



## Streamlining Administrative Tasks in Old Age Homes: An Android Application for Efficient Management

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**ABSTRACT:** This paper aims to give a participatory evaluation of a real application that was put into action in a free-standing senior community. Residents assisted the research team in developing and implementing the first stage of a project that was created to help old people in place and maintain functional independence by using the participatory assessment process. We selected some NGO's, all of whom gave us the go-ahead to set up the application. The data were generally well received by the locals, who did not feel that they interfered with their daily lives. There were three stages to the adoption and acceptance of the sensors: familiarisation, adaptation and curiosity, and full integration.

**KEYWORDS:** Application, Communication, Donation, Management, Old age homes, Registration, Rating scheme, services.

### INTRODUCTION

Old age homes play a crucial role in providing care and support to elderly individuals who require specialized assistance. Efficient management systems are essential to ensure the well-being and satisfaction of residents, as well as to streamline administrative processes [1]. The Varishth Kutumb application is developed to address these requirements by offering a user-friendly platform for old age homes to manage their operations effectively [2]. This research paper presents the key features of the application, including registration, room availability tracking, member statistics, service provision details, contact information, and a chat feature for seamless communication with NGOs. Furthermore, the paper explores the future scope of the Varishth Kutumb application, which encompasses donation options and a rating scheme to enhance the support and overall quality of services provided by old age homes [3].

The physical, psychological, hormonal, and social factors change as we age, which is an unavoidable developmental event. By "the regular changes that occur in mature genetically representative organisms living under deplorable environmental conditions as they advance in chronological age," define ageing in terms of biology. It has been said that old age is a difficult time in life, and to some extent, this is true. The elderly become more and more reliant on others[5]. Man becomes more vulnerable as he ages due to his decreased activities and income as well as the ensuing loss in the status of the family and society. An elderly person starts to feel that even his children don't appreciate him as much as they used to.

Old age homes are necessary in today's society since family duties to elderly members are becoming less common as lifestyles change quickly. Therefore, in order to improve their overall quality of life, older individuals require essential support. The research mentioned above demand that we fully comprehend the idea of old age homes and assess the psychosocial status of seniors and related issues [4].

Ageing is described by Edward J. Stieglitz as "the elements of time living."His statement was that "ageing is a part of living." Ageing starts at conception and ends at death. The best way to describe ageing is as the survival of an increasing number of individuals who have fulfilled the typical adult tasks of earning a living and having children [6]. Age is physiologically characterized by a decline in body functions. Old age has been categorized into three groups by numerous researchers.

- Young old age, which was defined as being between the ages of 60 and 69.
- Old age, sometimes known as advanced old age, which starts at age 70 and lasts until age 79.
- Older age is defined as 80 years of age and older.

Joint family breakdown, increased urbanization, and industry, and shifting societal norms have all combined to seriously harm the elderly. If they stop being productive members, they are considered like an inescapable burden. It is a well-known truth that



older employees' unstable employment poses a serious social issue. This is one of the occupational challenges associated with ageing [7]. The labor market now has many older people on the edges without any stable commitment to a job, or perhaps actually displaced and unable to feed themselves because of the ever-increasing complexity of technological developments. Many people who live alone prefer not to eat well-balanced meals because they think it would be too difficult to prepare meals for just one person. Another factor contributing to malnutrition in older women is low income [8]. According to some study, a significant issue for many people in their senior years is housing. No of your age, having suitable home is crucial. Few things have as much promise to improve elderly people's wellbeing as housing of the right size, which provides safety, comfort, and the option to choose between seclusion and community contact.

With so many losses and disappointments in life, depression is one of the most prevalent psychiatric disorders. Simple mood swings to severe affective states are all included in the term "depression," which refers to a diverse range of phenomena. Geriatric depression is a serious health risk with life-altering consequences [10]. Between 15% and 20% of the elderly population may have depression, according to Kalpan and Shaddock. Due to physical conditions, dementia syndromes, and the population's diversity, depression in old age is highly complex and difficult to diagnose.

