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Association between Activities of Daily Living and Subjective Well being in Elderly Population

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ABSTRACT:

As one ages naturally, it is vital to focus on happiness, contentment, and overall well-being. As individuals age, they may face challenges in performing essential activities for their independence and overall well-being, which significantly affect their functioning and quality of life. Addressing limitations in activities of daily living is crucial for older adults seeking to achieve fulfilling lives. This study aimed to evaluate the relationship between the Functional Independence Level and Subjective Well-being index of the elderly population while assessing factors influencing their Activities of Daily Living. of the 750 elderly study subjects, 94.53% were found to be fully independent. 4.93% were moderately independent, and 0.27% had severe functional impairment. The main factor affecting ADL was 13.91% shivering of hands and 13.04% general weakness. subjective well-being categorizations based on scores: 75.87 of individuals exhibit good subjective well-being (81-120), 17.60 show moderate well-being (61-80), and 6.53 fall into the category of poor subjective well-being (40-60), with corresponding frequencies of 569, 132, and 49 individuals, respectively. At a statistical significance level of 0.01 ($p < 0.01$), the chi-squared value of 25.314 indicates an association between improved ADL levels and enhanced SWB in older adults. Among the elderly, those who were slightly dependent showed greater improvements in subjective wellbeing than those who were moderately dependent. The more independent a person is, the greater their overall life satisfaction. **Conclusion:** Elderly who are more independent in ADLs show a decrease in the number of those slightly or moderately dependent and an increase in self-reported happiness. Greater independence is linked to increased overall life satisfaction.

Keywords: Activities of Daily Living (ADL), Subjective Wellbeing (SWB), Functional Independence, Elderly Population, Quality of Life.

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1. INTRODUCTION

The relationship between activities of daily living (ADLs) and subjective well-being (SWB) in elderly populations is crucial due to global demographic shifts towards aging. ADLs encompass essential self-care tasks like bathing and eating, along with instrumental activities such as managing finances and transportation, pivotal for maintaining independence and quality of life. SWB refers to an individual's assessment of happiness and life satisfaction.

Research highlights various impacts of ADLs on SWB in older adults. For instance, mobility-related ADLs correlate significantly with better self-rated health, a key aspect of SWB¹. Additionally, engagement in daily life activities, particularly social ones, mediates the relationship between positive personality traits (like self-esteem) and SWB in seniors². This underscores the role of social interactions in enhancing well-being by leveraging psychological strengths.

In Chinese elderly, studies reveal negative correlations between ADLs (both basic and instrumental) and SWB, with leisure activities partially mediating this association³. This underscores leisure's role in promoting well-being despite limitations in daily activities. Similarly, in rural Japan, apathy impacts ADL performance and subsequently affects SWB, highlighting the psychological dimensions of well-being and the need for comprehensive health interventions⁴.

A critical review underscores the positive impact of an active lifestyle on SWB in later life, with socializing, religious practices, and physical activities consistently linked to higher well-being⁵. Encouraging diverse activities thus enhances SWB among older adults.

In conclusion, the relationship between ADLs and SWB in elderly individuals involves physical, psychological, and social dimensions. Future research should explore these links further to develop interventions that comprehensively enhance quality of life for older adults.

Need of the Study

The study on Activities of Daily Living (ADL) and Subjective Wellbeing in the elderly population addresses a critical need in gerontology and healthcare as the global population ages. Understanding the factors influencing functional independence and well-being in older adults is crucial for promoting healthy aging and enhancing quality of life. By investigating the relationship between ADL and Subjective Wellbeing (SWB), the study aims to identify key factors impacting older adults' ability to maintain independence in daily activities. Insights from this research can inform tailored interventions and support services to enhance autonomy and functional abilities in the elderly.

