and sincerity.

Results

The variables in this case are Social Category i.e. General, Other Backward Caste (OBC), Scheduled Castes (SC), and Scheduled Tribes (ST) and the level of Depression (Depressed vs. Non-Depressed).

DEPRESSION * SOCIAL CATEGORY Crosstabulation							
			SOCIAL CATEGORY				Total
			General	OBC	SC	ST	
Depression level	Non-Depressed	Count (Observed frequency)	224	93	119	40	476
		Expected Count	190.0	109.1	136.9	40.1	476.0
		% within Depression level	47.1%	19.5%	25.0%	8.4%	100.0 %
		% within SOCIAL CATEGORY	46.8%	33.8%	34.5%	39.6%	39.7%
	Depressed	Count (Observed frequency)	255	182	226	61	724
		Expected Count	289.0	165.9	208.2	60.9	724.0
		% within depression level	35.2%	25.1%	31.2%	8.4%	100.0 %
		% within SOCIAL CATEGORY	53.2%	66.2%	65.5%	60.4%	60.3%
Total		Count	479	275	345	101	1200
		Expected Count	479.0	275.0	345.0	101.0	1200.0
		% within Depression level	39.9%	22.9%	28.8%	8.4%	100.0 %
		% within SOCIAL CATEGORY	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %

Table 1: Findings of Chi Square test

Above Crosstabulation table is a summary of the data, showing the number of individuals in each combination of categories. Psychological assessment of 1,200 people revealed that 724 (60.3%) of them were classed as depressive, whereas 476 (39.7%) were not. The chi-square test of independence indicated a significant association between depression level and social category, $\chi^2(3, N = 1200) = 17.87$, $p < 0.001$.

Since $p < 0.001$, the result is highly significant, therefore, null hypothesis is rejected. These findings suggest that depression is significantly associated with social category, with OBC and SC groups being more vulnerable, whereas the General group shows comparatively better mental health outcomes.

The General category had more non-depressed individuals (224 vs. expected 190) and fewer depressed individuals (255 vs. Expected = 289) than expected. In contrast, OBC (182 vs. expected 166) and SC (226 vs. expected 208) categories showed higher-than-expected numbers of depressed individuals and fewer non-depressed individuals OBC (93 vs. Expected = 109) and SC (119 vs. expected = 137) than expected. The ST category's distribution was close to expected values (observed and expected ~ same). It is almost no difference. Percentage distribution highlights that depression was more prevalent in OBC (66.2%) and SC (65.5%) groups, compared to the General group (53.2%). These results suggest that social category is significantly related to depression, with individuals from OBC and SC categories being more vulnerable to depression compared to those from the General category.

Within Depression Level (%), it has been found that among non-depressed (476 total), 47.1% are General (almost half of the non-depressed individuals are from the General category), 19.5% OBC (about one-fifth are from OBC), 25% SC (about one-fourth are from SC), 8.4% ST (a small portion are from ST). Whereas, among depressed group (724 total), 35.2% General (the share of General category decreases here), 25.1% OBC (the share of OBC increases compared to the non-depressed group), 31.2% SC (the share of SC also increases), 8.4% ST (the ST category stays about the same as before). Non-depressed are more concentrated in the General group, while depressed cases are relatively higher in OBC and SC groups.

When we look at the distribution of depression within each social category, some clear patterns emerge. In the General category, 46.8% of individuals are non-depressed while 53.2% are depressed. Among OBC, only 33.8% are non-depressed compared to 66.2% who are depressed, showing a higher prevalence of depression. A similar trend is seen in the SC category, where 34.5% are non-depressed and 65.5% are depressed. In the ST category, 39.6% are non-depressed and 60.4% are depressed, which is closer to the overall average. These figures suggest that depression is relatively more common in OBC and SC groups compared to the General group, while ST lies somewhere in between.

Discussion

The Present study found significant correlation between depression levels and social categories in Elderly population of Uttarakhand State. Tiwari, K. et al. (2020) concluded that the substantial rate of depression among older adults in Dehradun, coupled with its diverse contributing factors, establishes it as a significant public health concern for this population. Early recognition and management are crucial to prevent it from becoming a larger health crisis. According to Roychowdhury (2024), which shows marginalized groups including SCs, STs, and OBCs have greater rates of depression than Upper caste (UC)-Hindus. Furthermore, whereas STs do not significantly differ from UC-Hindus in the frequency or severity of clinical depression, SCs and OBCs are more likely than UC-Hindus to experience it. Also, Bartwal et al (2017) shows the rate of depressive symptoms in elderly people were 17.5% ± 6.56 and Women, widowed persons, illiterate people, and those with lower socioeconomic status were more likely to experience

depression. Even a thorough review by Barua et al. (2010) discovered that depression affects 10–20% of older persons globally. Several other research carried out both locally and globally, also found the prevalence ranged from 8.9% (Sengupta et al., 2015) to 61.4% (Akhtar et al., 2013).

