A Study on Health Problems and Utilization of Health Services among Elderly Persons Kurnool district, AP, India

Suresh Bestha[1], Galeswara Rao Gundarapu[2], Divya Sai.M[3]

[1]Research scholar, Department of Population studies & Social work, Email.id: besthasuresh@gmail.com

[2]PG Student, Department of Social work, Email.id: eswarcheguevara@gmail.com

[3]Research scholar, Department of Social work email id: divyasaimaneri@gmail.com

ABSTRACT:

India is undergoing a profound demographic transition, with the elderly population rising steadily, especially in rural and semi-urban regions. Kurnool district in Andhra Pradesh reflects this nationwide trend, where a growing number of elderly individuals face multifaceted health challenges. This study investigates the prevalent health problems and the patterns of healthcare service utilization among the elderly population in Kurnool district. The elderly in this region are increasingly burdened with both non communicable diseases (NCDs), such as hypertension, diabetes, and musculoskeletal disorders, as well as age-related conditions like vision and hearing impairments. Moreover, social determinants such as poverty, illiteracy, social isolation, and inadequate awareness about geriatric health services limit their access to timely and appropriate care. Utilizing data from field surveys, government reports, and healthcare records, this study highlights critical gaps in service availability, accessibility, and affordability. It identifies significant disparities based on gender, urban-rural divide, and socio-economic status. The findings underscore the urgent need for a localized, geriatric-friendly healthcare model that prioritizes preventive care, improves health infrastructure, and ensures active policy implementation. Community-based outreach programs, mobile health units, and capacity building for local health worker sin geriatric care are essential to address the growing health needs of the elderly. This study advocates for a comprehensive, inclusive, and sustainable healthcare framework to enhance the well-being and dignity of elderly persons in Kurnool district.

Keywords: Elderly health, Health problems, Healthcare utilization, Kurnool District, Geriatric care, chronic diseases

Introduction:

India is currently experiencing a demographic shift marked by a significant rise in the elderly

Population. As per projections, the number of individuals aged 60 years and above is expected to exceed 300 million by 2050. This transition poses serious challenges to the healthcare system, especially in resource-constrained districts like Kurnool in Andhra Pradesh. The elderly population is particularly vulnerable to a wide spectrum of health problems, including chronic non communicable diseases (NCDs) such as hypertension, diabetes, cardiovascular disorders, and arthritis, along with sensory impairments, mental health issues ,and age-related disabilities.Additionally, diminished immunity in old age increases susceptibility to communicable diseases, further compounding the health burden.

Access to appropriate and timely healthcare services remains a critical concern. Many elderly individuals in rural and semi-urban regions face difficulties in availing medical care due to financial dependency, lack of transportation, inadequate public health infrastructure, and limited awareness of available services. In Kurnool district, these challenges are further aggravated by socio- economic disparities, gender inequality, and low literacy rates among the aging population.

Given this context, the present study seeks to explore the common health problems faced by the elderly in Kurnool district and assess the extent to which they utilize available health care services. By examining the patterns, barriers, and determinants of healthcare utilization, the study aims to provide evidence-based recommendations to improve geriatric care delivery and inform local policy interventions. Understanding the unique needs of this growing demographic is essential to ensure a life of dignity, health, and well-being for elderly persons in the region.

Literature Review

The research conducted by **Pateletal.(2018)**generates important in dings about population health care among rural Indian senior citizens focusing on both persistent illnesses and access to healthcare systems. The study focused on twelve Gujarat villages through combination research methods with 450 elderly participants to discover that 65% experienced chronic diseases primarily as hypertension and diabetes affected 42% and 38% respectively. Interviews and surveys conducted by Patel et al. (2018) demonstrate that forty percent of diagnosed patients received regular treatment but financial

barriers affected sixty-eight percent of cases and geographical distances contributed to 8.7 kilometers on average as a health care access barrier. There search data revealed essential gender variances in healthcare behavior because elderly women displayed thirty percent less interest in medical assistance than men. Along-term analysis of disease prevalence showed it rose by12% throughout five years. The authors propose community health worker programs and low-cost medications alongside mobile clinics as applicable solutions that could benefit Kurnool District another such areas. The diversified research methods used in this study created stronger proof of validity while building a complete system for studying rural healthcare issues.