Enhancing SWB is vital for overall life satisfaction and emotional well-being. Exploring how ADL levels correlate with SWB in older adults can provide valuable insights to improve psychological and emotional health in this population. The study's findings can inform healthcare practices, guiding practitioners, policymakers, and caregivers in developing targeted interventions and support programs to enhance the well-being of older individuals.

Understanding how daily activities like dressing, eating, and moving around affect how happy and independent older people feel is crucial. By studying this connection, we can learn how to improve their well-being and help them stay independent longer. This research is essential for figuring out what factors make life better for older adults and finding ways to support healthy aging and make sure seniors have fulfilling lives.

Aim of the Study

The aim of the study of Activities of Daily Living (ADL) and Subjective Wellbeing in the elderly population is to investigate the relationship between functional independence and well-being among older adults.

2. RESEARCH METHODOLOGY

Objectives:

- Assess the association between functional independence level and Subjective Wellbeing (SWB) in the elderly population.
- Identify factors influencing Activities of Daily Living (ADL) and their impact on SWB.
- Determine the subjective well-being index of the elderly population.
- Explore the relationship between ADL levels and SWB to inform interventions for promoting independence and well-being in older adults.

Research Type: Community-based cross-sectional study. **Research Design:** The study utilized a quantitative research design. **Sample and Size:** The sample size consisted of 750 elderly individuals aged 60 years and above from the Konkan division urban & rural community. **Sampling Technique and Tool Description:** Random sampling was employed to select study subjects. A questionnaire comprising demographic data, Barthel Index for assessing functional independence, factors affecting ADL, and the WHO Subjective Wellbeing Index was used for data collection. **Reliability:** The study ensured reliability by using standardized assessment tools and maintaining consistency in data collection methods to ensure the accuracy and consistency of results.

3. RESULTS

Description of subject (elderly people) according to demographic characteristics by frequency and percentage.

Demographic variables Table 1 show that majority of elderly people 53.33% were suffering from hypertension. 46.66% of elderly people were suffering from diabetes mellitus. 25% of elderly people were suffering from arthritis. 5% of elderly people were suffering from cardiovascular. 30% of elderly people were suffering from cataracts. 10% of elderly people were suffering from respiratory disease. 5% of elderly people were suffering from chronic kidney disease. Not a single elderly people were not having any type of disease.

Table:1 Functional Independence in elderly Population

Level of Functional Independence	Score	N	%
Full independent	5-6	709	94.53
Moderate independent	3-4	37	4.93
Severe functional impairment	<=2	2	0.27
	Total	750	99.73

Table 2 shows the level of independence in performing activity of daily living (ADL) among elderly population (the Barthel scale). Majority of elderly population (94.53%) are Full independent. 4.93% of elderly population are moderately independent. 0.27 % of elderly population are having Severe functional impairment.

Table:2 Frequency and percentage distribution of Subjective well-being Inventory (SUBI) of senior citizens

Subjective well-being	Score	N	%
Good subjective well-being	81-120	569	75.87
Moderate subjective well-being	61-80	132	17.60
Poor subjective well-being	40-60	49	6.53
	Total	750	100

The table: 3 displays subjective well-being categorizations based on scores: 75.87 of individuals exhibit good subjective well-being (81-120), 17.60 show moderate well-being (61-80), while 6.53 fall into the category of poor subjective well-being (40-60), with corresponding frequencies of 569, 132, and 49 individuals, respectively