Conclusion

The prevalence of depression is notably high across all social categories among the elderly in Uttarakhand, indicating a universal need for psychological intervention regardless of group. Statistical analysis reveals a significant association between depression and social category: individuals from the General category are relatively less likely to experience depression, exhibiting more non-depressed cases than expected. In contrast, elderly individuals from OBC and SC groups are at a higher risk and present more observed cases of depression than anticipated. The prevalence of depression among the ST group aligns closely with expected values, showing no substantial deviation. These findings underscore the importance of targeted mental health strategies to address the heightened vulnerability in specific social categories.

Reference

1. Akhtar, H., Khan, A. M., Vaidhyanathan, K. V., Chhabra, P., & Kannan, A. T. (2013). Socio-demographic predictors of depression among the elderly patients attending outpatient departments of a tertiary hospital in North India. *International Journal of Preventive Medicine*, *4*(8), 971.
2. Alexopoulos, G. S. (2005). Depression in the elderly. *The lancet*, *365*(9475), 1961-1970.
3. American Psychiatric Association. (2021). *What is depression?* American Psychiatric Association. https://www.psychiatry.org/patients-families/depression/what-is-depression
4. American Psychological Association. (n.d.). *Depression*. In *APA Dictionary of Psychology*. Retrieved August 25, 2025, from https://dictionary.apa.org/depression
5. Antony, A., Parida, S. P., Behera, P., & Padhy, S. K. (2023). Geriatric depression: prevalence and its associated factors in rural Odisha. *Frontiers in public health*, *11*, 1180446.
6. Banerjee, A., Duflo, E., Grela, E., McKelway, M., Schilbach, F., Sharma, G., and Vaidyanathan, G. (2023). Depression and Loneliness among the Elderly in Low-and Middle-Income Countries. Journal of Economic Perspectives, 37(2):179–202.
7. Bartwal, J., Rawat, C. S., & Awasthi, S. (2017). Rate of depressive symptoms and associated risk factors among the elderly in Haldwani Block of Nainital District, Uttarakhand, India. *International Journal of Nutrition, Pharmacology, Neurological Diseases*, *7*(2), 34-38.
8. Bartwal, J., Rawat, C. S., & Awasthi, S. (2017). Rate of depressive symptoms and associated risk factors among the elderly in Haldwani Block of Nainital District, Uttarakhand, India. *International Journal of Nutrition, Pharmacology, Neurological Diseases*, *7*(2), 34-38.
9. Barua, A., Ghosh, M. K., Kar, N., & Basilio, M. A. (2010). Socio-demographic factors of geriatric depression. *Indian journal of psychological medicine*, *32*(2), 87-92.
10. Behera, P., Sharan, P., Mishra, A. K., Nongkynrih, B., Kant, S., & Gupta, S. K. (2016). Prevalence and determinants of depression among elderly persons in a rural community from northern India. *The National Medical Journal of India*, *29*(3), 129.

11. Blanchard MR, Waterreus A, Mann AH. The nature of depression among older people in inner London, and the contact with primary care. *Br J Psychiatry*. 1994 Mar;164(3):396-402. doi: 10.1192/bjp.164.3.396. PMID: 8199793.
12. Bloom, D. E., Sekher, T., and Lee, J. (2021). Longitudinal Aging Study in India (LASI): new data resources for addressing aging in India. Nature Aging, 1(12):1070–1072.
13. Cole, M. G. and Dendukuri, N. (2003) Risk factors for depression among elderly community subjects: a systematic review and meta-analysis. *American Journal of Psychiatry*, 160, 1147–1156.
14. Evans, J. M., Kiran, P. R., & Bhattacharyya, O. K. (2011). Activating the knowledge-to-action cycle for geriatric care in India. *Health Research Policy and Systems*, *9*(1), 42.
15. Evans, M., & Mottram, P. (2000). Diagnosis of depression in elderly patients. *Advances in psychiatric treatment*, *6*(1), 49-56.
16. Goel, P. K., Muzammil, K., Kumar, S., Singh, J. V., & Raghav, S. K. (2014). Socio-demographic correlates of depression among elderly slum dwellers of North India. *Nepal Journal of Epidemiology*, *4*(1), 316-322.
17. Gupta, A., & Coffey, D. (2020). Caste, religion, and mental health in India. *Population Research and Policy Review*, *39*(6), 1119-1141.
18. J. Katon, W. (2011). Epidemiology and treatment of depression in patients with chronic medical illness. *Dialogues in clinical neuroscience*, *13*(1), 7-23.
19. Jhingan, H. P., Sagar, R. and Pandey, R. M. (2001). Prognosis of late-onset depression in the elderly: a study from India. *International Psychogeriatrics*, 13, 51–61.
20. Katon, W., & Ciechanowski, P. (2002). Impact of major depression on chronic medical illness. *Journal of psychosomatic research*, *53*(4), 859-863.
21. Kumar, A. (2005). District mental health programmme in India: A case study. *Journal of Health and Development*, *1*(1) 24-35.
22. Kumar, S., Chauhan, S., Patel, R., Kumar, M., & Simon, D. J. (2023). Urban-rural and gender differential in depressive symptoms among elderly in India. *Dialogues in Health*, *2*, 100114.
23. Lapid, M. I., & Rummans, T. A. (2003). Evaluation and management of geriatric depression in primary care. In *Mayo clinic proceedings*, 78,(11), 1423-1429.
24. Marmamula, S., Kumbham, T. R., Modepalli, S. B., Barrenkala, N. R., Yellapragada, R., & Shidhaye, R. (2021). Depression, combined visual and hearing impairment (dual sensory impairment): a hidden multi-morbidity among the elderly in Residential Care in India. *Scientific Reports*, *11*(1), 16189.
25. Mayank, M., & Khamb, K. (2025). Prevalence of depression among elderly patients in India: A systematic review and meta-analysis. *World Journal of Advanced Research and Reviews*, *26*(2), 127-132.
26. Mitchell, A. J. and Subramaniam, H. (2005). Prognosis of depression in old age compared to middle age: a systematic review of comparative studies. *American Journal of Psychiatry*, 162, 1588–1601.