Kumar and Singh (2019) a team of researchers led by Kumar and Singh (2019) conducted extensive studies in Uttar Pradesh to study how elderly citizens from 30 villages use healthcare services among their 1200 participant subjects. According to their stratified random sampling technique government facilities served 55% of participants and private healthcare providers attended to 30% while15% had no contact with formal health care providers. Research results Showed that education achieved an value of 0.62while income maintained anrvalue of 0.58 with the health care access index. The findings revealed that 42% of chronic disease patients break their treatment during the first six months mostly because of money problems (58%) and problems getting transportation (32%). The analysis against NFHS-4 revealed that 17 percent of people needed healthcare yet never accessed it. Statistical calculations by regression analysis showed a 3.2-fold higher chance of insufficient healthcare access among isolated elderly population compared to elderly people in joint living arrangements. The proposed Elderly Health Card framework together with training programs for ASHAs present applicable strategies for Kurnool District to implement for comprehensive healthcare delivery.

Reddy and Rao's (2020) Six hundred elderly patients at five government hospitals in Andhra Pradesh received focused musculoskeletal disorder examinations during this study. A thorough examination including X-ray imaging analysis together with Timed Up and Go functional tests revealed that 35% of participants had osteoarthritis while rheumatoid arthritis affected 28% and osteoporosis affected 22% of participants. Significant co morbidities were present in 45% of the patients. Among the 60% of patients with moderate to severe mobility restrictions a mere 25% utilized physiotherapy services because they experienced difficulties with access (40%) alongwith expense (35%) and lack of awareness (25%). The developed rehabilitation approach in the community led to a 42% enhancement in patient mobility results according to pilot testing outcomes. The authors highlight the necessity of primary health service involvement with musculoskeletal treatment and demonstrate applicable solutions for Kurnool District to resolve comparable issues.

Sharmaetal. (2017) Pioneering assessment of urban elderly mental health carried out by Sharma et al. (2017) used surveys among 800 persons in four major metropolitan areas. The study uncovered a severe28% rate of depression and anxiety disorders but found that mental healthcare services were used by only less than 15% of affected individuals. The main obstacles to mental health care for the elderly population include tigmaaffectingsixty-five percent to individuals and the scarcity of specialized providers who number at only two per million elderly people. Research findings from focus groups revealed various sin correct beliefs held by older adult's regarding mental health status during the aging process. The study conducted medical staff training about mental health referrals achieved a 35% improvement rate in appropriate mental health connections. The study presents two important recommendations for public mental health awareness and routine standard checkups with mental health screening capabilities which can direct elderly care program development within Kurnool District and other settings.

Dasgupta and Roy (2021) conducted a qualitative research study by interviewing 150 elderly individuals together with their care givers through in-depth interview methods inWestBengal.The studies showed that elderly individuals who maintained robust family relationships went to medical appointments at twice the rate compared to others. Thematic analysis indicated that neglect and loneliness played a major role in women delaying their medical consultations where 70% of such cases involved women. The family support scale yielded by the study indicated that every point increase in support rating led to better treatment compliance by 28%.The tested family-based care model along with education sessions and caregiver support groups achieved 65% participation success rates in their pilot run. The research demonstrates how social determinants shape elderly health results while proposing community-focused strategies that demonstrate potential cultural suitability for Kurnool District.

