

Research Article

ASSESSMENT OF PREVALENCE AND FACTORS RELATED TO HEALTH ISSUES AMONG WOMEN ATTENDING TO HOSPITAL SETTINGS IN VISAKHAPATNAM

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ABSTRACT

This research aims to investigate the prevalence of diseases to the susceptible women and their associated factors, particularly in developing countries with a focus on India. Our study is a prospective observational study involving 300 study participants who are facing various kinds of problems such as reproduction, malnutrition, sanitation, mental health disorders, genetical disorders & chronic diseases at tertiary care hospital Anil Neerukonda Hospital in Visakhapatnam district. The Information was obtained through direct interaction with patients from different departments and they're diagnosed through patient medical report, laboratory report & general examination. In the study, 300 sample size was taken. Women about 40% belong to 51-65 age group were attending with different disease conditions and most of the women are suffering with Gynaecological, Nephrological and Neurological diseases. We reported a prevalence of factors like Age (18.8%), Life style choice (14.4), Environmental factors (13.5), Nutritional deficiency (13.5). The statistical analysis performed are Degrees of freedom and Prevalence. The chi square test resulted as 79.592 and degrees of freedom is 8. The chi square trend is equal to 17.115 and P value observed is (>0.000). This shows there is a significance linear trend among Age, Life style choice, Nutritional deficiency and disease condition among women. Women's health issues encompass a diverse range of medical conditions that effect their physical, mental and social well-being across various life stages. Many factors like Age, Lifestyle choices, Environmental conditions and Nutritional deficiency observed commonly effecting women health conditions.

Keywords: Women's health, Anemia, Chronic diseases, Reproductive health, Multimorbidity.

INTRODUCTION

Health is recognized as a basic human need. A woman's health status directly reflects the health status of the country. Biological, social and cultural factors such as poverty, illiteracy, early marriage, domestic abuse, unemployment, gender discrimination, under-utilization of health services, hunger and many more are intricately linked to women's health. The well-being of women will include attention to nutrition and healthcare, highlighting the requirements of women and girls throughout all phases of life. In India, the condition of women is poorer than in other nations. In many societies, women are the most disadvantaged group when it comes to health services. They are the most affected groups from conception to the end of their lives by insufficient medical care during pregnancy, infancy, girlhood and womanhood. They lack access to

food, healthcare, education and moral support. Statistical epidemiology of women's health reveals that globally women live longer than men but more prone to higher rates of health-related issues. All over the world, 70% of women have limiting access to nutrition, education and health care (World Health Organization, 2021). The factors influencing health status are closely interconnected. It includes a variety of factors, such as biological, social, cultural, environmental and economic, that impact women's health conditions (Monica Singh *et al.*, 2021). According to the Centers for Disease Control and Prevention, women aged 18 to 44 are categorized as being of childbearing age. Women who are pregnant and have OW/OB, T2DM or hypertension also increase the risk that their children will experience these health issues in the future (Winkleby *et al.*, 1992).

In 20s: Early adulthood is an exciting and transformative stage of life, but it's also a critical time to establish habits that support long-term health. In your 20s, prioritizing cervical cancer screening is crucial. Those assigned female at birth should ask their doctor about cervical cancer screenings. These often start in your early 20s. The American Cancer Society says those 25 to 65 with a normal risk should get screened. This includes HPV testing every five years. However, the screening schedule may vary based on test results, personal risk factors and medical history. In 30s: In your 30s, it's important to continue cervical cancer screenings and STI tests as needed. Additionally, screenings for diabetes. "Diabetes testing is generally recommended starting at age 35. However, individuals with certain risk factors may need to be tested earlier."

In 40s: Metabolism may slow down, hormone levels fluctuate and the risk of chronic conditions such as heart disease, diabetes and osteoporosis increases. Cardiovascular Diseases: A range of medical conditions and lifestyle choices can lead to the onset of cardiovascular diseases. Diabetes: Middle-aged women are more likely to develop the disease. Eating disorders and coronary heart diseases can lead to diabetes in women. Hypertension: Upon entering middle age, women have a higher tendency to experience hypertension, anxiety and related mental health concerns. Osteoporosis: Osteoporosis is a disease that weakens bones. This weakening makes them easy to break. Women after menopause face an increased risk of developing osteoporosis. Obesity: Approximately 41% of women aged 65 to 75 years fall into this category. Obesity happens when people consume too many calories. Alzheimer's Disease: Women older than 65 face an increased risk of developing Alzheimer's disease. The onset of Alzheimer's disease is influenced by various biological and social factors (Dodson *et al.*, 2025)

