

**ASSESSMENT OF HEALTH LITERACY LEVELS AMONG ELDERLY PATIENTS
AND ITS IMPACT ON HEALTHCARE UTILIZATION AT SILVERGENIE PVT
LTD, GURGAON**

Dissertation Submitted to



The IIHMR University, Jaipur

for the partial fulfilment for the award of the degree of
Master of Business Administration (MBA)
in
Hospital and Health Management

By

Aakanksha Priya

Under the Supervision and Guidance of

Mr. Ashish Bandhu

2024

Completion Certification

CERTIFICATE

This is to certify that Aakanksha Priya in partial fulfilment of the requirements for the award of the degree of MBA (Hospital and Health Management) from the IIHMR University, Jaipur has successfully completed her internship at SilverGenie Pvt. Ltd. during 15th April - June 30th, 2024.

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DECLARATION BY STUDENT

I hereby declare that this dissertation titled “Assessment of Health Literacy Levels Among Elderly Patients and its Impact on Healthcare Utilization” is the bonafide record of my original research work. I declare that it has not been submitted to any other university or institution for the award of any degree or diploma. Information derived from the published or unpublished work of others has been duly acknowledged in the text.

Aakanksha.

Aakanksha Priya

Date – 6th July 2024

CERTIFICATE

This is to certify that dissertation titled “Assessment of Health Literacy Levels among Elderly Patients and its Impact on Healthcare Utilization” is a record of the research work undertaken by Aakanksha Priya in partial fulfilment of the requirements for the award of the degree of MBA (Hospital and Health Management) from the IIHMR University, Jaipur under my guidance and supervision and her approach to the research study has been sincere, scientific, and analytical.


Ashish Bandhu

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Dr. Sanjay Gupta

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Date: 06/07/2024

Abstract

Introduction

The state of multidimensional well-being relating to physical, psychological, and social directions is health. Health literacy can be defined as the possession of basic health information and services to make the right health decisions. The present research attempts to analyse the level of health literacy among elderly people in Bihar, Delhi NCR, and Kolkata and its influence on the use of health care services. The importance of health literacy is premised on multiple levels that have practical effects on health outcomes and health service use and, therefore, its manifestation among the elderly.

Methodology

A descriptive and cross-sectional analysis was adopted to check health literacy levels and their impact on health care utilization for the elderly participants. Data was collected from 60 participants, using a semi-structured questionnaire administered electronically on google form. The questionnaire contained both close-ended and open-ended questions, after which the data was combined to get quantitative and qualitative data. This study was conducted for a period of just three months, from April 1st to June 30th, 2024. Close-ended data was analysed using descriptive and inferential statistics. In contrast, data representing open-ended questions and analysed utilizing thematic analysis represented qualitative data. The duration of study was from 15th April 2024 to 30th June 2024.

Results

The average age of the respondents calculated was 70 years. 36.7% were females, while 63.3% were males. The majority of participants had graduation or a higher level of education. The health literacy levels were constituted as high 35%, moderate 35%, and low 30%. The results outline that with increasing health literacy levels, there was better management and chronic condition, and more frequent usage of technology towards availing health care services because individual with the higher level of health literacy apt to comprehend health information and also plan health service effectively. Elderly patients with high health literacy could manage health conditions and navigate the health care system, whereas low health literacy led to problems with understanding medical instructions and management of health.

Conclusion

This study has revealed major differences in healthcare utilization trends, depending upon health literacy levels. Improved health literacy in elderly patients leads to better understanding of managing health conditions and navigating the health care system well. These results show clearly the significance for specific interventions concerning many domains through health literacy programs, the training of healthcare personnel, and technology used as support for elderly patients.

Acknowledgement

The internship and dissertation opportunity I had with SilverGenie Pvt Ltd was an excellent opportunity for learning and professional development. In the first place, I thank my mentor, Ashish Bandhu, for his support throughout the project. I'll take this opportunity as a big milestone in my professional and career development, and I'll use the skills and knowledge I have gained in the best possible way. I would like to express my sincere gratitude towards Kuhu Adhikary Operations Head (SilverGenie Pvt Ltd) who gave me an opportunity to work on this project and for the guidance at every step that has been appreciated for my understanding and learning. I thank DR P. R. Sodani (President- IIHMR University), DR Sanjay Gupta (Dean- IIHMR University), and the whole IIHMR team for their continuous support. Last, but not least, I would like to thank my family and friends who were a constant source of motivational support and kept me persistent throughout my journey at IIHMR.

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Chapter 1: Introduction

Health is a state of overall well-being that includes physical, psychological and social facets, rather than just not being sick or infirm (1). Human beings can further polish and discover their health when they live healthy and when need be, make informed decisions through information that is accurate and clearly given. According to McCormack (personal communication, 2010), health literacy is "The degree to which the individuals can obtain, process, and understand basic health information and services needed to make appropriate decisions" (2).

McCormack defined health literacy as the degree to which a person has the capacity to acquire, analyse, and understand basic health information and services needed to make appropriate decisions about the health (personal communication, 2010). In other words, health literacy is said to be the capacity to access, read, and use health information to make informed decisions regarding the condition of your wellness. It is stated in medical reports and studies that health literacy is increasingly recognized as a preliminary factor influencing health outcomes and patterns of health care utilization (2).

Health literacy has been linked with the health status among older adults and has been considered an imperative aspect of active aging. Unique health problems in people advanced in age and complicated care needs have made the issue of health literacy of prime importance (3).

In India, to be precise, close to 90% of the population falls short of the required health literacy skills (4). This is so because, while in India, there are major challenges in the forms of rampant illiteracy and abject poverty, both of which appear to have cascading adverse effects on health literacy levels, visits to hospitals become always a part of life due to inappropriate lifestyle practices, and with regard to health literacy, aged persons are at higher risk. Therefore, no one with weak health literacy will avoid lengthier stays in hospitals, higher health care costs, lower utilization of health services, and worse health care adherence—all of which impose an impact on the physical health of older individuals (5).

Older clients living in nursing care facilities experience challenges associated with living a more enclosed existence; restrictions on access to emerging information in the outside world, and with more prevalence of chronic conditions, usually being inadequately

prepared in terms of health knowledge and information. Health literacy enhancement for such people is important for inducing success in positive and healthy aging (3).

Health literacy is by far the strongest predictor of older persons' health status and their functioning in general. It enables them to self-manage their conditions very well and therefore remain in good health and quality of life. In a more socioeconomic way, improved health literacy also lessens the burden on the National Health Service in terms of demand and cost (2). Against this background, the current study assessed the health literacy of the older patients and its relationship with the use of health care.

Purpose of Study

This study is mainly aimed at determining any relationship between health literacy levels in older patients and their health service utilization. This study will assess the level of health literacy skills among elderly people, majorly determining how these skills influence healthcare-seeking behaviours.

Context and Importance:

The aging population is a global issue and puts tremendous pressure on health care systems. Elderly patients are likely to frequently cope with comorbid chronic conditions along with navigating a complex health care matrix of health terminology, pharmaceutical regimens, and decisions about treatment. Health literacy, therefore, becomes a major determinant of optimal health care delivery in the sense that it is the ability to access, understand, appraise, and use health information.

Chapter 2: Review Of Literature

Table 2.1

Author s	Year	Study Locati on	Samp le Size	Samplin g Techniq ues	Methodol ogy	Results	Salient Features
Sørensen et al. (6)	2012	Various EU countries	8,000	Multistage random sampling	Surveys and interviews across multiple countries	Identified key socioeconomic factors affecting health literacy	Comprehensive definition of health literacy; identified key socioeconomic factors.
Lee et al. (7)	2010	South Korea	1,200	Stratified random sampling	National health survey	Higher literacy levels improved chronic disease management	Effect of health literacy on chronic disease management
Von Wagner et al. (8)	2009	UK	3,000	Random digit dialling	Telephone surveys	Higher health literacy associated with increased use of preventive services	Effect of health literacy on preventive health services utilization.
Molster et al. (9)	2009	Australia	1,200	Random sampling	Public surveys	Identified gaps in	Public understandi

						public understanding of genetic testing; emphasized the need for better public education	ng of genetic testing;
Kickbusch et al. (10)	2005	Switzerland	2,500	Stratified random sampling	National survey	Higher education and social status correlated with better health literacy	Relationship between health literacy, education, and social status.
Condit et al. (7)	2004	USA	1,246	Random digit dialing	Telephone interviews	High prevalence of genetic determinism in public beliefs	Explored public attitudes toward genetic research and genetic determinism
Lanie et al. (8)	2004	USA	1,200	Stratified sampling	National survey	Genetic knowledge influenced health behaviours and attitudes	Examined the impact of genetic knowledge on health behaviours and attitudes

Chapter 3: Methodology

Aim: To know the level of health literacy in an elderly patient population and to describe patterns of health care utilization.

Key Research Questions

1. What is the health literacy levels among elderly patients in Bihar, Delhi NCR, and Kolkata?
2. How does health literacy affect healthcare utilization among these elderly patients?

Objectives:

- To know healthcare utilization patterns among different elderly groups.
- To know health literacy levels among different subgroups of elderly patients.

Research Design

This study is descriptive and cross-sectional design to evaluate health literacy levels and their impact on healthcare utilization among elderly patients.

Study Setting

The study is conducted among elderly individuals (55+) living in Bihar, Delhi NCR, and Kolkata.

Study Population

The focus is on elderly patients to assess their health literacy levels and understand how these levels impact their use of healthcare services.

Research Procedures/Approaches

- **Quantitative Assessment:** Structured questionnaires were employed to collect quantitative data on health literacy levels and healthcare usage.

Sample Size

The study involved a sample size of 60 participants, determined based on the practicalities of data collection and the need for a diverse sample representing the elderly population in the study areas.

Sampling Techniques

Google form was sent to the people living in Bihar, Delhi NCR and Kolkata and those who were ready to participate, interviewed for the study.

Study Instruments

Data was collected using a structured questionnaire distributed via Google Forms. The questionnaire comprised both closed-ended and open-ended questions to gather comprehensive data.

Operational Definitions

- **Health Literacy:** Defined as the capability to obtain, comprehend, and make informed choices about one's health based on essential health information and services.
- **Healthcare Utilization:** Refers to the frequency and types of healthcare services used by the study participants.

Methods of Data Collection

Primary data was collected using a Google Forms survey, which was distributed to participants through WhatsApp, Email, and phone calls. A total of 60 elderly participants completed the survey during the three-month study period from 15th April to 30th June 2024.

Statistical Methods

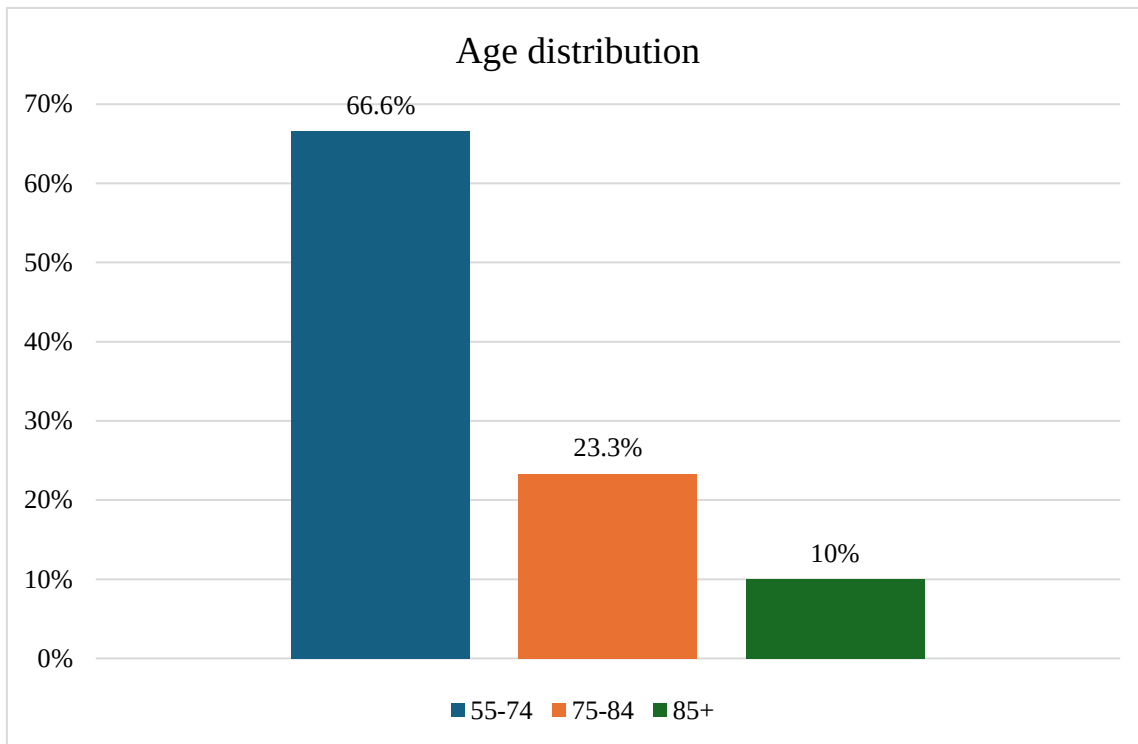
Quantitative data was analysed using descriptive statistics to summarize the health literacy levels and healthcare utilization patterns. SPSS was employed to explore the correlation between health literacy and the use of healthcare services.