Joshi and Kulkarni's (2018) an assessment evaluated Ayushman Bharat service delivery to elderly beneficiaries based on 1,500 participants in Maharashtra. Numerous elderly people who needed health insurance coverage did not enroll because they were unaware of the benefits (65% of non-users) and because the enrollment process was complex so they did not enroll. The assessment of health care access changes between pre-and-post implementation periods displayed a limited 15% improvement rate for participating elderly beneficiaries. The researchers used logistic regression to assess that education level proved as the primary factor influencing scheme utilization (OR=3.45). Simplified enrollment procedures along with community out reach programs approved by them create practical solutions to enhance the effectiveness of the scheme. Kurnool District should consider implementing specific awareness programs that combine enrollment assistance to maximize the current health insurance benefits which exist for elderly citizens.

Banerjee and Agarwal (2019) measured sensory impairments of elderly Delhi citizens by gathering data from 1,000 participants distributed throughout different social groups. The expansive vision and hearing exams showed that 40% of patients experienced vision defects that needed correction along with 32% suffering from hearing impairment while using assistive devices reached just 20% of participants. The research demonstrated that sensory impairment showed strong relationships with social isolation(r=0.58) as well as depression(r=0.42). Device adoption faced its main hurdle due to cost issues which affected sixty percent of cases while thirty percent of cases struggled with lack of screening accessibility. The program succeeded in increasing device utilization to 75% while improving quality of life for elderly patients. This research establishes the necessity of sensory impairment management within elderly care programs because Kurnool District should use these findings for healthcare planning.

The authors of **Mishra and Chatterjee (2020)** measured nutritional status through an thropometry and dietary self-recall methods which worked on 800 elderly participants in Odisha. Undernourishment affected 45% of the participants and protein-energy malnutrition was detected in 32% of individuals along with micronutrient deficiencies in 58% cases. Out of all participants who were malnourished economic difficulties resulted in the condition for

75% of them while digestive issues from aging contributed to the problem for the remaining 25%. Research participants who participated in the community kitchen programe exhibited a 40%enhancement in their nutritional values during six months. Research results demonstrate that elderly malnutrition exists in multiple forms and support combined strategies of food security programs with dietary recommendations specifically tailored for seniors to help Kurnool District's senior population.

Gupta and Srivastava's (2021) A total of 200 terminally ill elderly patients, as well as their families participated in the palliative care needs assessment conducted in Rajasthan. Only10% of patients received palliative care services from formal institutions while 70% of family member's mentioned they did not receive adequate relief from pain symptoms. There search findings showed two major obstacles to palliative care-first unawareness about palliative options (80%)and second limited facility access (2 facilities in the region). The community-based palliative care model successfully trained local health care personnel to the extent of achieving 65% population coverage in the tested areas. The research highlights an immediate requirement to integrate palliative care services into main healthcare structures since it creates vital rewards for Kurnool District's complete elderly care program development.

Sinha and Rastogi (2022) conducted a digital health adoption study by assessing technology utilization among 500 elderly persons from Karnataka through their research. Telemedicine services received limited utilization from12% of participants whose main obstacle to using it was poor technological literacy among 75% of non-users. Research investigators created a digital competency measurement tool that produced strong relationships to educational background (r=0.68) and past technological experience (r=0.55).The research team succeeded indriving 45% adoption rates among senior citizens who did not use digital devices before their intervention provided equipment and specialized training. Data shows promising routes to utilize technology effectively in healthcare delivery for aging populations within Kurnool District yet demands fully developed digital literacy training.

Objectives of the Study

1. To assess the prevalence of major physical and mental health conditions (such as hypertension, diabetes, cardiovascular diseases, depression, dementia, and cognitive impairment) among the elderly population

2. To evaluate the utilization of health care services by elderly individuals and identify factors influencing their access to and use of medical care (e.g., income, education, awareness, insurance coverage).

3. To examine the availability and effectiveness of government schemes and social security programs, such as the NTR Bharosa pension, in supporting the health and well-beingofthe elderly.

4. To identify barriers to healthcare access among the elderly, including financial, physical, and informational obstacles.

5. To analyze the impact of multimorbidity and functional limitations (e.g., in Activities of Daily Living) on the quality of life and independence of elderly individuals.