Socioeconomic factors like poverty, limited access to education and insufficient healthcare services worsen anemia, elevated fertility rates, irregular body mass index, malnutrition, and obesity (Sambamoorthi *et al.*, 2003). Healthcare Access: Healthcare access greatly affects health. Socioeconomic status also plays a big role. Women with lower incomes often struggle to get good healthcare. Many lack insurance. High costs can be a barrier. They may also live far from needed services (Pabayo *et al.*, 2014). Reproductive Wellness: Socioeconomic status greatly affects reproductive health. Lower status means more unintended pregnancies. It also results in worse pregnancy outcomes. Poorer people have less access to reproductive healthcare too (Saxena *et al.*, 2023) Reproductive Health: Nutrients such as folic acid are essential for the development of the fetus, while iron is important in preventing anemia, which frequently occurs during pregnancy. Adequate nutrition is essential for women facing the physical and mental challenges of perimenopause and menopause (Centers for Disease Control and Prevention, 2018). Bone Health: Women face a greater risk of osteoporosis compared to men, especially after menopause. Women often eat healthy foods rich in calcium and vitamin D. These nutrients are key for strong bones. They help keep bones dense and healthy.

Health and nutrition significantly impact the overall growth and welfare of women. The Proper nutrition during adolescence is important not only for reaching maximum growth potential and optimal health but also for preventing chronic diseases in adulthood (Boini *et al.*, 2024). The Social, Cultural, and Humanitarian Committee (SOCHUM) is responsible for tackling the socio- cultural factors impacting women's health. Lack of education contributes to minimal social, economic and cultural advancement in nations where most of the population resides at or beneath the poverty level. Despite the presence of various negative factors, the fertility rate among low-income groups remains quite high, accompanied by limited social interaction and cultural adherence. Key factors contributing to malnutrition in India include economic disparities (Zahan *et al.*, 2014). A number of sociocultural factors hinder women and girls from obtaining quality healthcare and reaching the best possible health outcomes which includes disparate power dynamics between males and females, social norms that limit access to education Environmental pollutants are dangerous chemicals which are harmful to the human health. environmental factors play an important role in affecting women's health. Air pollution can lead to breathing problems and issues during pregnancy, such as low birth weight. Drinking dirty water can cause infections and affect menstrual and maternal health. Therefore, a healthy environment is very important for the overall health of women (Stillerman *et al.*, 2008). Chronic health problems can affect women in many ways throughout their lives. Hormonal changes during periods, pregnancy and menopause can impact their mood, bones, and heart health. Women are more likely to have certain long-term illnesses such as autoimmune diseases, osteoporosis, breast and cervical cancer, and chronic pain. Mental health issues like anxiety, depression and eating disorders are also more common in women and can last for many years. Unhealthy daily habits, such as lack of exercise, poor diet, smoking or drinking too much alcohol, can lead to serious health problems like heart disease, diabetes and obesity (National Academies of Sciences, Engineering, and Medicine, 2024). The way we live our daily life has a impact on women health and well-being. A healthy life style including a balanced diet, hydration and regular exercises can greatly benefit women health and also reduce the risk of serious health issues like obesity and cardiac diseases. Many women struggle with PCOS a common hormonal condition in women causing irregular periods. Unhealthy habits like limited exercise, irregular sleep shows worsen symptoms in women mostly in urban (Lim *et al.*, 2012). Women health is tied to biological aspects like hormones, genetics and their reproductive cycles and affecting their over well-being and risk of diseases like Stroke and Osteoporosis (Regitz-Zagrosek *et al.*, 2012).

MATERIALS AND METHODS

The study was conducted across all departments of Anil Neerukonda hospital (ANH), Visakhapatnam, a tertiary care facility known for its comprehensive medical services and advanced treatment options. This study is a prospective observational study. The study involved 300 patients with various conditions receiving treatment at hospital. Participants were enrolled after providing written consent

through an informed consent form (ICF). The research lasted for duration of 8 months.

RESULTS AND DISCUSSION

Here are the results of the parameters that are taken into consideration of the study. Out of 300 study population, in figure 1 we observed that women were in the age range of 20-30 years with 13.3 %, 31-40 years with 18%, 41-50 years with 28.6 % and 51-65 years with 40%. Women attending hospitals were minimum in age group in 20-30 years and maximum in 51-65 years. Mean of this above data is 75. median 70 and Standard deviation 35.64 was observed in our study. In figure 2, we observed that Marital

status of that Women who were attending hospitals were unmarried was about 3.6% and women who were married is about 96.3 %. Standard deviation of this data was 196.57. In our study, in figure 3 we observed that majority of women are Illiterate with 62.3 % followed by 37.6 % are Literate who were attending tertiary hospitals. Standard deviation of above data was 52.32 observed in our study. In figure 4, we observed that majority of women attending hospitals are from low socio-economic status with 84.3 % and 15.6% of women are from average socio-economic status and the standard deviation of the data was 134.56 in our study. In fig 5, we observed that majority of women attending hospitals are from Rural areas with 61.3% and from urban areas with 38.6% in our study.