Ethical Considerations

- **Consent:** Participants' approval was taken before taking the response and those who were ready to give the data were interviewed.
- **Confidentiality:** Participants' responses were kept anonymous, and strict measures were implemented to ensure that their identities and responses remained confidential.
- **Data Security:** All collected data was securely stored and accessible only to the research team, ensuring that participant information remained protected throughout the study.

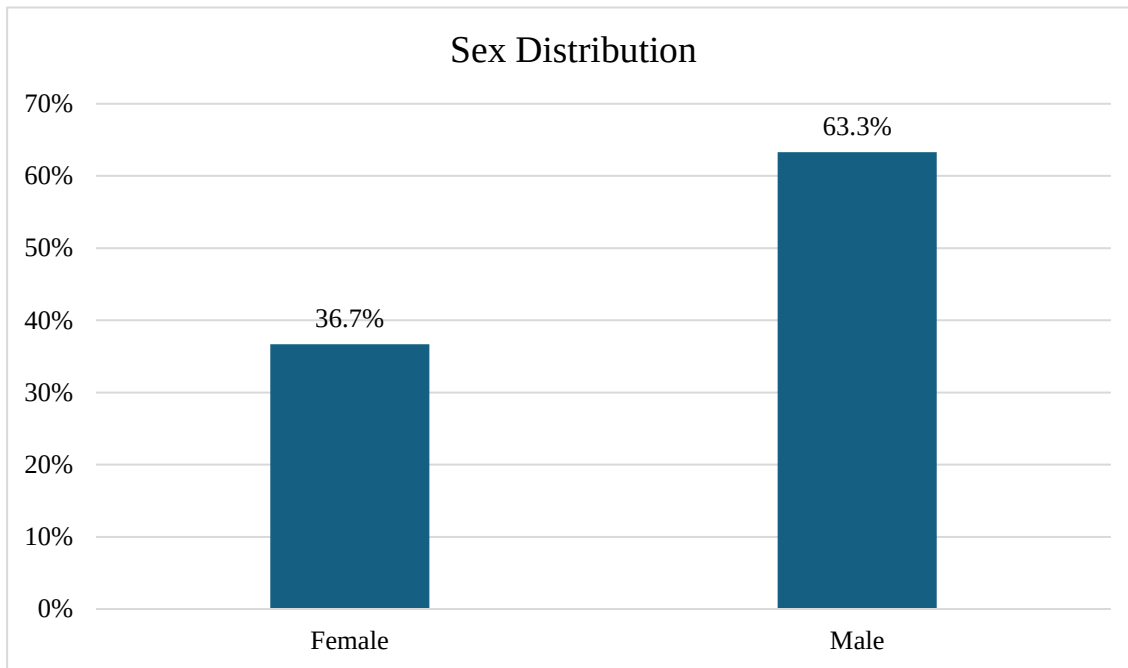
Chapter 4: Results

Figure: 4.1. Age Distribution of Respondents



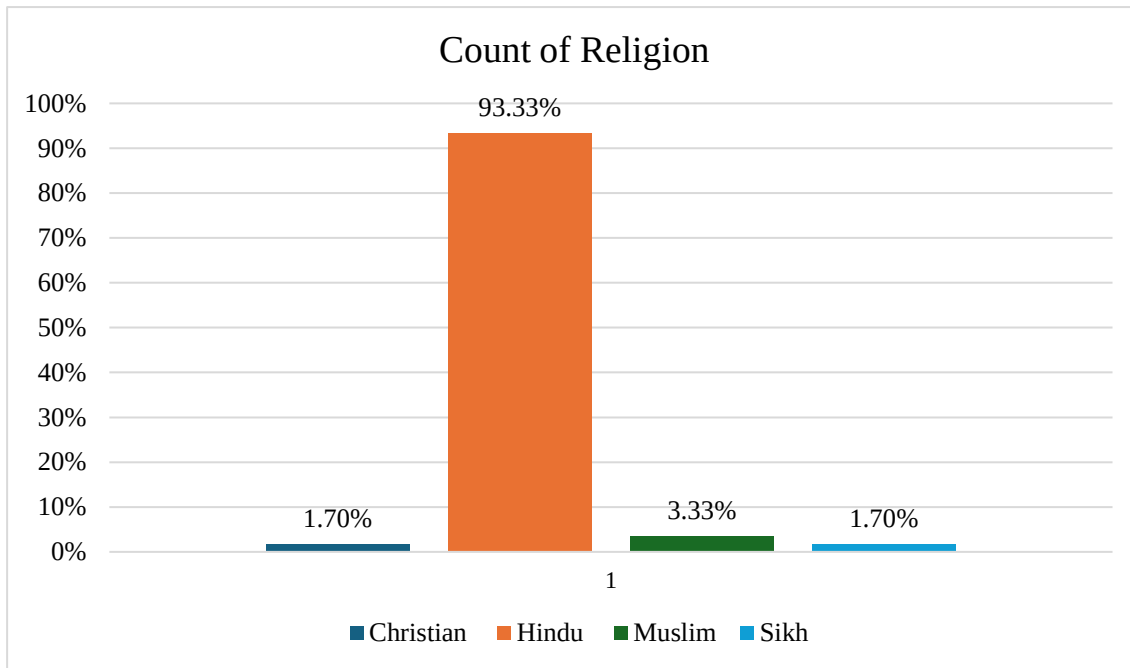
The age distribution among the study participants reveals that the largest group, comprising 40%, falls within the 55 to 74 years age range. Those aged between 75 and 84 years represent 14% of the participants, while the remaining 6% are 85 years or older. This indicates a higher proportion of younger elderly individuals in the study sample.

Figure: 4.2. Sex of the Study Population



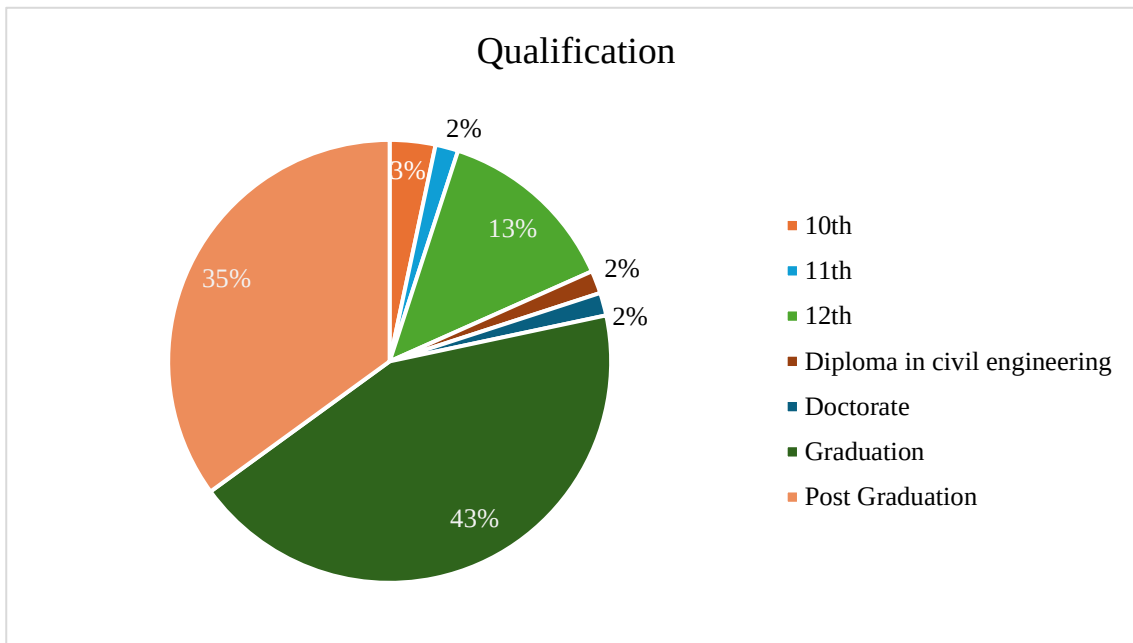
The sex distribution among the study participants shows that 36.7% are female, whereas 63.3% are male. This indicates a higher number of male participants compared to female participants in the study.

Figure: 4.3. Religion of the Study Population



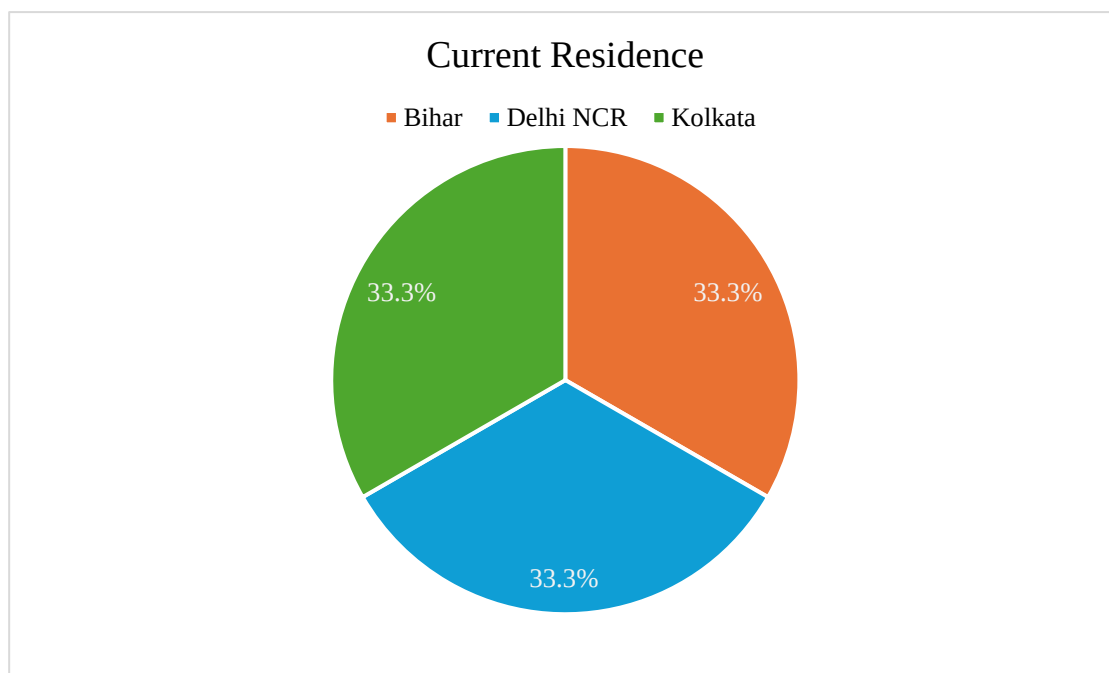
The participant pool represents a broad mix of religious affiliations, with Hindus accounting for 93.3%, followed by Muslims (3.3%), Christians (1.7%), and Sikhs (1.7%). This emphasizes the religious diversity of the study's sample.