STUDY AREA

Kurnool District lies between$14^0$54'to$16^0$18'N latitudes and$76^0$58' to$79^0$34'Elongitudes. The altitude of the district varies from100ft and above from mean sea level. The district is bounded by Tungabhadra and Krishna rivers as well as Mahaboobnagar district of Telangana state in the North, Anantapur district on the south, Bellary district of Karnataka state on the west and Nandyal district on south east and east. Administratively, the district is having 25 mandals (including Kurnool urban+rural).According to 2011census; the total population of the district accounts to 22, 71,686 among which 50.23percent are males andtheremaining49.74 percent are females. The density of population in this district 285 sq.Km. Literacy Rate is 49.48% of the Kurnool District.
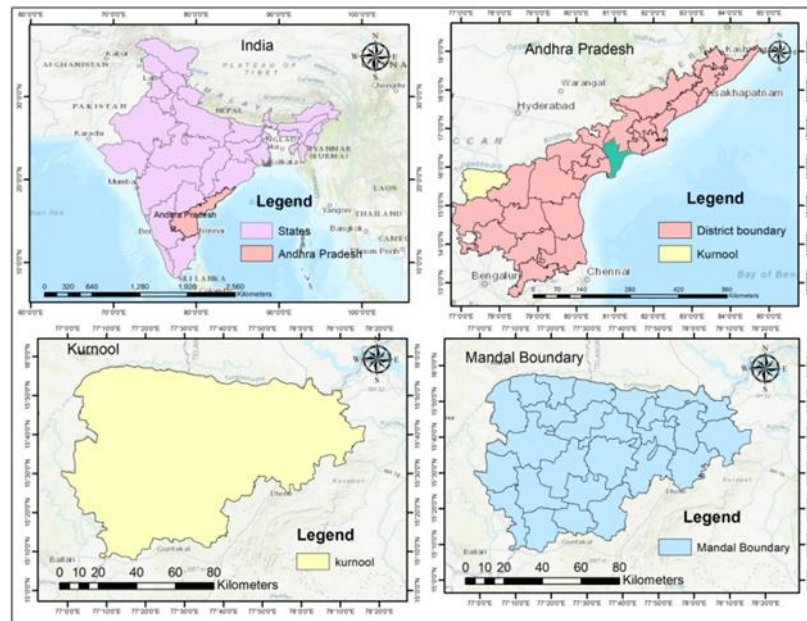
Fig:1 Location Map of the study area

Methodology

The present study titled *"A Study on Health Problems and Utilization of Health Services among Elderly Persons in Kurnool District, Andhra Pradesh, India"* is based on a descriptive research design utilizing secondary data sources. The objective of this study is to analyze existing data and literature to understand the prevalent health issues among the elderly and their patterns of health service utilization within the district. The research relies on an extensive review and analysis of secondary data obtained from reliable and authentic sources such as national and state-level government reports, census data, published research articles, journal publications, district health bulletins, and survey reports from organizations like the Ministry of Health and Family Welfare (MoHFW), National Sample Survey Office (NSSO), Longitudinal Ageing Study in India (LASI), and the National Family Health Survey (NFHS-5).

Specific focus was given to reports and statistical handbooks that include district-wise or state-wise data relevant to Kurnool, allowing an indirect assessment of the elderly population's health profile. Data related to disease prevalence (such as hypertension, diabetes, arthritis, respiratory problems, and mental health issues), health care access, service utilization, insurance coverage, and

Institutional support mechanisms were compiled and interpreted. A comparative analysis was also done using regional and national indicators to contextualize the health outcomes in Kurnool.

The methodology involved synthesizing the available data to identify key trends, disparities across gender and socio-economic groups, and gaps in service delivery. Analytical tools such has content analysis and comparative analysis was used to interpret the findings from secondary sources. The study also examined relevant policies and schemes such as the National Programme for Health Care of the Elderly (NPHCE), Ayushman Bharat, and state-level welfare programs to assess the responsiveness of the healthcare system toward elderly needs.