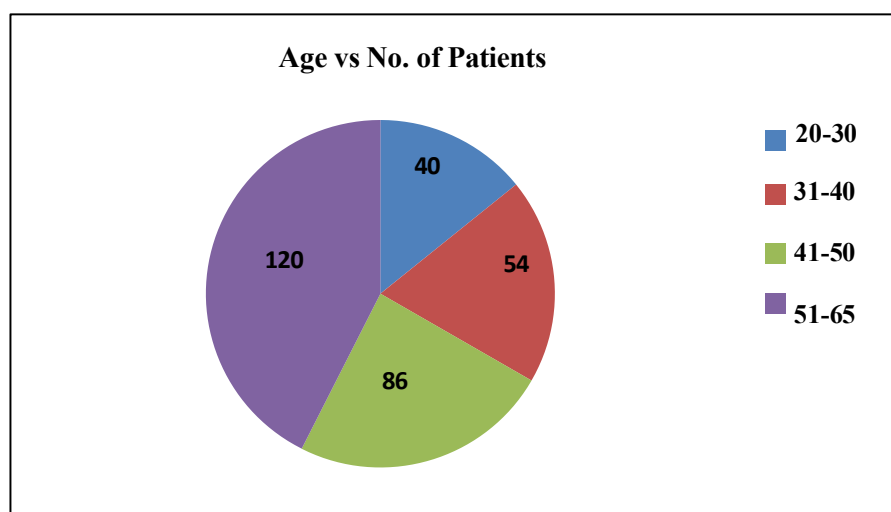


Figure 1. Graphical representation of Age vs No. of patients.

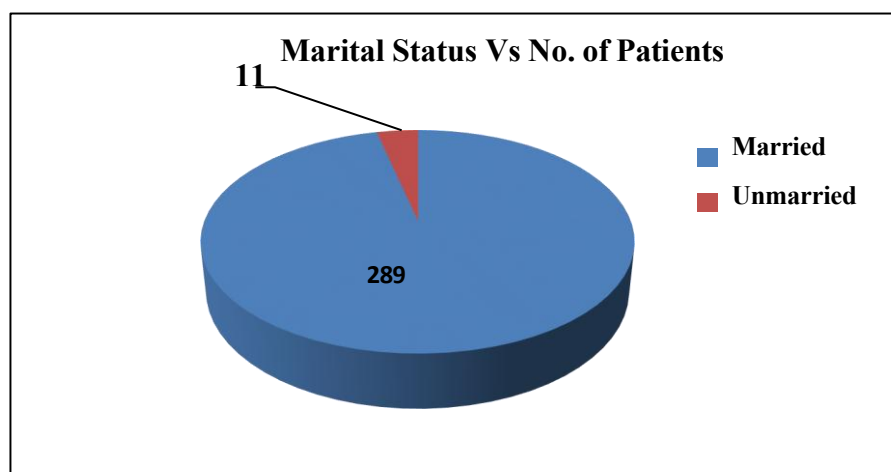


Figure 2. Graphical representation of Marital Status vs No. of patients.

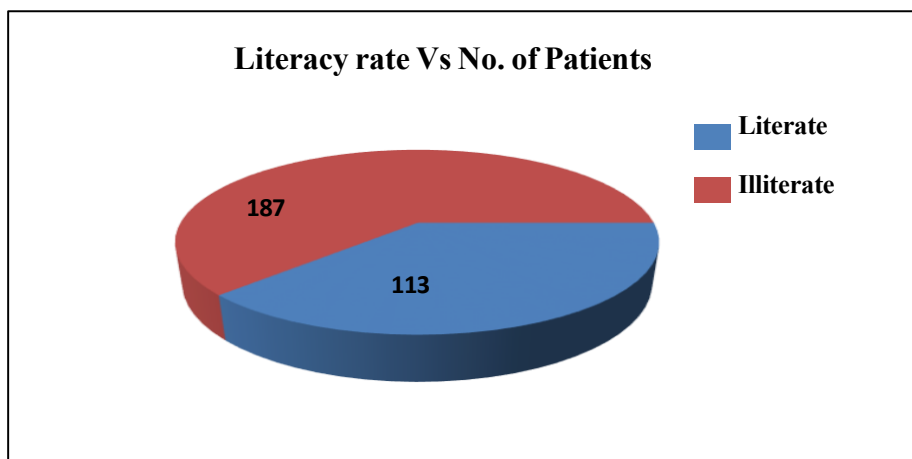


Figure 3. Graphical representation of Literacy rate Vs No. of Patients.

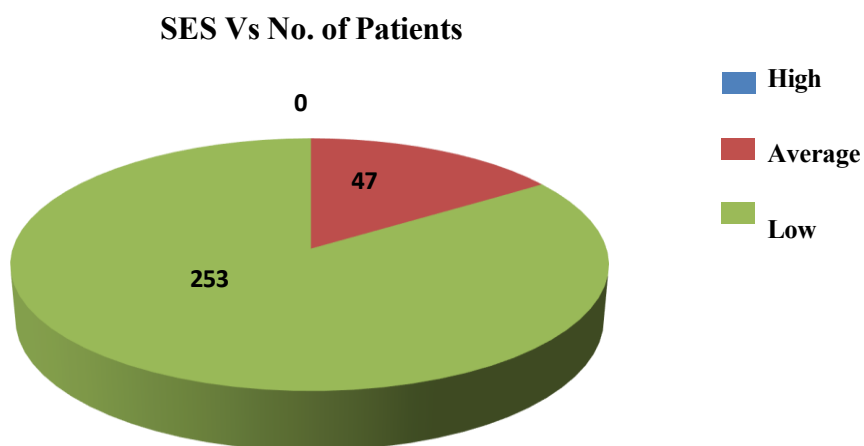


Figure 4. Graphical representation of SES Vs No. of Patients.