Figure: 4.4. Academic Qualification of Respondents



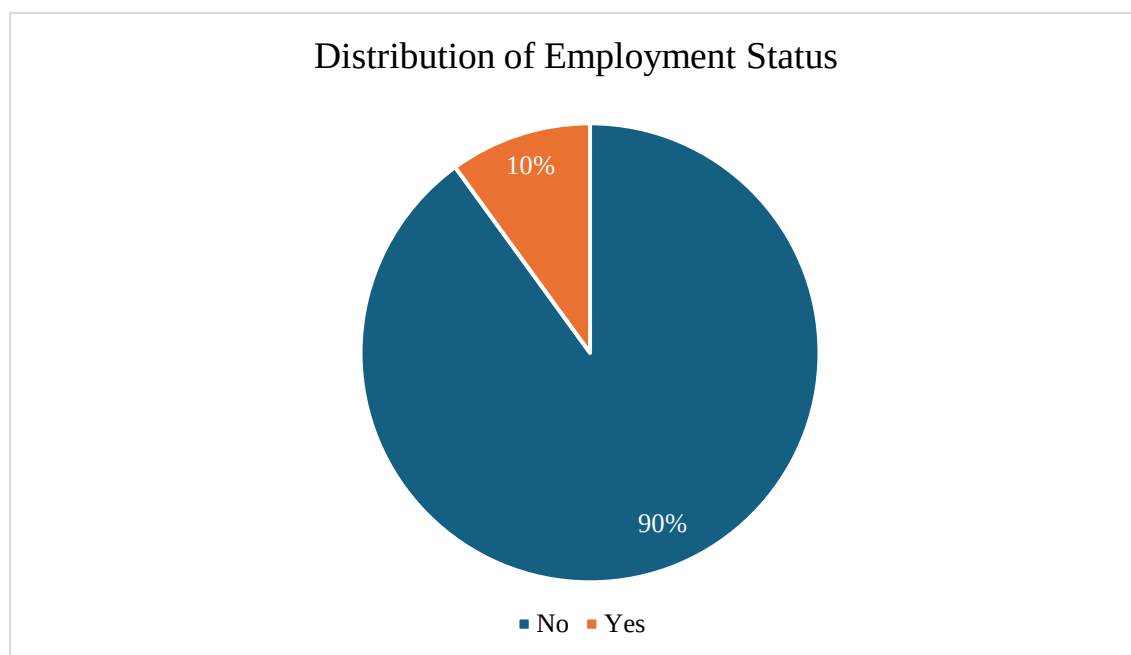
The surveyed population has a wide range of educational attainment levels: 3% completed 10th grade, 2% completed 11th grade, 13% completed 12th grade, 2% hold a diploma in civil engineering, 2% hold a doctorate, 43% have completed undergraduate degrees, and 35% have postgraduate qualifications.

Figure: 4.5. Current Residence of Respondents



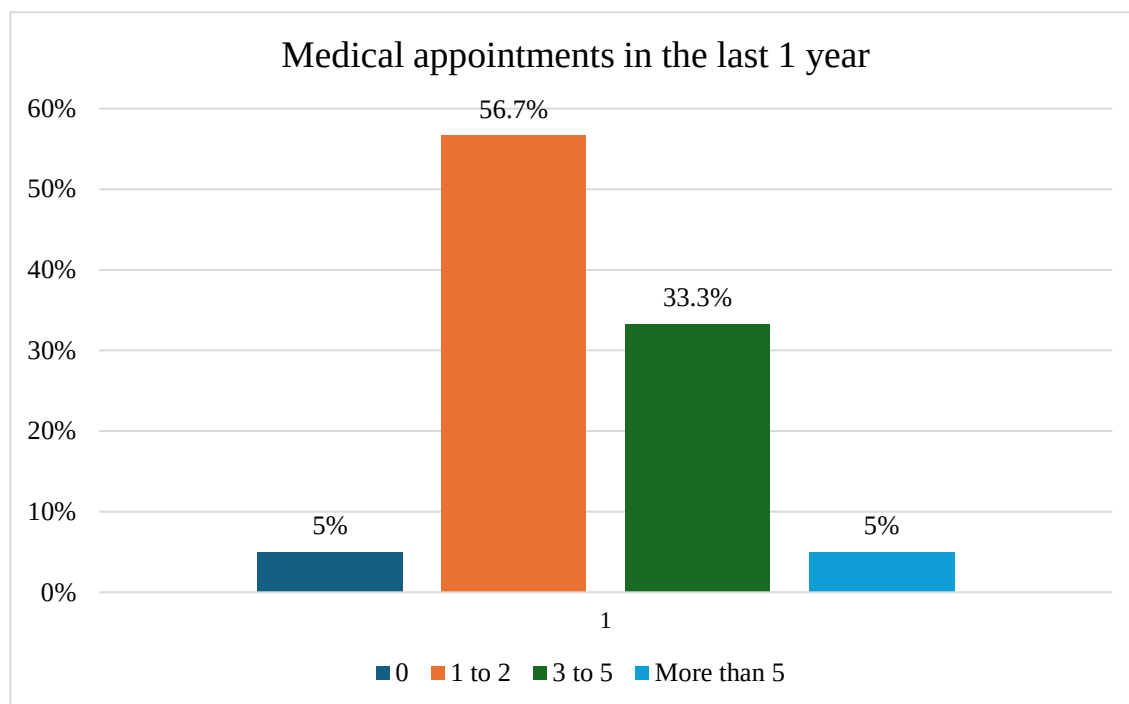
One-third (33.3%) of the asked population comes from Bihar, another third (33.3%) from Delhi NCR, and the final third (33.3%) from Kolkata.

Figure: 4.6. Employment Status of Respondents



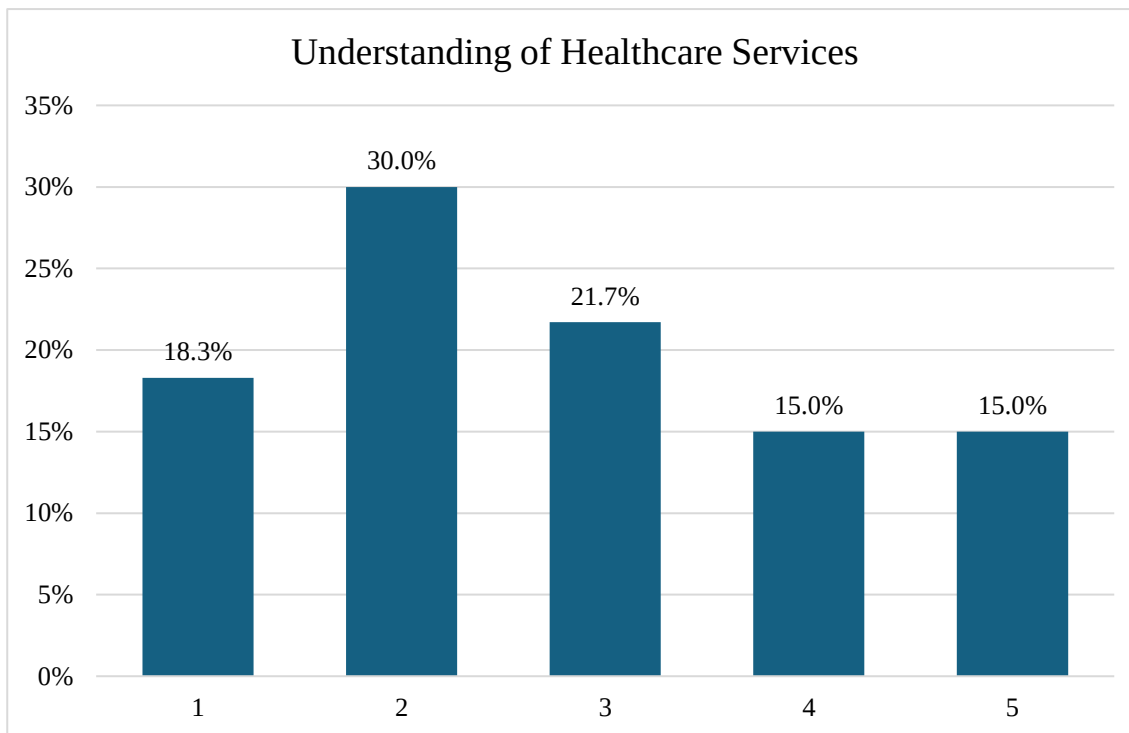
The majority of the surveyed population, 90%, is currently unemployed, with the remaining 10% employed.

Figure: 4.7. Medical Appointments in the last 1 year



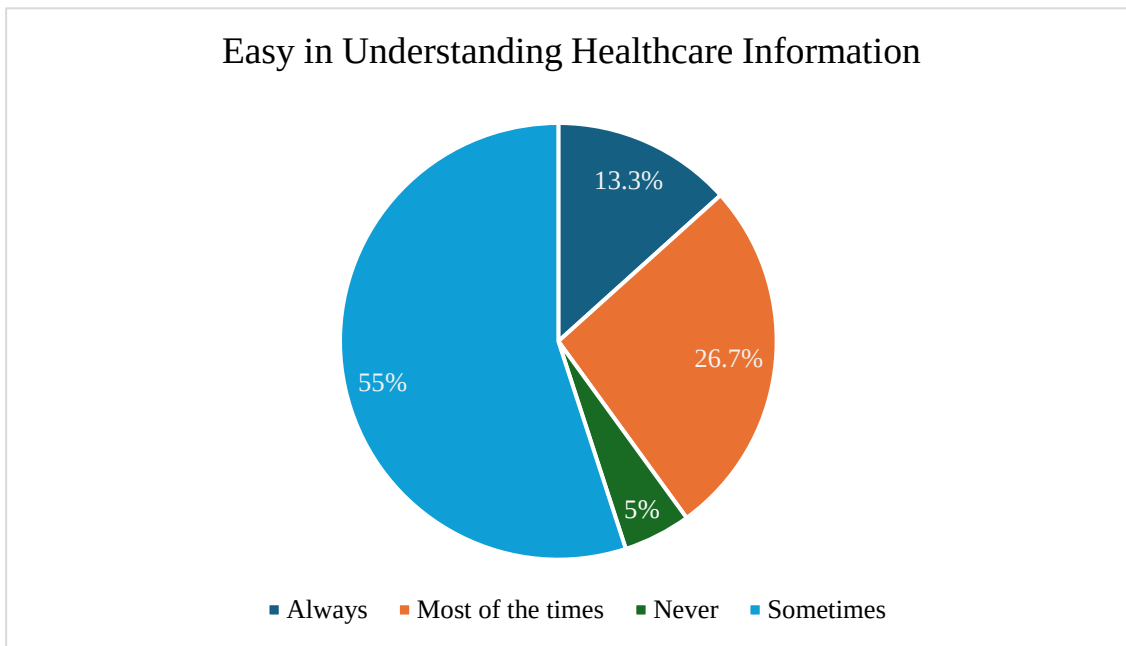
In the previous year, the number of visits to healthcare providers varied among the studied population: 5% reported no visits, 56.7% visited 1 to 2 times, 33.3% visited 3 to 5 times, and 5% visited more than 5.