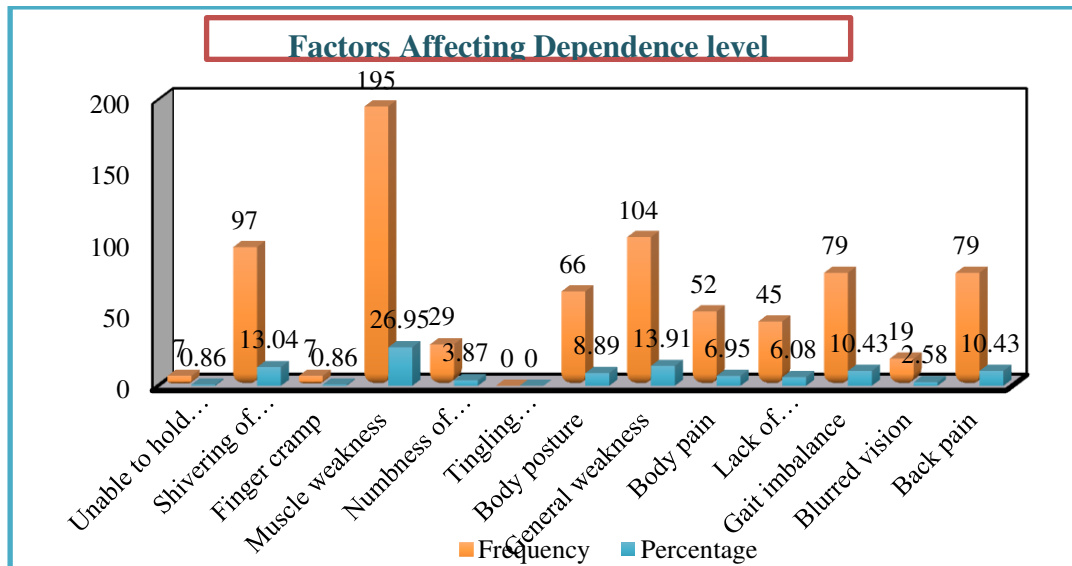


Fig 1: Factors Affecting ADL

Fig .1 shows factors affecting ADL among urban elderly. Shivering of hands (13.04%), general weakness (13.91%), muscle weakness (26.95%), unsteady gait (10.43%), body posture (8.89%), body pain (6.95%), lack of coordination (6.08%), back pain (10.43%), numbness of fingers (3.87%), blurred vision (2.58%), unable to hold things (0.86%), and finger cramps (0.86%) reported by elderly affecting ADLs.

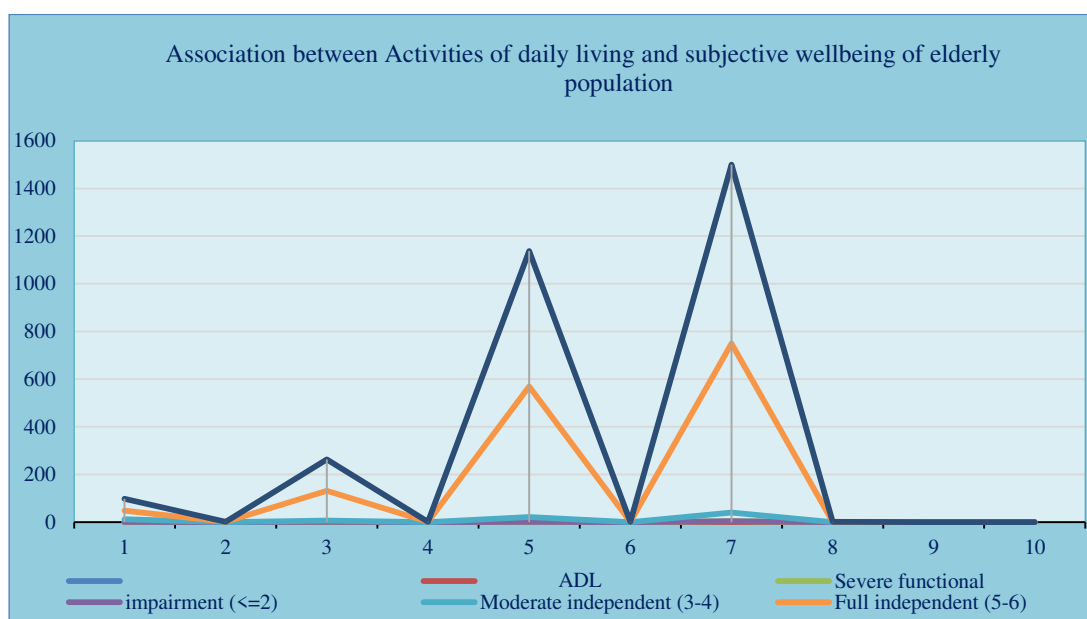


FIG 2. Association between Activities of daily living and subjective wellbeing of elderly population.