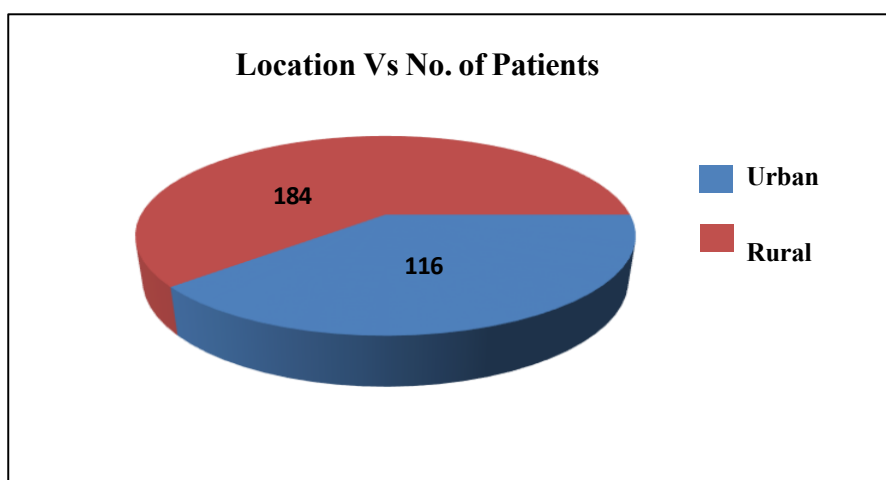
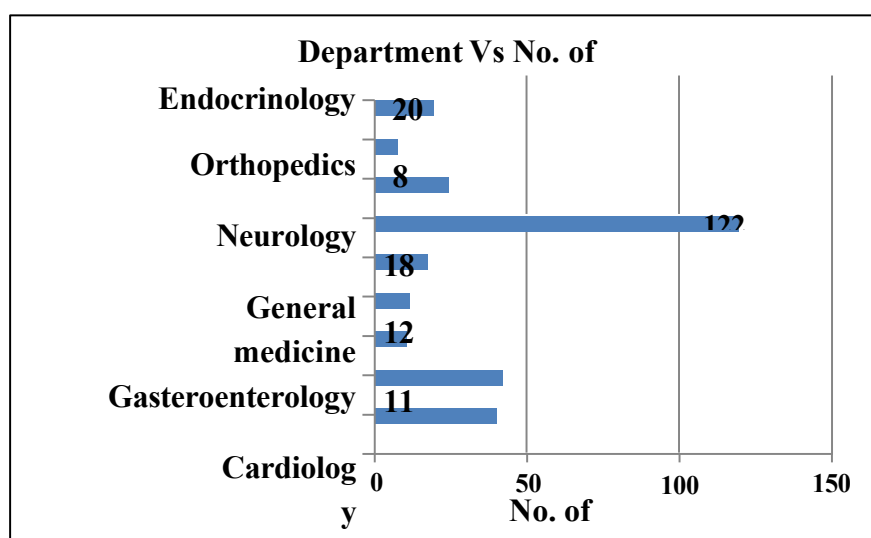


Figure 5. Graphical representation of Location Vs No. of Patients.

Table 1. Tabular representation of population attending departments.

Departments	No. of patients	Percentage (%)
Gynaecology	41	13.6
Nephrology	43	14.3
Urology	11	3.6
Cardiology	12	4
Gastroenterology	18	6
General medicine	122	40.6
Neurology	25	8.3
Orthopedics	8	2.6
Endocrinology	20	6.6

**Figure 6.** Graphical representation of Department Vs No. of Patients.

Out of 300 study population, from figure 6 we observed that majority of women attending General ward with 40.6%, followed by 14.3% attending Nephrology ward, 13.6% attending Gynaecology ward, 8.3% attending Neurology ward, 6.6% attending Endocrinology, 6% attending Gastroenterology, 4% attending Cardiology ward, 3.6% attending Urology ward and 2.6% attending Orthopedic ward. Mean value of the above data is 33.3, median value is 20 and standard deviation is 35.51 in our study. We observed that majority of women attending Gynaecology ward with problems of AUB with Anaemia about 60.9 % followed by Bartholin's cyst about 12.1%, Post menopausal bleeding 9.7%, Fibroid uterus 7.3% and others with 9.7%. Mean value of the above data was 8.2, median value was 4 and standard deviation was 9.41 in our study. We observed that majority of women attending Nephrology ward with problems of CKD with hypertension was about 39.5% followed by only CKD with 20.9%, AKD with 13.9%, SLP with nephritis with 9.3%, Nephrotic syndrome with 9.3% and Others with 6.9 %. Mean value of the above data was 7.6, median value was 6 and standard deviation was 5.85 in our study. we observed that majority of women attending Neurological ward with problems Nerve related problems with 32%, followed by Hemiparesis