Figure: 4.8. Understanding of Healthcare Services by Respondents



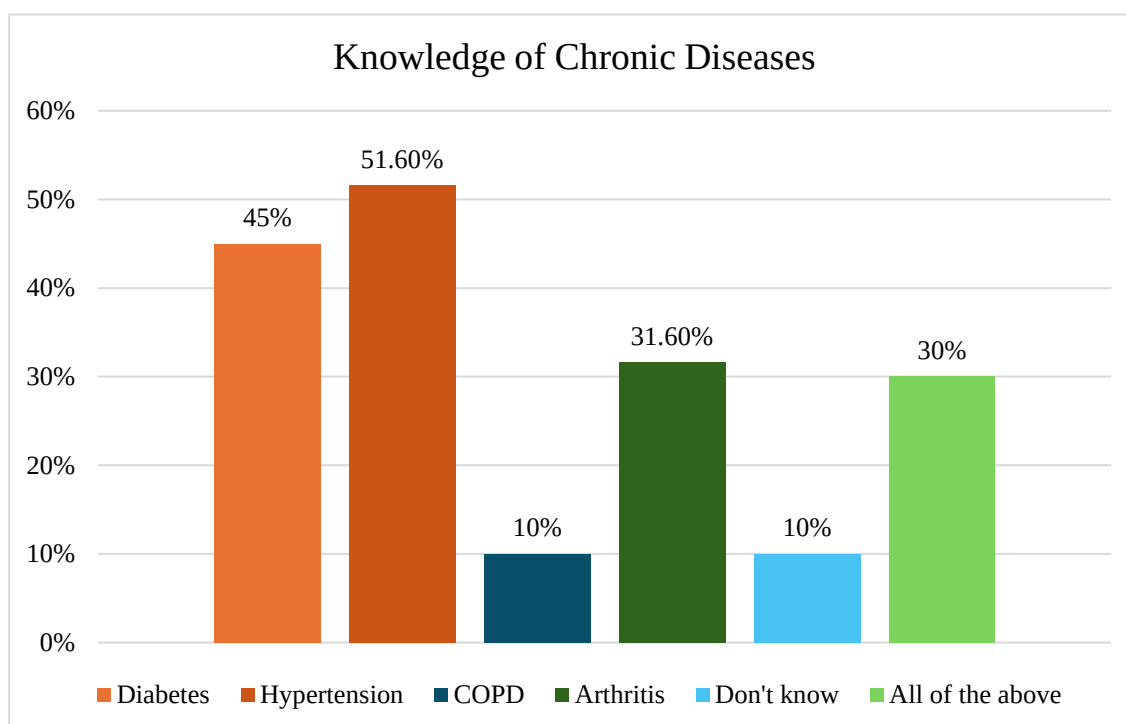
The results of the survey demonstrated various levels of understanding about healthcare service consumption, such as appointment scheduling, form completion, and insurance comprehension. The responses ranged from 1 to 5, with a total of 18.3% ranked their understanding as 1, 30% as 2, 21.7% as 3, 15% as 4, and the remaining 15% as 5.

Figure: 4.9. Easy in Understanding Healthcare Information by Respondents



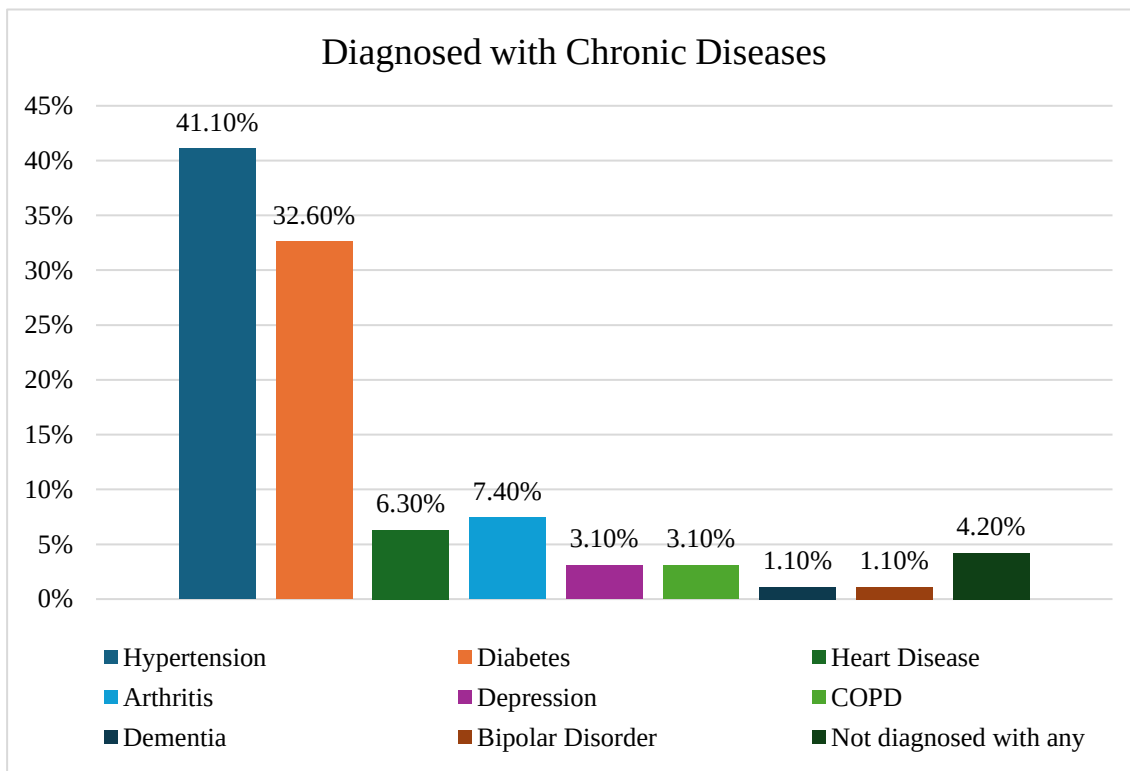
When asked the respondents about their experiences with comprehending health information from healthcare professionals. The results revealed a wide variety of responses: 13.3% regularly find it easy, 26.7% find it easy most of the time, 55% find it easy occasionally, and 5% never find it easy.

Figure: 4.10. Respondents' Knowledge of Chronic Diseases



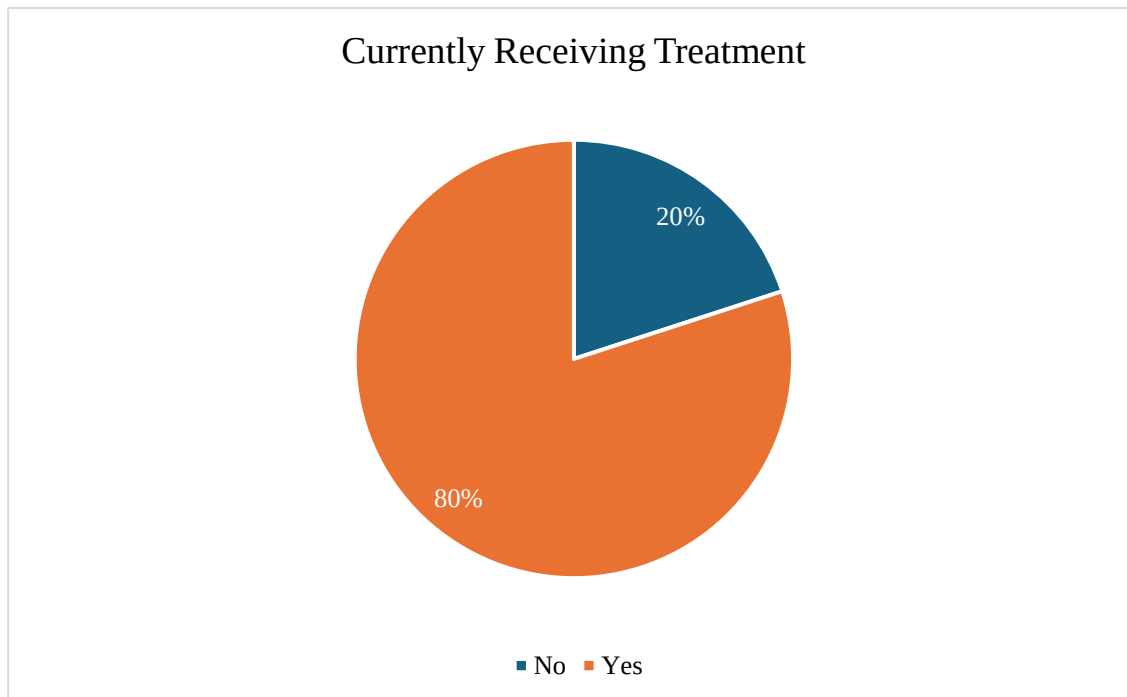
According to respondents' knowledge, the three most frequent chronic health disorders among older individuals are diabetes (45%), hypertension (51.6%), and arthritis (31.6%). Furthermore, 10% were aware of COPD as a chronic ailment, 10% were unsure, and 30% were aware of all the described conditions.

Figure: 4.11. Respondents Diagnosed with Chronic Diseases



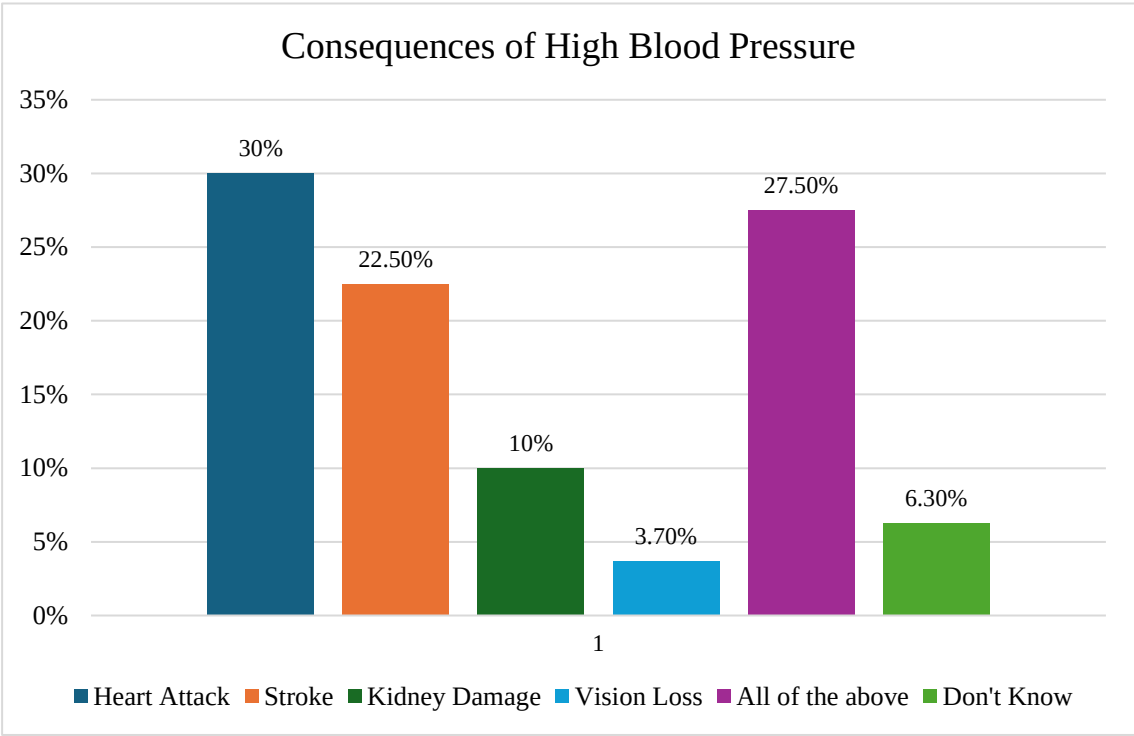
The studied population had a variety of health conditions, including 41.1% hypertension, 32.6% diabetes, 6.3% heart disease, 7.4% arthritis, 3.1% depression, 3.1% COPD, 1.1% dementia, and 1.1% bipolar illness. Furthermore, 4.2% reported that they had not been diagnosed with any of these illnesses.