*Chi square value is significant at the 0.01 level

The chi-square value is 25.314, which is significant at the 0.01 level ($p < 0.01$). This indicates that there is a statistically significant association between ADL levels and SWB among older adults. We can infer that as ADL levels improve (from severe functional impairment to full independence), SWB tends to improve as well. So as people become more independent in their daily activities (ADLs), their subjective well-being tends to improve. So, greater independence is associated with better overall life satisfaction.

2. DISCUSSION

Redzovic S, Vereijken B, Bonsaksen T study examined the relationship between demographic and living situation factors and independence in activities of daily living (ADL) among community-dwelling older adults in Norway. The study found that age, education level, income, chronic and disabling disease, subjective well-being, and marital status were all associated with ADL independence.

The study highlights the importance of taking proactive measures to promote independence and well-being among older adults, especially those with lower education and income levels. The findings have important implications for promoting the well-being of older adults in Norway and potentially in other countries as well ⁶.

Barbara Bien, Katarzyna Bien-Borkowski article "Objective predictors of subjective well-being in geriatric inpatients" provides valuable insights into the factors influencing the subjective well-being (SWB) of elderly patients. The study explores the impact of various objective indicators on self-evaluated health, feeling of loneliness, and severity of depression symptoms in geriatric inpatients. The findings reveal that high-stress situations in the recent past, living alone, level of education, the Charlson comorbidity index (CCI), and the speed of performing the Up & Go test are significant predictors of SWB. Notably, good motor function and higher education levels emerge as general predictors exerting an independent beneficial impact on all three SWB indicators. These findings highlight the importance of mobility function and education in influencing geriatric inpatient well-being. The novelty of the present study lies in the identification of mobility performance and education levels as independent contributors to better SWB in the most comorbid elderly individuals. In addition, we emphasize the underrated role of motor slowness as geriatric inpatient's universal marker of decreased state of mind ⁷.

Abhay Mudey et al. carried out a similar study in Wardha district, Maharashtra, to assess the QoL among the elderly population of Wardha district Maharashtra. The results show that the elderly living in the urban communities reported significantly lower QoL in the domains of physical and psychological than the rural elderly population ⁸.

Medhi et al. conducted a similar study in Assam in India and found an association between health-related QoL and activities of daily living (ADLs) among the elderly in an urban setting of Assam, India, where 34.7% participants had limitations in one or more ADLs. Those with a perfect 100 ADL score also scored the highest on all eight HRQOL scales, whereas those with a least ADL score scored the lowest on all eight HRQOL scales ⁹.

The study by Hennessy et al. (2015) investigates the association between disability stage based on activities of daily living (ADLs) and instrumental activities of daily living (IADLs) with three-year mortality in Medicare beneficiaries aged 65 years and older. The research highlights the significance of functional stages in predicting mortality outcomes in older adults, emphasizing the need for comprehensive assessment tools in healthcare settings. The findings suggest that disability stages play a crucial role in identifying high-risk patients and developing targeted interventions to improve outcomes and reduce mortality rates in this population. The study underscores the importance of integrating disability measures into predictive indices for clinical practice and population health management. Future research directions include exploring the utility of disability stages in predicting other adverse

outcomes and developing strategies for disability prevention and management to enhance the well-being of older adults.¹⁰

3. CONCLUSION

The elderly population was selected for study and it was found that maximum elderly were slightly dependent, and few were moderately dependent. Level of dependency does not affect on subjective wellbeing of individual but increased dependency may negatively impact on subjective wellbeing of elderly population.

Conflict of Interest and Funding

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