with 20%, Seizures with 12%, Migraine with 12%, Stroke with 8%, Sclerosis with 8% and Others with 8%. Mean value of the above data was 3.5, median value was 3 and Standard deviation was 2.22 in our study. We observed that majority of women attending Urology ward with problems Calculi formation with 45.3 % followed by Nephrosis with 36.3% and UTI with 18.1%. Mean value of above data was 3.67, median value was 4 and standard deviation was 1.25 in our study. We observed that majority of women attending Cardiology ward with problems Heart failure 33.3% followed by Stroke with 33.3%, CAD with 16.6% and Others with 16.6%. Mean value of the above data was 3, median value was 3 and Standard deviation was 1.15 in our study. We observed that majority of women attending Endocrinology ward with problems DM Type 2 with 60% followed by Hypothyroidism with 25% and others with 15%. Mean value of the data was 6.6, median value was 5 and Standard deviation was 4.72 in our study. We observed that majority women attending General medicine ward with problems Gastro problems with 17.2% followed by cardiac problems with 16.3%, pulmonary diseases with 15.5%, Neuro diseases with 12.2, Hematological problems with 9.8%, Nephrological diseases with 9%, Acute febrile illness with 4.9%, Endo problems with 4%, Infections with 3.2%

and others with 4%. mean value of the above data was 11.9, median was 11 and Standard deviation was 6.75. We observed that majority of women attending Orthopedic ward with problem Fractures with 50%, followed by Arthritis with 25% and Infections with 25 %. Mean value of the above data was 2.6, median was 2 and Standard deviation was 1.15 in our study. We observed that majority of women attending Gastroenterology ward with problem Jaundice with 27.7%, CLD with 22.2%, Liver infections with 16%, Pancreatitis with 11.1% and Others with 22.2 %. Mean value of the above data was 3.6%, median 4% and Standard deviation was 1.14 in our study. Out of 300 study population, it was observed that majority of women attending hospitals with major factor Age with 18.8%

followed by Life style choices with 14.4%, Nutritional deficiency with 13.5%, Environmental condition with 13.5%, Chronic diseases with 10.9%, Genetics with 10.3%, Reproductive health with 9.1%, Educational attainment with 4.8% and Mental health with 4.3%. Mean value of the above data was 69, median value was 68 of the above data. The statistical analysis performed are Degrees of freedom and Prevalence. The chi square test resulted as 79.592 and degrees of freedom is 8. The chi square trend is equal to 17.115 and P value observed is (>0.000). This shows there is a significance linear trend among Age, Life style choice, Nutritional deficiency and disease condition among women.

Table 2. Tabular representation of factors affecting women's health in study population.

Factors	No. of patients	Percentage (%)
Age	117	18.8
Nutritional deficiency	84	13.5
Genetics	64	10.3
Chronic diseases	68	10.9
Environmental condition	84	13.5
Educational attainment	30	4.8
Mental health	27	4.3
Reproductive health	57	9.1
Life style choice	90	14.4

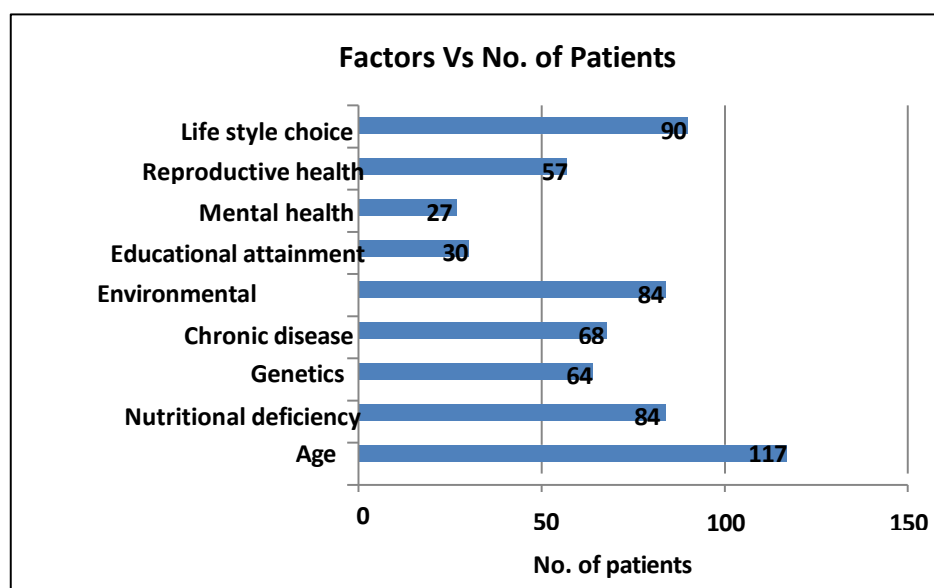


Figure 7. Graphical representation of factors affecting women's health in study population.