27. National Health Systems Resource Centre. (2021). Health Dossier 2021: Reflections on key health indicators – Uttarakhand [PDF]. Ministry of Health & Family Welfare. Retrieved July 29, 2025, from https://nhsrcindia.org/sites/default/files/practice_image/HealthDossier2021/Uttarakhand.pdf
28. Paul, R., Muhammad, T., Rashmi, R., Sharma, P., Srivastava, S., & Zanwar, P. P. (2023). Depression by gender and associated factors among older adults in India: implications for age-friendly policies. *Scientific Reports*, *13*(1), 17651.
29. Pilania, M., Bairwa, M., Kumar, N., Khanna, P., & Kurana, H. (2013). Elderly depression in India: An emerging public health challenge. *The Australasian medical journal*, *6*(3), 107.
30. Rajkumar, A. P., Thangadurai, P., Senthilkumar, P., Gayathri, K., Prince, M., & Jacob, K. S. (2009). Nature, prevalence and factors associated with depression among the elderly in a rural south Indian community. *International Psychogeriatrics*, *21*(2), 372–378. doi:10.1017/S1041610209008527
31. Roychowdhury, P. (2024). *Social Identity and Depression Among the Elderly: Evidence from India* (No. 1466). GLO Discussion Paper.
32. Sagar, R., Dandona, R., Gururaj, G., Dhaliwal, R. S., Singh, A., Ferrari, A., ... & Dandona, L. (2020). The burden of mental disorders across the states of India: the Global Burden of Disease Study 1990–2017. *The Lancet Psychiatry*, *7*(2), 148-161.
33. Sahni, B., Bala, K., Kumar, T. & Narangyal, A (2020). Prevalence and determinants of geriatric depression in North India: A cross-sectional study. *J. Fam. Med. Primary Care* **9**, 2332–2336.
34. Seby, K.; Chaudhury, Suprakash; Chakraborty, Rudraprosad. Prevalence of psychiatric and physical morbidity in an urban geriatric population. *Indian Journal of Psychiatry* 53(2):p 121-127, Apr–Jun 2011. | DOI: 10.4103/0019-5545.82535
35. Sengupta, P., & Benjamin, A. I. (2015). Prevalence of depression and associated risk factors among the elderly in urban and rural field practice areas of a tertiary care institution in Ludhiana. *İndian journal of public health*, *59*(1), 3-8.
36. Sheikh, J. I., & Yesavage, J. A. (1986). Geriatric Depression Scale (GDS): Recent evidence and development of a shorter version. *Clinical Gerontologist: The Journal of Aging and Mental Health, 5*(1-2), 165–173.
37. Tiwari, K., Aggarwal, P., Kakkar, R., & Tiwari, A. (2020). Moving out of shadows: Depression among the elderly in dehradun district of Uttarakhand, India. *Journal of Lifestyle Medicine*, *10*(2), 102.
38. Tiwari, S. C. (2000). Geriatric psychiatric morbidity in rural northen India: implications for the future. *International psychogeriatrics*, *12*(1), 35-48.
39. UN DESA (United Nations Department of Economic and Social Affairs) (2019). World Population Ageing 2019: Highlights. Technical report, United Nations: New York.
40. Vishwakarma, D., Gaidhane, A., & Bhoi, S. R. (2023). Depression and its associated factors among the elderly population in India: A review. *Cureus*, *15*(6).