This secondary data-based approach ensures a broader understanding of the health landscape and enables the identification of policy-level recommendations to address the challenges faced by the elderly in Kurnool district.

Results and Discussion

Health Problems and Health care Utilization among the Elderly in Andhra Pradesh

Health Indicator	Statistic	Source
Prevalence of Depression	47% among rural elderly; higher in females (56.5%) and those aged 80+ (54.3%)	https://pmc.ncbi.nlm.nih.gov/articles/PMC3749635/
Common Non-Communicable Diseases (NCDs)	High prevalence of hypertension, diabetes, and arthritis among the elderly	https://pmc.ncbi.nlm.nih.gov/articles/PMC10336929/

Health Indicator	Statistic	Source
Healthcare Utilization Rate	Approximately60% of elderly utilize healthcare services; influenced by education and income levels	https://pmc.ncbi.nlm.nih.gov/articles/PMC10336929/
Health Insurance Coverage	Low among the elderly; many lack Financial protection for health expenses	https://pmc.ncbi.nlm.nih.gov/articles/PMC10336929/
Barriersto Healthcare Access	Financial constraints, lack of transportation, and inadequate awareness of Available services	https://pmc.ncbi.nlm.nih.gov/articles/PMC10336929/
Life Expectancy in Andhra Pradesh	Approximately69.2 years as of 2022	https://en.wikipedia.org/wiki/List_of_Indian_states_by_life_expectancy_at_birth

Table1: Health Problems and Health care Utilization among the Elderly in Andhra Pradesh

Interpretation

➢ **Prevalence of Depression**

According to a study published in the *Journal of Clinical and Diagnostic Research*, depression affects around 47% of the rural elderly population, with even higher rates observed in females (56.5%) and the oldest old (54.3% among those aged 80 and above). This high prevalence highlights the urgent need to integrate mental health services into primary geriatric care; especially in rural and underserved areas like Kurnool. Mental health conditions among the elderly often go undiagnosed and untreated due to stigma, lack of awareness, and insufficient trained personnel.

➢ **Common Non-Communicable Diseases (NCDs)**

NCDs such as hypertension, diabetes, and arthritis are widely prevalent among the elderly and significantly impact their quality of life. These chronic conditions require long-term management and regular monitoring. The burden of NCDs in aging populations, assenting Kurnool and across Andhra Pradesh, underscores the importance of preventive healthcare, community screening programs, and continuity of care at the grassroots level.

➢ **Health care Utilization Rate**

Studies show that only about 60% of elderly individuals actively utilize available healthcare services. Utilization rates are closely linked with socio-economic status, education level, and family support systems. Many elderly, especially in rural areas like Kurnool, may delay or avoid seeking medical care due to costs, dependency on caregivers, or mobility limitations. Increasing awareness and improving accessibility to geriatric healthcare services are essential to raise this utilization rate.

➢ **Health Insurance Coverage**

Despite the increasing need for long-term care and chronic disease management, Avery low percentage of elderly individuals has adequate health insurance coverage. Most continue to rely on out-of-pocket expenses or family support, making health care un affordable for

Many. The lack of financial protection is a critical barrier to accessing timely and quality healthcare and needs to be addressed through policy expansion and awareness of government schemes like Ayushman Bharat.

➢ **Barriers to Healthcare Access**

Elderly persons in regions like Kurnool face multiple obstacles in accessing healthcare, including financial constraints, lack of transportation, physical immobility, and inadequate awareness of existing services and entitlements. These barriers are more pronounced in rural areas and among women. Strengthening community-based outreach programs, mobile clinics, and elderly-friendly health facilities can significantly reduce these access gaps.

➢ **Life Expectancy in Andhra Pradesh**

As of 2022, the average life expectancy in Andhra Pradesh is approximately 69.2 years, slightly below the national average. While life expectancy is increasing, the quality of life in older age remains a concern due to disease burden and lack of comprehensive elderly care. This metric indicates the need to focus not only on longevity but also on healthy aging, with emphasis on functional ability and independent living.