Table 3. Tabular representation of Haemoglobin Vs No. of patients.

Haemoglobin levels	No. Of patients	Percentage (%)
Not anaemic	45	15
Moderate anaemia	180	60
Anaemia	49	16.3
Severe anaemia	14	4.6
Critical anaemia	12	4

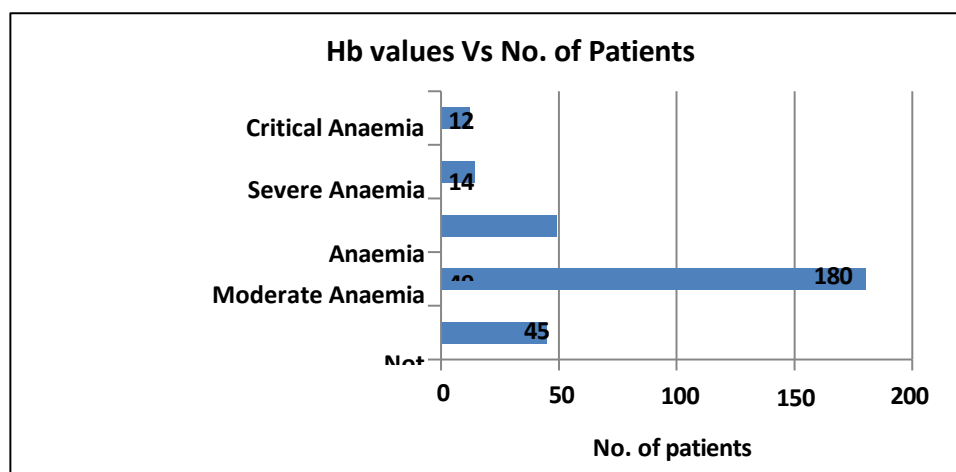


Figure 8. Graphical representation of Haemoglobin levels in study population.

Table 4. Tabular representation of Multimorbidity Vs No. of patients.

Age group	No. of patients	Percentage
20-30	9	3
31-40	9	3
41-50	28	9.3
51-65	45	15

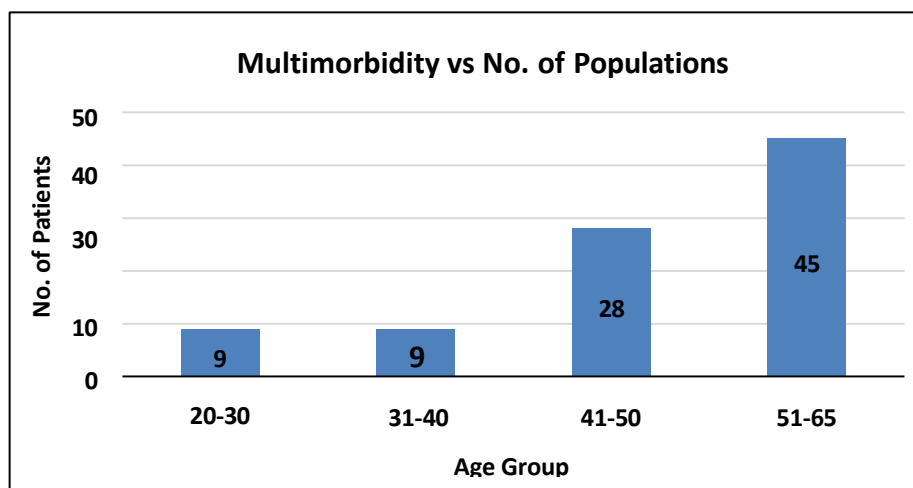


Figure 9. Graphical representation of Multimorbidity in study population.

Out 300 study of populations, from figure 8 it was observed that majority of women attending hospitals were in Moderate anaemic condition with 60%, followed by Anaemia with 16.3%, Not in anaemic condition with 15%, Severe anaemia with 4.6% and Critical anaemic condition with 4%. Mean value of the data was 60, median value was 45 and Standard

deviation was 69.22 observed in our study. Out of 300 study population, from figure 9 it was observed that majority multimorbidity conditions was observed in age group 20-30 years with 3%, age group 31-40 years with 3%, age group 41-50 with 9.3% an age group 51-65 with 15%. Mean of this data was 22.7, Median value was 18.5 and Standard

deviation was 17.32 was observed in our study.

Table 5. Tabular representation of Weight Vs No. of patients.