Clinicians must distinguish between depression and conditions that arise after strokes, other types of brain injuries, and illnesses to make an accurate diagnosis. With the increase in life expectancy around the world, depression is a common public health problem, and it is linked to morbidity as well as impairment in the elderly. Studies on depression in older people from poor nations are quite rare. This study's objective was to determine the prevalence of depression and its associated among senior citizens residing in old age homes. Methods: In 2012, a cross-sectional study was conducted [11]. The brief Geriatric Depression Scale was used to collect data during face-to-face interviews. Regression, simple correlation, mean, percentage, and mean were used to analyses the data. Results: The subjects (N = 185) were senior citizens in the Devghat region of Nepal who were 60 years of age or older. 51% of the participants were male, with a mean age of 73.67 (3.23) years. Elderly people of Khas ethnicity make up 94%. Only 18% of the elderly were literate, 25% of them were married, and nearly one-third (31%) of them came from nuclear families. The majority of senior people (93%) experienced health issues, while 86% of those who self-reported their health said it was fair. The average functional disability score, according to this study, was 2.53 (2.05). 46.7% of them had mild depression, 8.9% had moderate depression, and 2.2% had severe depression. Feelings of depression were statistically significantly correlated with age, sex, previous family type, ethnicity, loneliness, and instrumental daily life activities. According to a regression study, feeling lonely, being a woman, and having more IADL reliance are all risk factors for depression [12]. Conclusion: According to this study, a significant number of senior residents of the old age home experience depression. In order to alleviate depression and improve the quality of life for elderly people, there should be some intervention from the relevant authorities.

## LITERATURE SURVEY

The various challenges that the elderly face and the welfare measures taken to improve their quality of life are frequently brought up while talking about old age. Physical illnesses, psychological disorders, and adjustment issues have been observed to be relatively prevalent during this stage of life. The majority of people are approachable and open about the challenges they encounter near the end of their life. Physical changes in the aged include skin wrinkles, slumped posture, flabby muscles, impaired eyesight and hearing, and a diminished cardiovascular system efficiency [3]. The subject of this generation is loss, which can be expressed as a loss of physical capabilities, a loss of intellectual prowess, a loss of a job or other source of vocational identity (retirement), etc.

Seniors frequently experience depression, which is a serious public health issue. The fourth most prevalent condition, depression, can cause physical, emotional, social, and economic issues, according to the WHO (2005) [9]. Depression is more common in some countries than others, with prevalence rates ranging from 10% to 55%. According to a study, depression rates in nursing homes range from 34.6% to 77.5%. Late-life depression is linked to significant morbidity, including impairments in a variety of cognitive functions and a significant impact on functional impairment, disability, and decreased quality of life. It also has a negative impact on the body's ability to recover from illness, raises the suicide rate, and increases the use of medical services and costs.

Patients with concurrent chronic conditions, such as emphysema, cancer, and diabetes, are more impaired and have a lower quality of life when they experience depressive symptoms. The handicap that results when depression coexists with other medical diseases seems to be additive [13]. However, depression considerably raises the likelihood of incident ADL and mobility difficulty



in older persons, even those without a disability. Studies also reveal that "depressed persons, including depressed elderly persons, use two to three times as many medical services as people who are not depressed." According to previous studies, older adults with depressive symptoms accumulate 50% more in healthcare expenses due to using medical services more frequently than older adults without depressed symptoms [14].

Unfortunately, depression is a major issue in developing nations, where there is a severe dearth of information regarding the prevalence and severity of the condition as well as the resources available to treat it. Cost-effective interventions are available, but they are not always made available to those who need them due to a number of overwhelming challenges in low-resource settings, including a lack of facilities and trained mental health professionals, uncertainty about the usefulness of population-based screening, and the stigma associated with mental disorders in general [15].