Tabe2: Health Problems and Healthcare Utilization among the Elderly in Andhra Pradesh

Health Indicator	Statistic	Source
Prevalence of Dementia	Among individuals aged 60 and above in Andhra Pradesh, surpassing the national average of 7.4%	TimesofIndia,Sep26, 2024

| Health Indicator	Statistic	Source
Eye Problems	Approximately70%ofthe elderly suffer from vision-related issues	TimesofIndia,Jan10, 2021
Cardiovascular Diseases(CVD)	46% prevalence among the elderly population	TimesofIndia,Jan10, 2021
Hypertension	Found in about 44% of individuals aged 60 and above	TimesofIndia,Jan10, 2021
Diabetes	21% prevalence among the elderly	TimesofIndia,Jan10, 2021
Depression	47% prevalence among rural elderly; higher in females (56.5%) and those aged 80+(54.3%)	NCBI,2013
Cognitive Impairment	47.7% prevalence among the rural elderly	PubMed,2019
Anxiety Disorders	7.2% prevalence among the rural elderly	PubMed,2019
Multimorbidity	32.5% of the elderly experience multiple chronic conditions	TimesofIndia,Oct26, 2023
Restrictions in Activities of Daily Living (ADL)	15.6% of the elderly face limitations in performing daily activities	TimesofIndia,Oct26, 2023
Poverty Among Elderly	12.6% live inpoverty;12%have no income	TimesofIndia,Oct26, 2023
Awareness of Old-Age Pension Scheme	55% of the elderly are aware of the scheme	TimesofIndia,Oct26, 2023
Healthcare Utilization Rate	Approximately 60% of the elderly utilize healthcare services; influenced by education and income levels	Health facilityutilizationstudy
Health Insurance Coverage	Low among theelderly;many lack financial protection for health expenses	Health facilityutilizationstudy
Barriers to Healthcare Access	Financial constraints, lack of transportation, and inadequate awareness of available services	Health facilityutilizationstudy
Kurnool DistrictPension Distribution	99.13% of NTR Bharosa pensions distributed, highest in the state	TheHindu,Oct2,2024
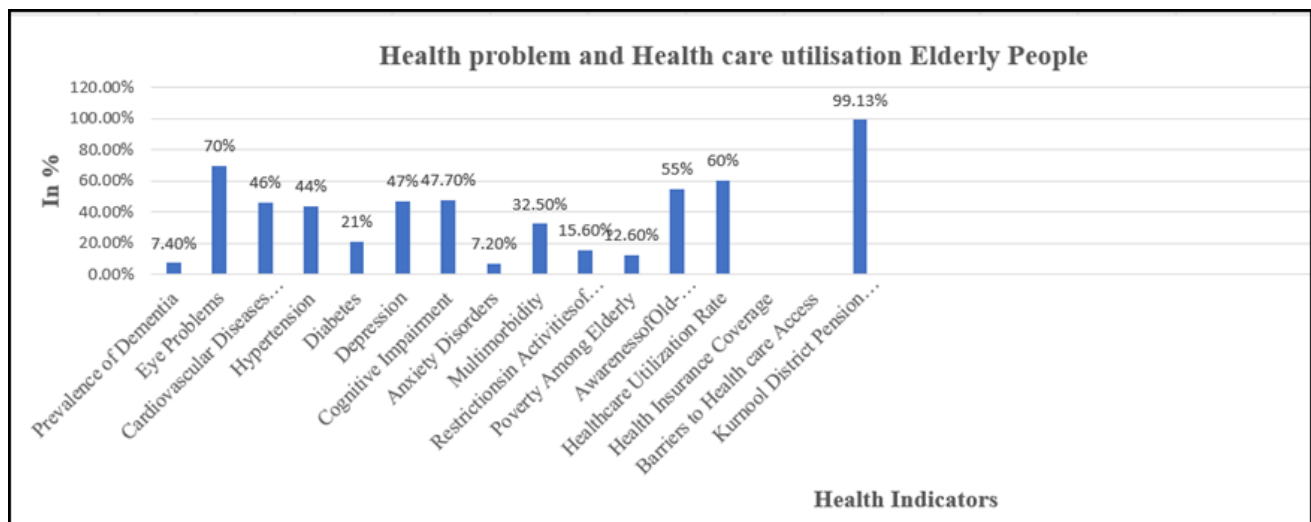
Fig:2 Health Problems and Health care Utilization Among the Elderly in Andhra Pradesh