Figure: 4.12. Respondents Currently Receiving Any Treatment



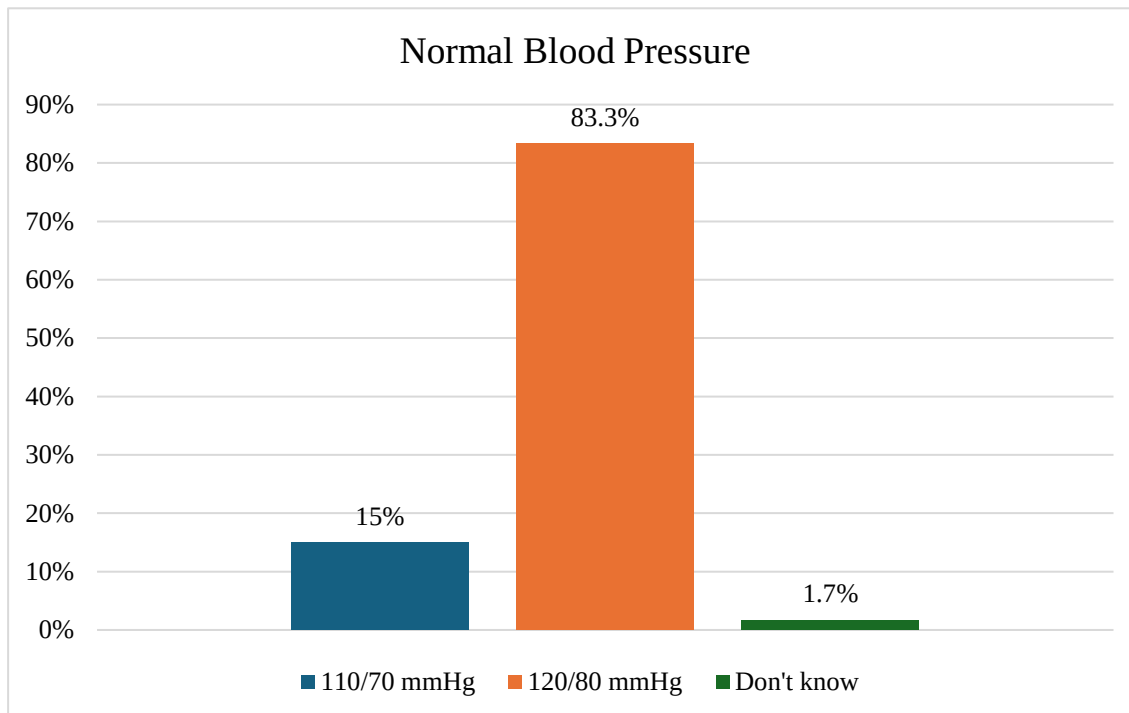
80% of those asked are actively receiving therapy or managing chronic health disorders, with the remaining 20% not currently receiving such treatment.

Figure: 4.13. Respondents' Knowledge of Consequences of High Blood Pressure



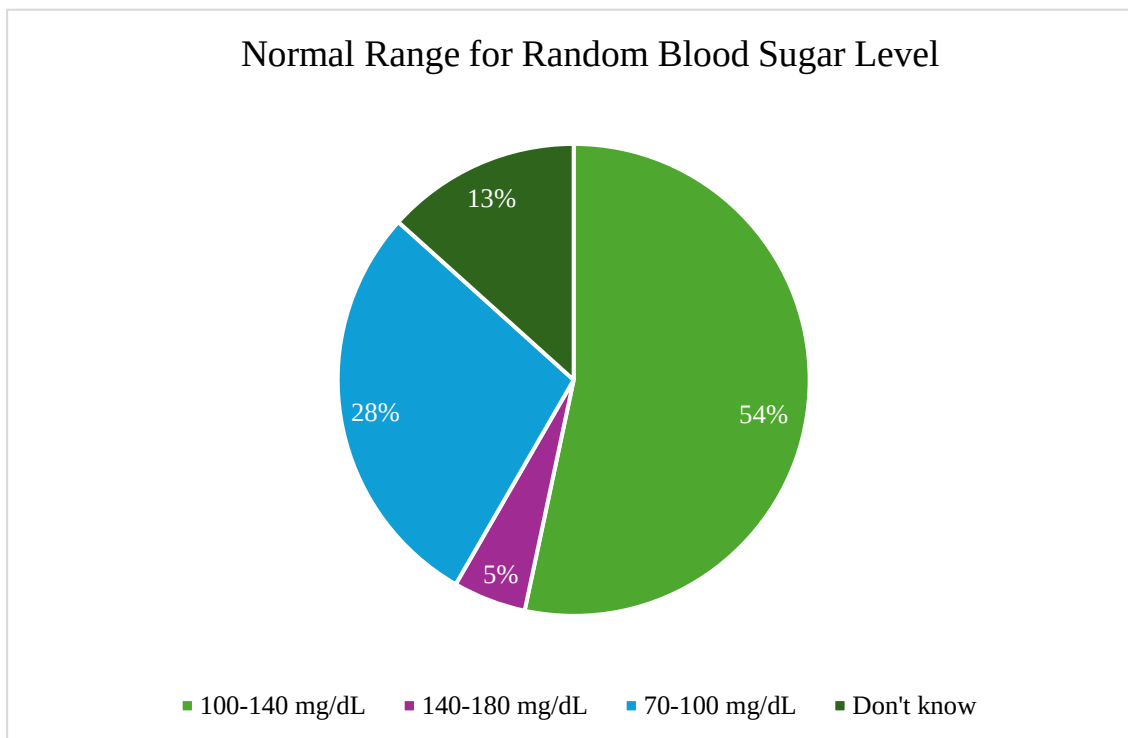
According to respondents' knowledge, the probable effects of uncontrolled high blood pressure are heart attack (30%), stroke (22.5%), kidney impairment (10%), and eyesight loss (3.7%). Furthermore, 27.5% of respondents agreed that uncontrolled high blood pressure might cause all of these illnesses, with 6.3% unsure.

Figure: 4.14. Respondents' Knowledge of Normal Blood Pressure



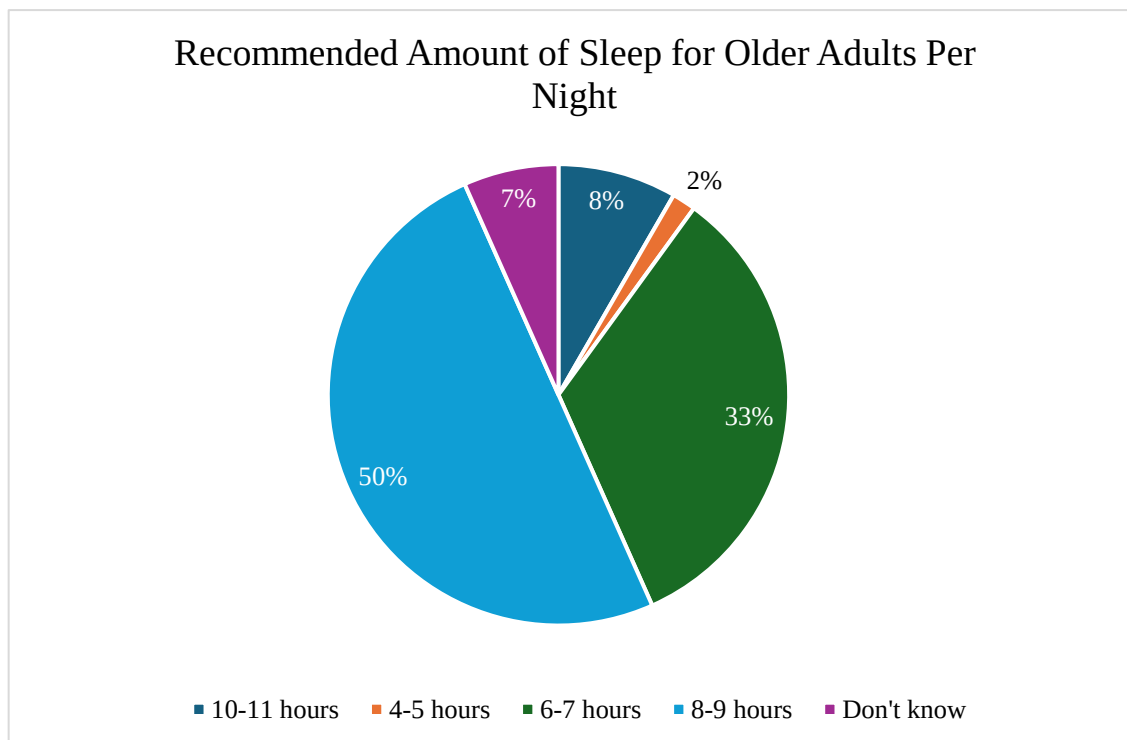
The study found that participants had different conceptions of normal blood pressure levels: 15% thought it was 110/70 mmHg, while the majority, 83.3%, correctly identified it as 120/80. A small fraction, 1.7%, were unsure about the appropriate blood pressure levels.

Figure: 4.15. Respondents' Knowledge of Normal Range for Random Blood Sugar Level



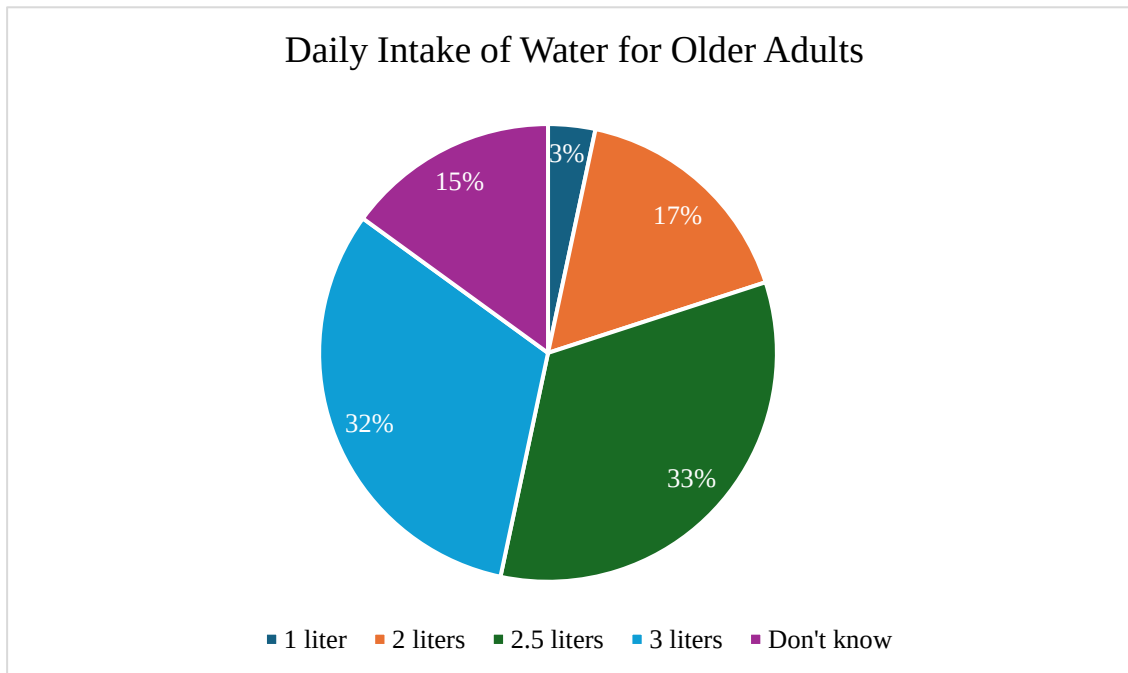
The study found that 28% of respondents accurately recognized the typical range for random blood sugar levels as 70-100 mg/dL. In contrast, 54% thought it was 100-140 mg/dL, 5% thought it was 140-180 mg/dL, and 13% were unsure which was correct.