Even though Nepal is one of the least developed nations in the world, the proportion of senior people is growing quickly. According to the most recent census, which was conducted in 2011, 8.2 percent of the population was over 60. However, the government has not prioritized identifying the issues facing the elderly through study or putting the existing senior citizen act into effect for their welfare. Elderly depression in Nepal has not been thoroughly researched [17]. The actual prevalence of depression, as well as its correlates and predictions, are poorly understood. There is no precise data available regarding the prevalence of depression among senior Nepalis.

Old age homes are typically reserved for the elderly in Nepal who do not have children to care for them. Additionally, a lot of these old age homes are situated in houses of worship. However, the number of individuals who prefer to live in the old age home is growing as a result of modernization, urbanization, family nucleation, movement of youths to urban areas, and immigration from other nations [16]. However, community members have begun to open old age homes in various regions of the nation due to the restricted availability and capacity of old age homes.

This study's objective is to identify depression's prevalence and determinants among senior old age homes. The general perception that depression is more prevalent in senior people and causes more days of disability than chronic medical illnesses including heart disease, hypertension, and diabetes served as the basis for this study.

## REASONS FOR SHIFTING TO THE OLD AGE HOME

Due to their loneliness, senior adults reside in nursing homes. According to her research, a joint or merged family may aid with the care of elderly individuals. Conflict with their sons was the most often cited factor by respondents for moving to an old age home, according to Table 4. 40% of respondents said their sons would belittle them. 5% of respondents said they moved into the nursing home to live independently and peacefully. According to a researcher's study, stress is to blame for 40% of men and 36% of women moving into nursing homes.

| Response Category  | Number    | Percentage |
|--|-----------|------------|
| Have no sons and did not want to live with married daughters | 10        | 25         |
| Conflicting relations with sons                              | 16        | 40         |
| Wanted independent peaceful life                             | 2         | 5          |
| Nobody to look after   | 12        | 30         |
| <b>Total</b>   | <b>40</b> | <b>100</b> |

Fig1: Reason for shifting to the old age home

## APPLICATION FEATURES

- Registration for Old-Age Homes: The Varishth Kutumb application provides a simple and intuitive registration process for old-age homes. Each home can register and create their profile within the application, providing essential details such as location, facilities, and contact information.
- Room Availability Tracking: Old age homes can manage the number of available rooms through the application. The system allows homes to update the availability status, ensuring accurate information for potential residents.
- Member Statistics: The application enables old age homes to keep track of the number of male and female members currently residing in the facility. This feature facilitates efficient management and resource allocation.

- Service Provision Details: Old age homes can showcase the services they provide, such as healthcare facilities, recreational activities, meal plans, and social events. The application allows homes to update and maintain a comprehensive list of services offered.
- Contact Information: The Varishth Kutumb application prominently displays the contact details of each registered old age home. This information helps interested individuals and their families easily reach out to the respective homes for inquiries or admissions.
- Chat Feature for Communicating with NGOs: The application incorporates a chat feature, enabling seamless communication between old age homes and non-governmental organizations (NGOs). This feature facilitates collaboration, support, and resource sharing between NGOs and old age homes.