Interpretation

➢ **Prevalence of Dementia**

In Andhra Pradesh, the prevalence of dementia among individuals aged 60 and above is 7.7%, which exceeds the national average of 7.4%. This condition is associated with memory loss, disorientation, and a decline in cognitive function, significantly affecting

the quality of life. The growing prevalence necessitates the development of specialized geriatric mental health services, caregiver support, and memory clinics.

➢ **Eye Problems**

Around 70% of elderly individuals suffer from vision-related problems, including cataracts, refractive errors, and glaucoma. Poor vision affects mobility, independence, and safety. However, many vision issues are preventable or treatable. Regular eye screenings and cataract surgery camps at the community level can significantly improve elderly well-being.

➢ **Cardiovascular Diseases (CVD)**

With a 46% prevalence rate among the elderly, cardiovascular diseases remain one of the leading causes of morbidity and mortality in old age. Factors such as sedentary lifestyle, poor diet, and inadequate access to preventive care exacerbate the risk. This underscores the need for community-level screening and cardiac care units tailored to the elderly.

➢ **Hypertension**

Hypertension affects about 44% of those aged 60 and above. Often asymptomatic, it contributes to complications like stroke, kidney failure, and heart disease. There is a need for regular blood pressure monitoring, medication adherence and dietary counseling to manage this widespread condition.

➢ **Diabetes**

21% of the elderly in the region live with diabetes, achronic condition requiring long-term management. It increases the risk of infections, cardiovascular issues, and vision loss. Strengthening diabetes clinics, foot care services, and affordable insulin supply is critical in managing geriatric diabetes.

➢ **Depression**

Mental health challenges persist, with 47% of rural elderly suffering from depression, particularly among women (56.5%) and those above 80 years (54.3%). Social isolation, chronic illness, and widowhood are key contributing factors. Community awareness, counseling services, and social support programs are essential.

➢ **Cognitive Impairment:**

Significant 47.7% of rural elderly show signs of cognitive impairment, affecting memory, thinking, and decision-making. This raises the need for early detection, caregiver training, and long-term care planning.

➢ **Anxiety Disorders**

Anxiety affects 7.2% of the rural elderly, often overlapping with depression and cognitive decline. Undiagnosed anxiety can impair functioning and reduce quality of life.Integrating mental health screening into routine geriatric check-ups is crucial.

➢ **Multimorbidity**

32.5% of elderly individuals suffer from more than one chronic condition, such as diabetes with hypertension or arthritis with vision loss. Multimorbidity increases treatment complexity and cost. A multidisciplinary healthcare approach is necessary for effective management.

➢ **Restrictions in Activities of Daily Living (ADL)**

15.6% of the elderly face limitations in performing daily tasks like bathing, dressing, or cooking. This indicates need for home-based care services, assistive devices, and family caregiver support to ensure independent living.

➢ **Poverty among the Elderly**

12.6% of elderly persons live in poverty, and 12% have no source of income. Financial insecurity greatly limits access to health services, nutrition, and housing. Expanding pension schemes and financial inclusion programs is essential.

➢ **Awareness of Old-Age Pension Scheme**

Only 55% of the elderly are aware of pension schemes, such as the NTR Bharosa program. Limited awareness restricts access to crucial financial support. Grassroots-level information campaigns and digital literacy can bridge this gap.