Figure: 4.16. Respondents' Knowledge of Recommended Amount of Sleep



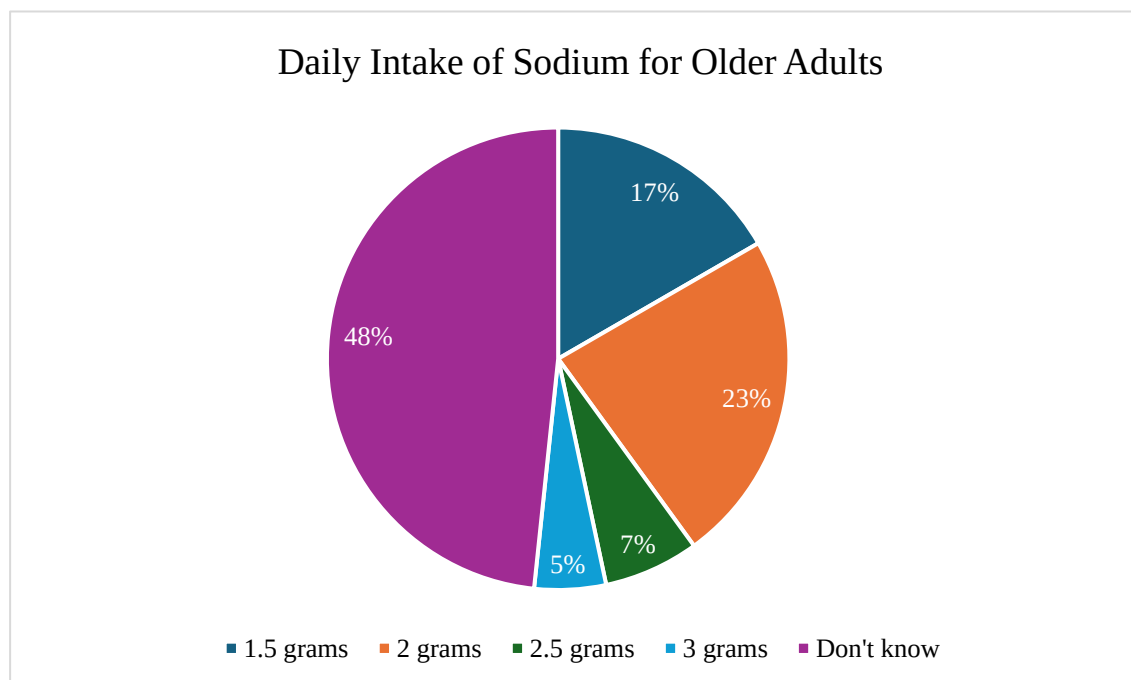
Among survey respondents, 8% thought the optimum amount of sleep for older persons was 10-11 hours, while 2% thought it was 4-5 hours. Fifty percent of participants identified the accurate advice of 8-9 hours. Furthermore, 33% advocated 6-7 hours, while 7% were confused about the optimum duration.

Figure: 4.17. Respondents' Knowledge of Recommended Daily Intake of Water



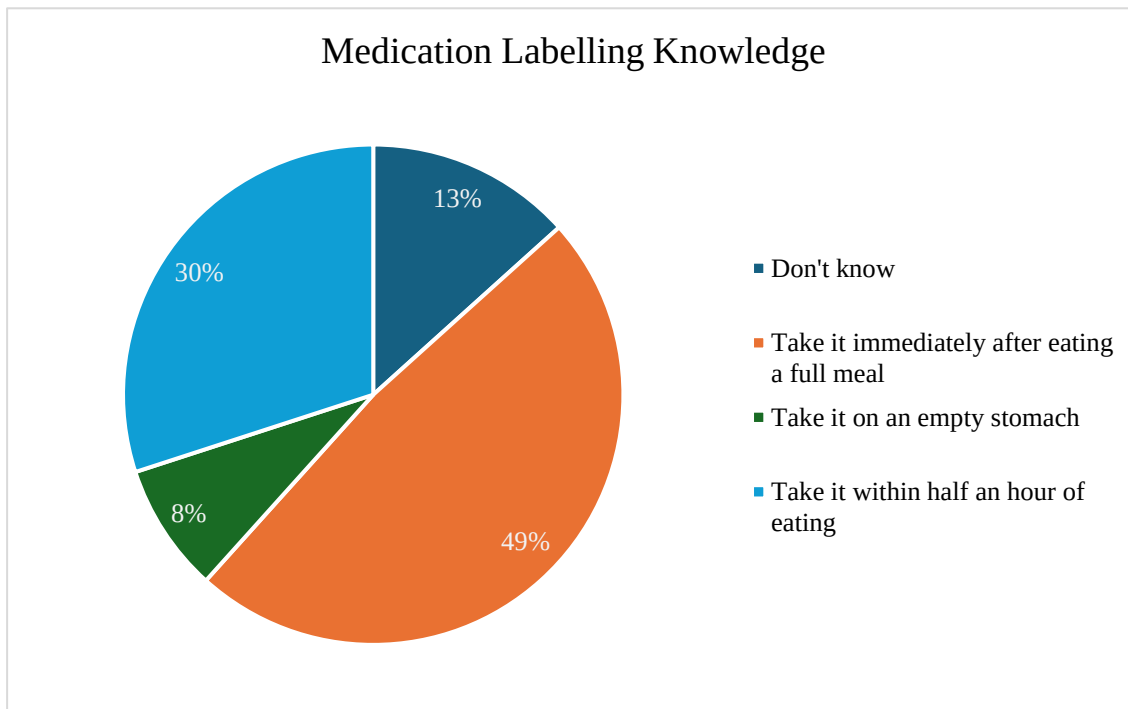
We found participants' opinions on the recommended daily water intake for older persons differed. Specifically, 3% felt it was one litre, 17% said it should be two litres, 33% said 2.5 litres, and 32% said three litres. Furthermore, 15% of respondents were unclear of the recommended daily intake, which is 3 litres.

Figure: 4.18. Respondents' Knowledge of Recommended Daily Intake of Sodium



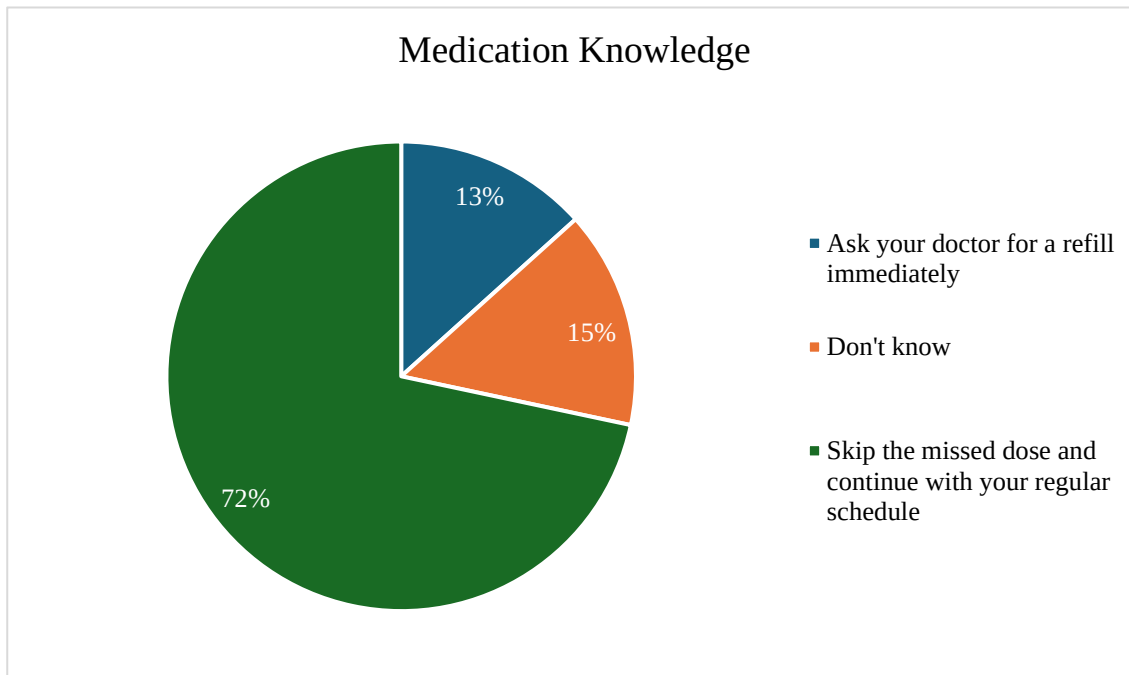
The survey revealed differing opinions about the recommended daily salt intake for older adults. Specifically, 17% accurately identified it as 1.5g, while 23% thought it should be 2g, 7% suggested 2.5g, and 5% said 3g. The majority (48%) were unsure about the recommended daily consumption of 1.5g.

Figure: 4.19. Medication Labelling Knowledge of Respondents



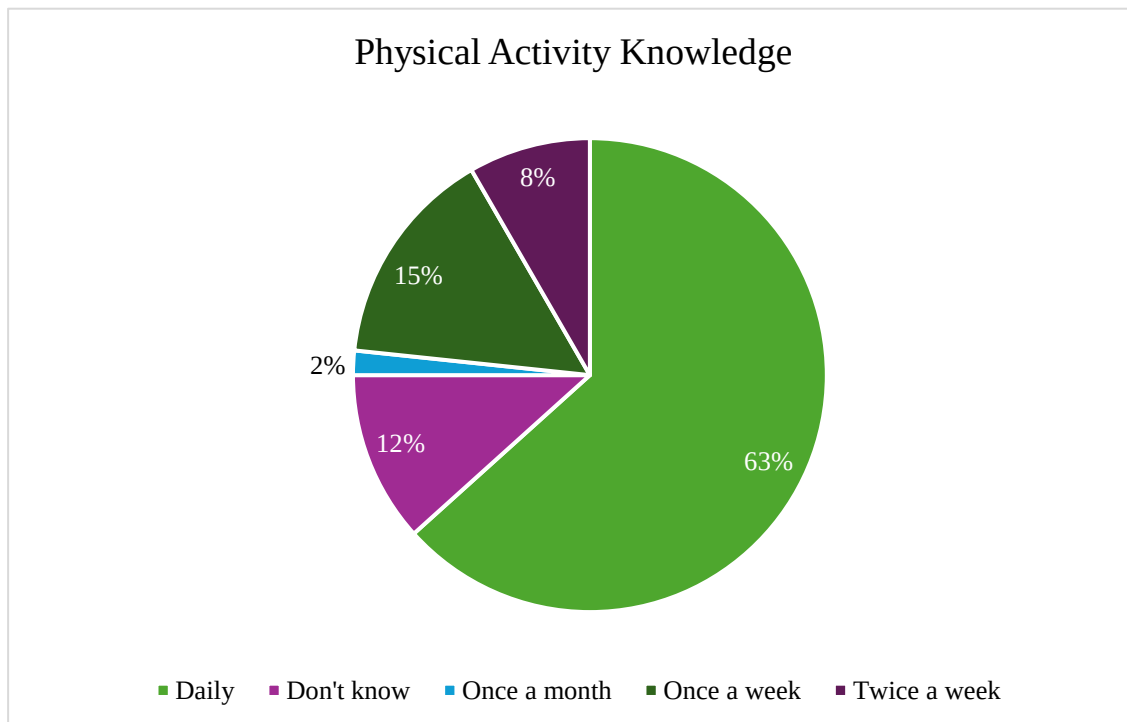
We found various interpretations of the directive to take medication 'with food.' Specifically, 49% felt it meant taking it soon after a full meal, 8% thought it should be taken on an empty stomach, and 30% thought it meant taking the drug within 30 minutes of eating. Of the responses, 30% correctly identified the meaning as taking the prescription within half an hour of eating, while 13% were unsure.