Weight	No. Of patients	Percentage
Under weight	100	33.3
Normal weight	80	26.6
Over weight	70	23.3
Obesity	50	16.6

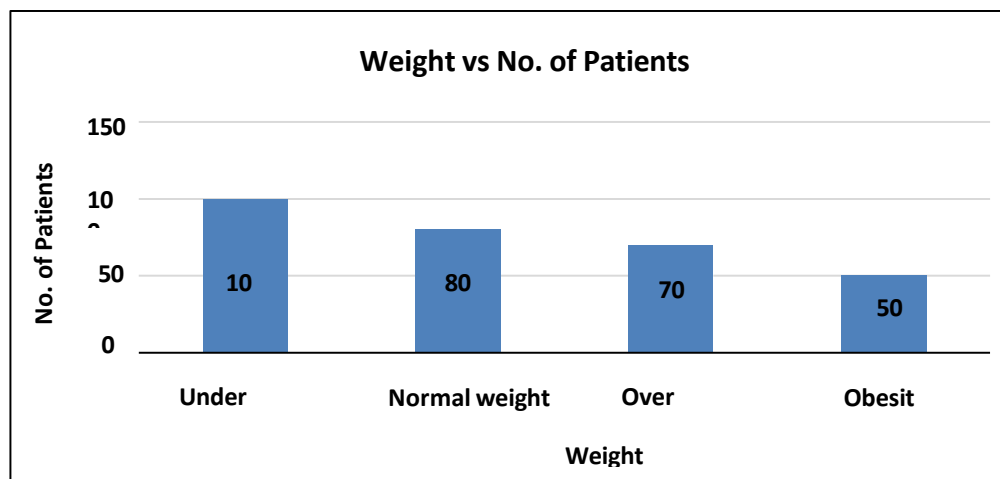


Figure 10. Graphical Representation of Weight in study population.

Out of 300 study populations, from figure 10 it was observed that majority of women attending hospitals were under-weight with 33.3% followed by Normal weight with 26.6%, Over weight with 23.3% and Obesity with 16.6 %. Mean of the value above data is 75, median value is 75 and Standard deviation value was 20.8 observed in our study.

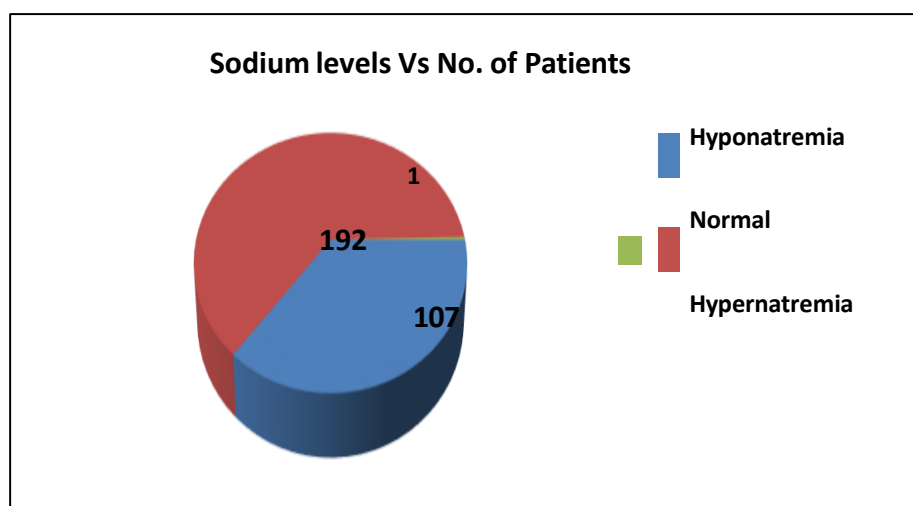


Figure 11. Graphical Representation of Sodium levels in study population.

Out of 300 study population, from figure11 it was observed that majority of women attending hospital observed Normal values with 64% followed by Hyponatremia with 35.6% and Hypernatremia with 0.3%. Mean value of the above data was 100, median value was 107 and Standard deviation was 95.69 observed in our study. From fig 12 it was observed that majority of women attending hospitals

observed Normal values in 73.3% people, followed with Hypokalemia with 22.6% and Hyperkalemia with 4%. mean value of above data is 100, median value was 68 and Standard deviation was 107.62 was observed in our study. From fig 13 it was observed that majority of women attending hospital observed normal levels with 58.3% followed by Hyperchloremia with 23.3% and

Hypochloremia with 18.3. Mean of the above data was 100, median value was 70 and Standard deviation was 65.38.