Fig 2- Splash Screen

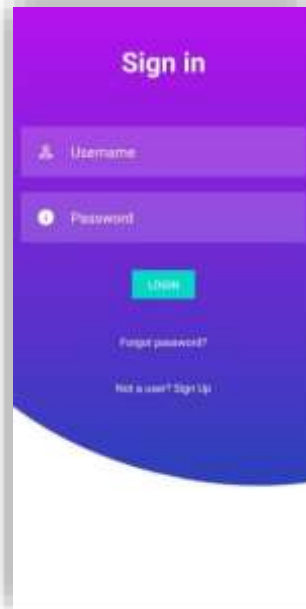


Fig 3- Login Page

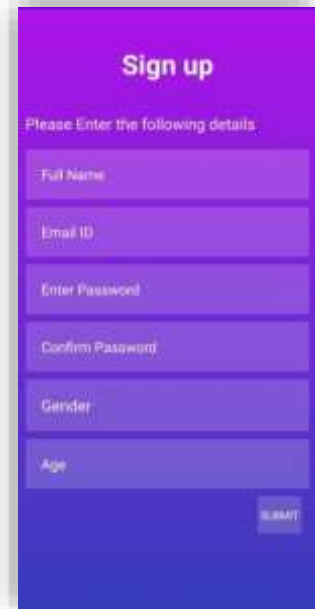


Fig 4- Register Page

An old age home app's login page was made with usability and simplicity in mind. It has a simple and user-friendly interface and presents a login form for users to submit their information, including a username and password. The text is large and clear, making it easy for older users to read. The colour scheme is calming and all-encompassing, encouraging a feeling of familiarity and comfort. The login screen might also offer choices for password recovery or support for users who might need it. The login screen's overall goal is to deliver a user-friendly experience while considering the special requirements and preferences of older folks in order to access the app's capabilities.

Old Age Home administration system's list of NGOs screen gives a thorough overview of all the NGOs (NonGovernmental Organisations) connected to the facility. It presents a well arranged and simple-to-navigate list with each NGO's name, contact details, and areas of specialisation. Additional information may be displayed on the screen, such as the services provided by each NGO, their volunteer initiatives, and any ongoing partnerships with the senior living facility. By facilitating quick access to crucial information and cultivating a strong network of support from many NGOs in their mission to improve the well-being and care given to elderly residents, this screen intends to empower the management and inhabitants of the old age home.



Fig 5- Choice Screen



Fig 6- Home Screen

## LIMITATION

The research work sample wasn't completed with a focus on a specific area. Only adults and older participants were allowed in the study. As a result, the outcome has no impact on other people. Few samples are used in this study. Therefore, generalization may not be felt in this case. Other than questionnaires, no other mental tools were used in the current research project to gather data. For this study's sample selection, a random technique was used. The current research is merely a portion of the larger study; hence, generalizations should not be made, and the scientific method was not used in the sample selection.

## SUGGESTIONS

Endeavour can be used to effectively analyse more than 60 sample data points in order to get better findings. Other than questionnaires, a variety of techniques can be used to gather information. To determine people's levels of requirements, a sample can be chosen by incorporating participants from various state and district populations. Other sample selection techniques may be used to complete the study project.

## CONCLUSION

The Varishth Kutumb application offers a comprehensive solution for efficient management of old age homes. By providing features such as registration, room availability tracking, member statistics, service provision details, contact information, and a chat feature for communication with NGOs, the application simplifies and streamlines the operations of old age homes. The future scope of the application, including donation options and a rating scheme, aims to further enhance support for the elderly and improve the overall quality of services provided by old age homes. The Varishth Kutumb application contributes to the well-being and happiness of elderly residents, ensuring they receive the care and attention they deserve in their later years. According to the survey, residents of nursing homes come from different castes and religions, and in some circumstances, they even speak different languages. Most of the women in old age homes spent their entire lives caring for their homes and families, which compelled them to rely on them for support. As a result, there were more female residents than male residents in old age homes. Older widowed people were a long distance from government programs. Perhaps old age is the age at which a person feels the greatest need for social interaction and emotional support. The health and welfare of their (older people's) should be a concern for the government.



## FUTURE SCOPE

Donation Options: In the future, the Varishth Kutumb application can incorporate a donation feature, allowing individuals or organizations to contribute funds, resources, or services to specific old age homes. This feature would further support the financial sustainability and operational efficiency of the homes. Rating Scheme: To enhance transparency and improve the quality of services provided by old age homes, the application can introduce a rating scheme. Users, including residents and their families, can provide feedback and rate their experience with specific homes. This feedback system would assist individuals in making informed decisions and encourage old age homes to maintain high standards of care.

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