Figure: 4.20. Medication Knowledge of Respondents



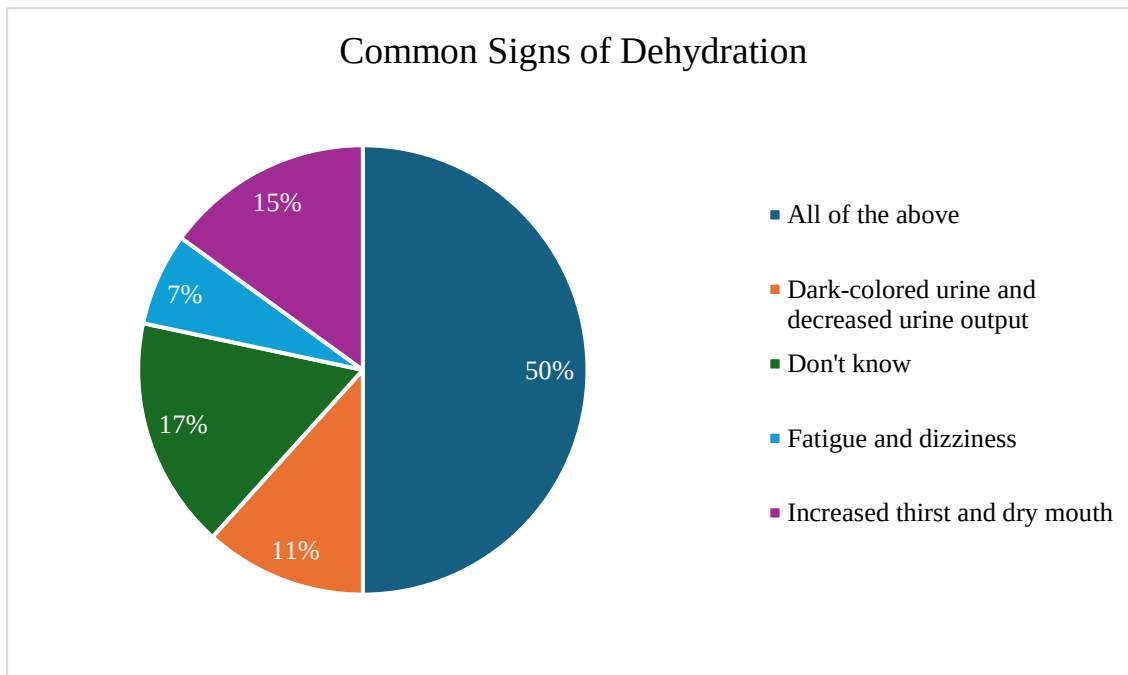
In the study, responses differed on what to do if a prescription dose is missed: 13% suggested contacting the doctor for an immediate refill, while 72% correctly identified missing the missed dose and continuing on the regular schedule. Furthermore, 15% were unsure of the right step.

Figure: 4.21. Physical Activity Knowledge of Respondents



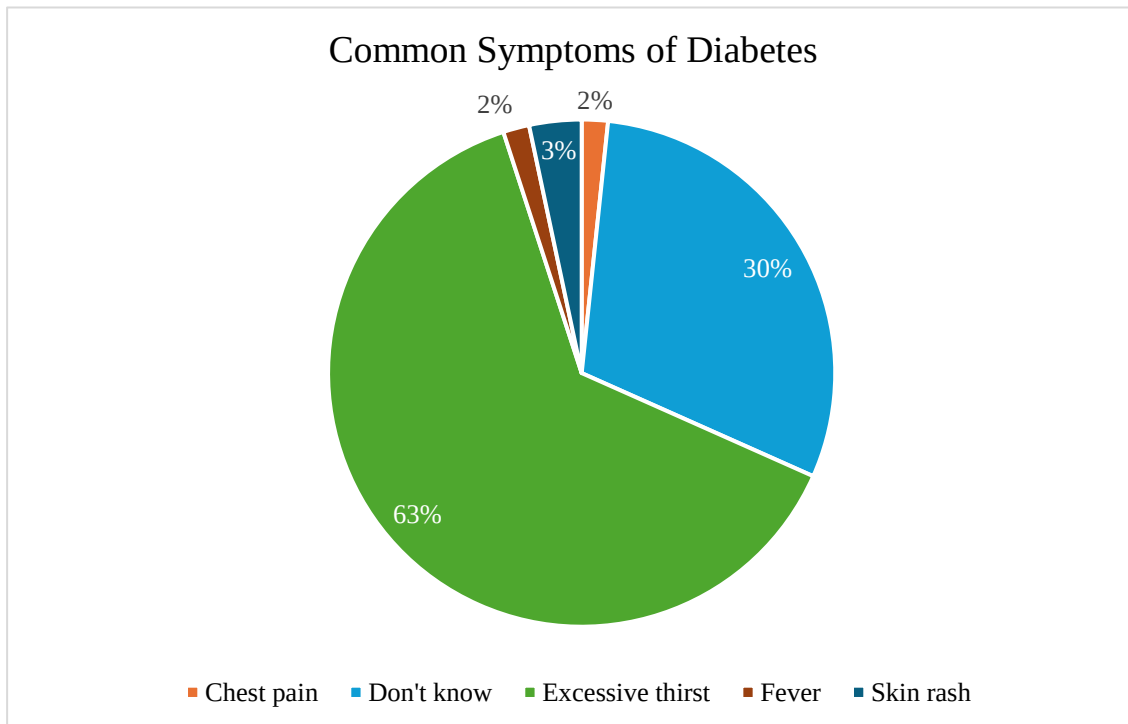
We found that perspectives on the best frequency of physical activity for older persons varied: 63% accurately advocated daily action, whereas 2% indicated once a month, 15% once a week, and 8% twice a week. Additionally, 12% were unsure about the optimal frequency.

Figure: 4.22. Respondents' Knowledge of Common Signs of Dehydration



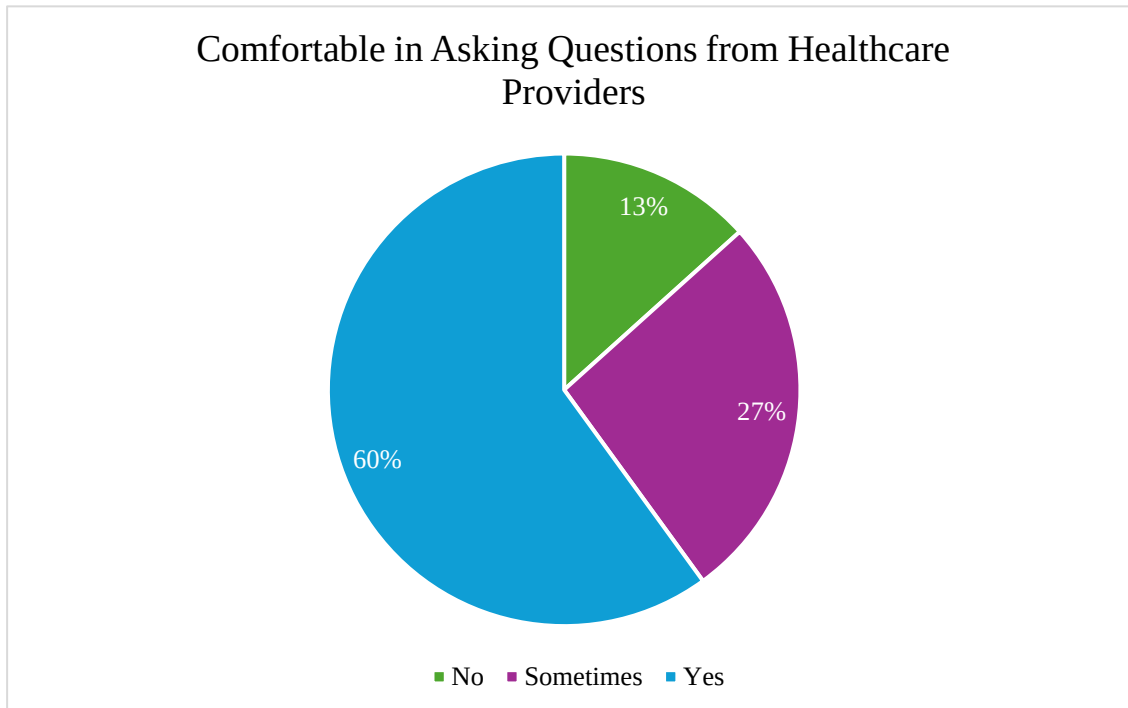
We found that the reactions to indicators of dehydration varied: 11% identified dark-coloured urine and decreased urine flow, 7% mentioned exhaustion and dizziness, and 15% reported increased thirst and urination. A majority, 50%, identified all of them as indications of dehydration, with 17% unsure.

Figure: 4.23. Respondents' Knowledge of Common Symptoms of Diabetes



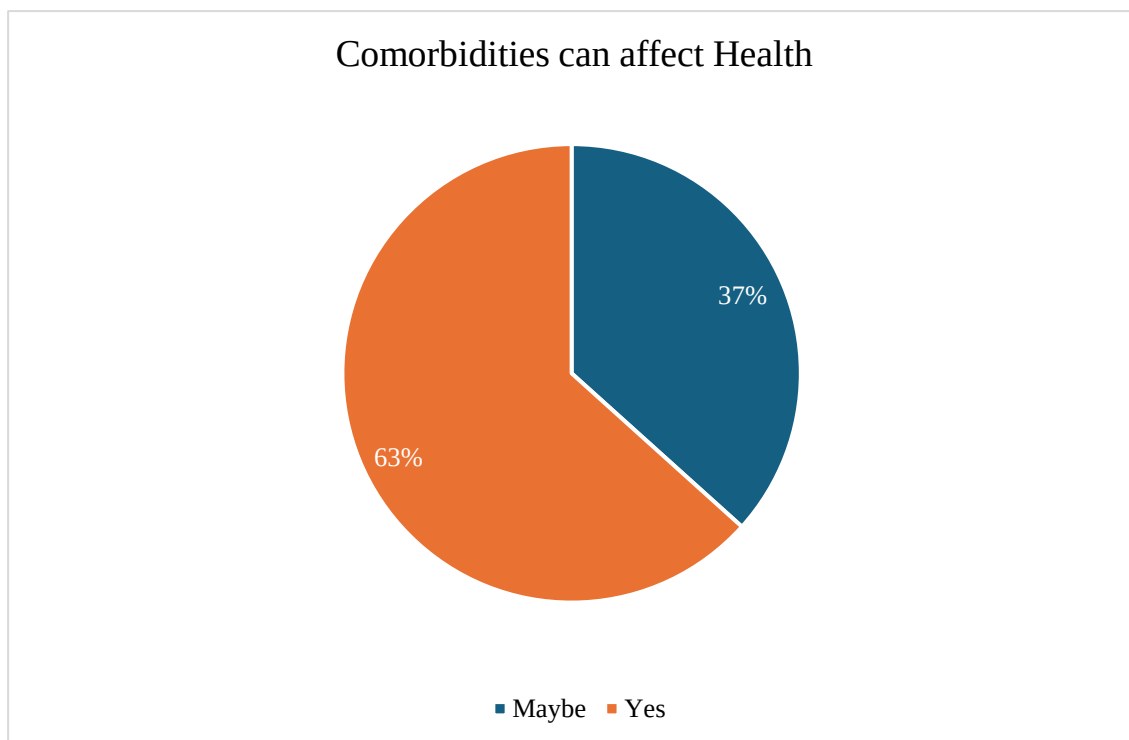
We found that the most prevalent symptom associated with diabetes is increased thirst, which was accurately identified by 63% of participants. Other responses were 2% for chest pain, 2% for fever, and 3% for skin rash. Additionally, 30% were unclear of the proper symptom.