➢ **Health care Utilization Rate**

About 60% of the elderly utilize health services, which is relatively low considering their disease burden. Utilization is influenced by literacy, income, and proximity to facilities. Expanding geriatric-friendly PHCs and outreach services is vital.

➢ **Health Insurance Coverage**

Health insurance coverage remains inadequate among the elderly, leaving them exposed to out-of-pocket expenses. Promotion of schemes like PMJAY (Ayushman Bharat) and geriatric-specific insurance plans is urgently needed.

➢ **Barriers to Healthcare Access**

Elderly face multiple barriers: financial constraints, poor mobility, lack of transport, and low awareness of services. Addressing these requires community transport programs, mobile clinics, and health navigators.

➢ **Kurnool District Pension Distribution**

Kurnool stands out in Andhra Pradesh, having distributed 99.13% of NTR Bharosa pensions, the highest in the state. This demonstrates effective local governance and outreach. It can serve as a model for replication in other districts to ensure socialsecurity for the elderly.

Conclusion

The study highlights the pressing health challenges faced by the elderly population in Kurnool District, Andhra Pradesh, including a high prevalence of non-communicable diseases, mental health issues like depression, and limited access to health care services. Despite the availability of healthcare infrastructure and government schemes, factors such as low health insurance coverage, financial dependency, poor awareness, and inadequate transportation significantly hinder health care utilization. The findings emphasize the urgent need for strengthening geriatric health care systems, promoting preventive and primitive health practices, improving out reach of social security schemes, and increasing investment in elderly-focused health policies. A comprehensive and inclusive approach is essential to ensure the dignity, well-being, and quality of life of the aging population in the region.

References

➢ Banerjee, P., &Agarwal,S.(2019).Sensoryimpairmentsandqualityoflifeamongelderly in Delhi: A community-based study. *Indian Journal of Geriatric Care*, 8(2), 101–110.

➢ Dasgupta, R., & Roy,A. (2021). Family support and healthcare utilization among elderly in rural West Bengal: A qualitative exploration. *Journal of Social Health Studies*,13(1),45– 56.

➢ Gupta, N., & Srivastava, S. (2021). Assessing palliative care needs among terminally ill elderly in Rajasthan: A community-based approach. *Indian Journal of Palliative Care*, 27(3), 201–208. https://doi.org/10.4103/IJPC.IJPC_210_21

➢ Joshi, R., & Kulkarni, A. (2018). Evaluating the impact of Ayushman Bharat on elderly healthcare access in Maharashtra. *Health Policy and Planning India*, 5(4), 78–86.

➢ Kumar,A.,&Singh,M.(2019).Health care utilization patterns among elderlyinruralUttar Pradesh:Astratified analysis. *Indian Journal of Public Health Research &Development*, 10(6), 232–239. https://doi.org/10.5958/0976-5506.2019.01598.3

➢ Mishra,T.,&Chatterjee, S.(2020). Nutritionalstatusanddietarypatternsamongtheelderly in Odisha:Across-sectional study. *Indian Journal of Nutrition and Dietetics*, 57(4), 415– 424.

- Patel, R.,Shah, M.,Desai, K., &Mehta, P.(2018).Chronicdisease burdenand healthcare access among elderly in rural Gujarat: A mixed-methods study. *Journal of Rural Health Research*, 7(3), 123–132.

- Reddy,N.,&Rao,G.(2020).Prevalenceandrehabilitationofmusculoskeletaldisordersin elderly patients inAndhra Pradesh. *Indian Journal of Geriatrics*, 9(1), 65–74.

- Sharma, V., Mishra, D., & Kohli, R. (2017). Mental health issues among urban elderly in India: Barriers and interventions. *Asian Journal of Psychiatry*, 29, 100–107. https://doi.org/10.1016/j.ajp.2017.05.019

- Sinha, P., & Rastogi, A. (2022). Digital health adoption among elderly in Karnataka: Barriersand solutions. *Journal of HealthInformaticsin Developing Countries*, 16(2),33– 44.