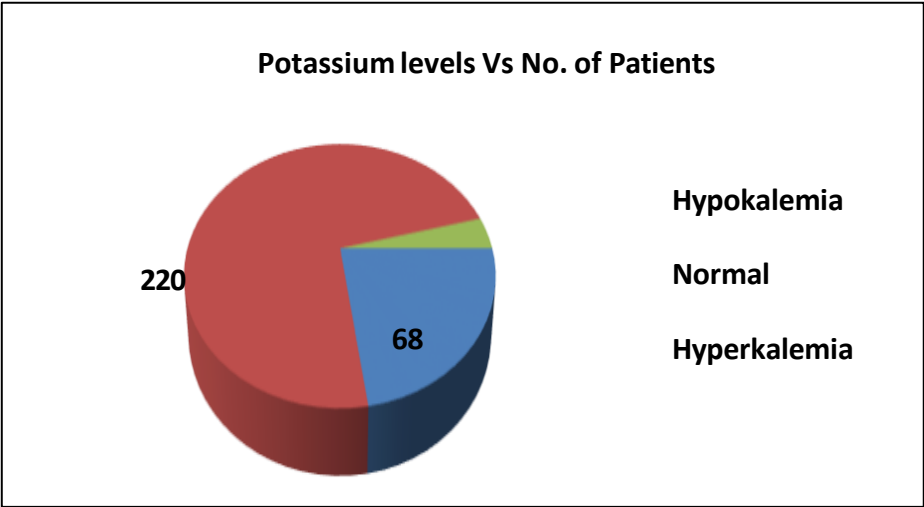


Figure 11. Graphical Representation of Sodium levels

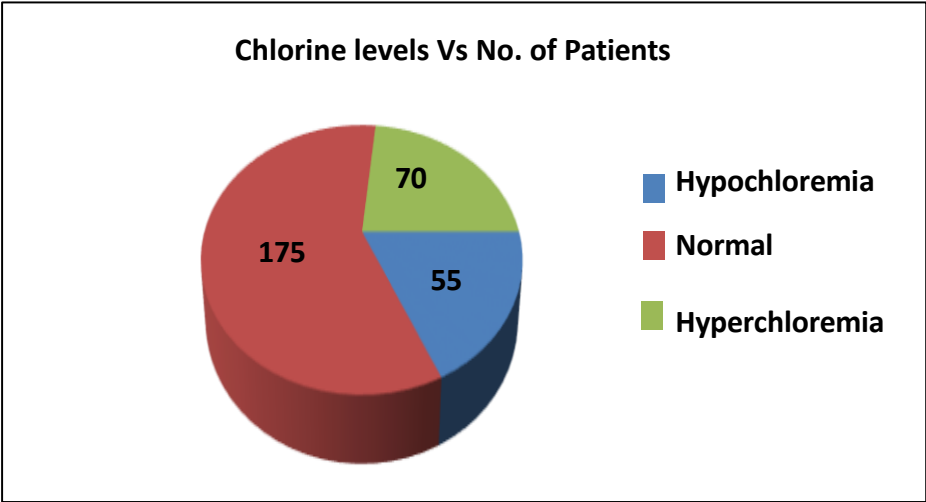


Figure 12. Graphical Representation of Chlorine levels in study population.

Our study is a prospective observational study which includes 300 subjects who admitted in Anil Neerukonda hospital, located in sangivalasa, Visakhapatnam district. It provides tertiary care for women in hospital settings. As a tertiary care hospital, it offer specialized medical care including advanced diagnostic and therapeutic procedures for complex health issues. A total of 300 participants had enrolled in the study where the age wise distribution showed that above middle-aged women were more attending hospitals due to different factors effecting health issues which was highlighted in study findings from the Australian Longitudinal study on Women's Health which shows that mid aged and old aged were more prone to chronic diseases (Lucke *et al.*, 2007). The economic status analysis of our study revealed that 15.6% belong to average income, 84.3 % belong to low income. Moreover, higher percentage of patients were below poverty line causes poor health of women. The most common factors effecting women health issues identified in our study are Age (18.8%), Life style choices (14.4%), Environmental conditions (13.5%). These results combine with previous studies which highlights age and lifestyle choices were common factors effecting women health in a population-based cohort study conducted on women in North of the Netherlands (Yihui Du *et al.*, 2024).

The literacy rate of participants in our study revealed that 37.6% were literates 62.3% were combination of illiterates and poorly literate which is highlighted in the cross-sectional research study conducted on women in a Turkey city center which shows that largest number of patients were in low-insufficient level of health literacy (Ayaz-Alkaya *et al.*, 2021). Haemoglobin levels were observed in our study which shows 60% of women were suffering with moderate anaemia and 16.3% of women were anaemic. It shows nutritional deficiency as main factor which interlinks with low economic status and it resulted in poor women health. Multimorbidity conditions was observed in our study shows that majority of multi morbidity conditions was observed 15% in 51-65 age group women and 9.3% in 41-50 age group women which was highlighted in longitudinal ageing study conducted on women in Punjab and Chandigarh of India which shows that middle aged women are more prone to multi morbidity conditions due to factors like obesity and quality of life (Puri *et al.*, 2022).

CONCLUSION

This study highlights the health challenges faced by women where different factors like socio- economic status, life style choices and environmental factors significantly influences health outcomes. Issues such as anaemia, nutritional deficiencies and chronic diseases are prevalent with trends strongly tied to age, literacy, locality and socio-economic status. Clinical Pharmacists play a crucial role in optimizing disease conditions by selecting proper medication and collaborating with health care teams in improving women health issues holistically can lead to enhanced quality of life and improved health systems.

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CONFLICT OF INTERESTS

The authors declare no conflict of interest

ETHICS APPROVAL

Not applicable

FUNDING

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AI TOOL DECLARATION

The authors declare that no AI and related tools are used to write the scientific content of this manuscript.

DATA AVAILABILITY

Data will be available on request

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