Figure: 4.24. Respondents Comfortable in Asking Questions from Healthcare Providers



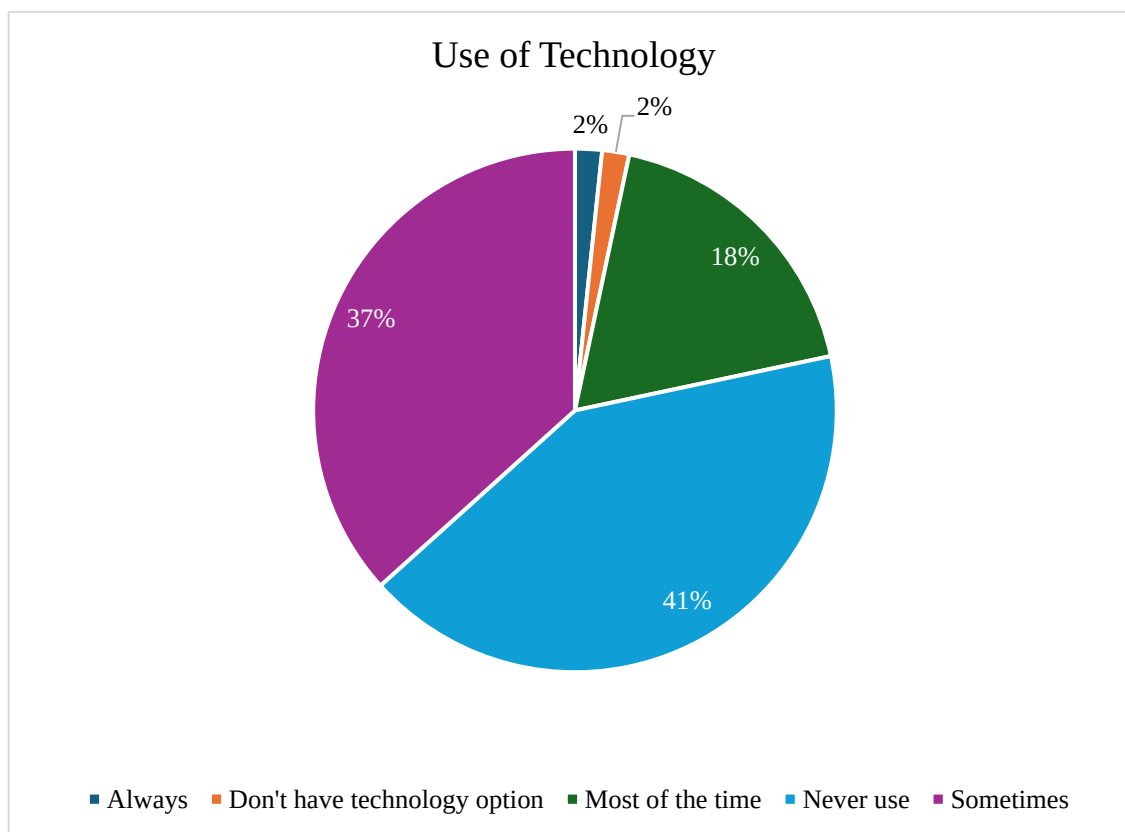
We found that 60% of respondents are comfortable asking questions or seeking clarification from healthcare practitioners. 27% reported feeling comfortable at times, while 13% reported feeling uncomfortable.

Figure: 4.25. Respondents' Knowledge of Comorbidities Relation with Health



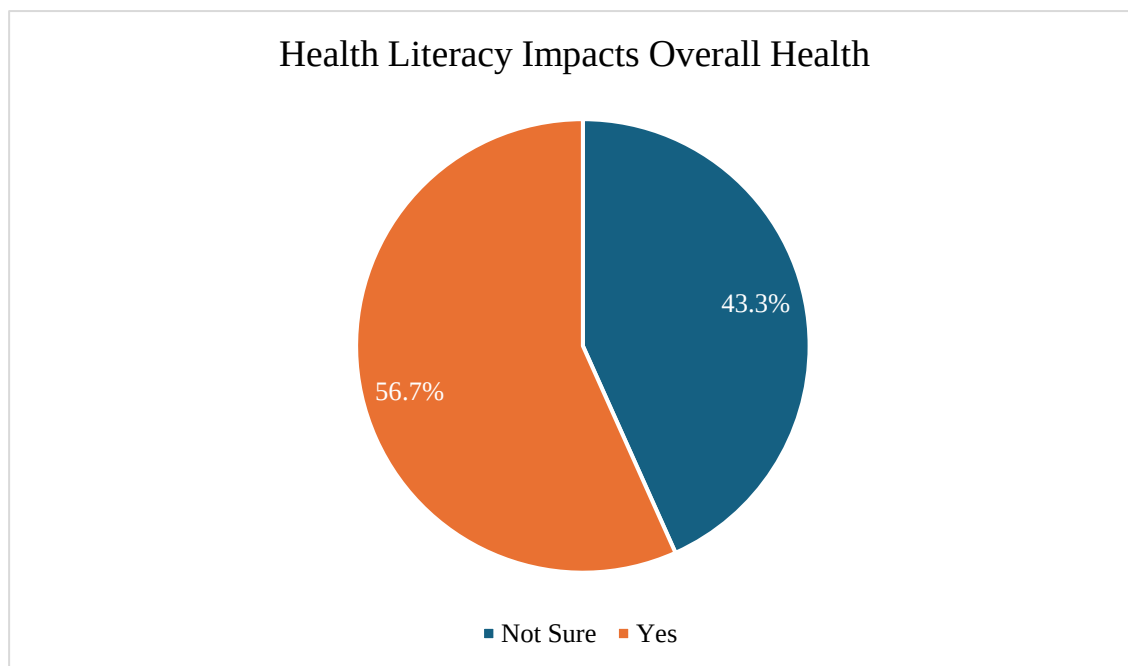
We found 37% of respondents felt that comorbidities can significantly affect their overall health. In contrast, 63% of respondents were unsure about how comorbidities can affect their health.

Figure: 4.26. Respondents Use of Technology for Healthcare Needs



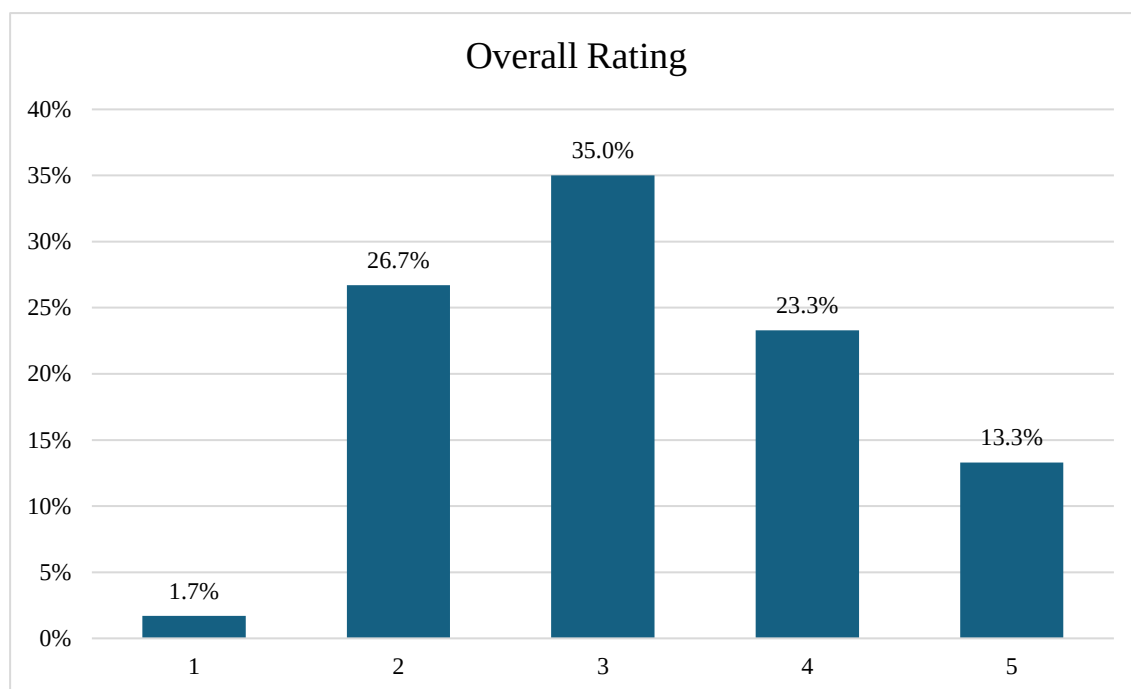
Survey responses ranged on the likelihood of utilizing technology to access health information or communicate with healthcare providers: 2% always use it, 2% don't have the option, 18% use it most of the time, 41% never use it, and 37% use it occasionally.

Figure: 4.27. Respondents' Knowledge of Health Literacy Impacts Overall Health



We found 56.7% of respondents believe their degree of health literacy influences their entire healthcare experience. In contrast, 43.3% expressed confusion regarding the impact of health literacy on their healthcare.

Figure: 4.28. Overall Health Literacy Rating by Respondents



Participants were asked to assess their overall health literacy from 1 to 5. The replies were mixed, with 1.7% rating it as 1, 26.7% as 2, 35% as 3, 23.3% as 4, and 13.3% as 5.

Chapter 5: Discussion

Demographic Information

- **Average Age:** The average age of participants was 70 years.
- **Gender Distribution:** 36.7% of participants identified as female, and 63.3% as male.
- **Educational Background:** The majority of participants had a graduation or higher, with 33.3% residing in Bihar, 33.3% residing in Delhi NCR and 33.3% in Kolkata.
- **Employment Status:** Only 10% of participants were currently employed and 90% were unemployed.

Healthcare Utilization

- **Frequency of Visits:** On average, participants visited healthcare providers 1-2 times in the past year.
- **Ease of Understanding Healthcare Services:** 30% of participants reported finding it easy to understand how to use healthcare services, such as booking appointments and understanding insurance.
- **Health Information Comprehension:** 81.7% of participants often found it easy to understand health information provided by healthcare providers.

Health Literacy and Chronic Conditions

- **Health Literacy Levels:** The study found that 35% of participants demonstrated high health literacy, 35% moderate health literacy, and 30% low health literacy.
- **Chronic Health Conditions:** 93.3% of participants had been diagnosed with at least one chronic health condition, with the most common being Hypertension and Diabetes.
- **Impact of Health Literacy:** Participants with higher health literacy levels were more likely to use technology for utilizing healthcare services and have high level of qualification.

Challenges Identified:

- **Barriers to Healthcare:** Participants with low health literacy identified challenges such as difficulty understanding medical instructions and managing medication schedules.
- **Comfort in Communication:** 40% of participants with felt uncomfortable asking questions or seeking clarification from healthcare providers.

Chapter 6: Conclusion

This study sought to assess health literacy levels among older individuals and their impact on healthcare usage. The data show significant disparities in healthcare utilization trends across health literacy groups.

Implications of Findings

- **Impact on Healthcare Delivery:** The correlation between health literacy and healthcare utilization highlights the necessity for healthcare providers to enhance health literacy among elderly patients, which can improve their ability to manage health conditions and navigate the healthcare system effectively.
- **Targeted Interventions:** Customized educational programs and effective communication strategies are crucial to meet the specific needs of elderly patients with low health literacy, potentially leading to better health outcomes and more efficient use of healthcare services.

Recommendations

1. **Health Literacy Programs:** Develop health literacy programs for senior individuals to educate key skills such as interpreting medical instructions, managing prescriptions, and navigating healthcare providers.
2. **Training:** Regularly train healthcare personnel to effectively explain health facts to senior patients.
3. **Use of Technology:** Implement user-friendly apps and online resources to deliver accessible health information and support, designed especially for elderly patients with low literacy levels.
4. **Policy Advocacy:** Support policies that integrate health literacy into public health strategies, securing funding for health literacy programs and embedding health literacy into healthcare standards.

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Appendix

Questionnaires

1. Name (नाम)
2. What is your current age? (आपकी वर्तमान उम्र क्या है?)
3. Gender (लिंग)
 - ☐ Male (पुरुष)
 - ☐ Female (महिला)
 - ☐ Other: _____
4. Religion (धर्म)
5. What is your highest level of education completed? (आपकी सबसे ज्यादा पढ़ाई कितनी है?)
 - ☐ 10th
 - ☐ 12th
 - ☐ Graduation
 - ☐ Post Graduation
 - ☐ Other: _____
6. What is your current place of residence? (आपका वर्तमान निवास स्थान कहाँ है?)
7. Are you currently employed? (क्या आप वर्तमान में काम कर रहे हैं?)
 - ☐ Yes (हाँ)
 - ☐ No (नहीं)
8. How many times did you visit a healthcare provider for medical appointments in the past 1 year? (पिछले 1 साल में आपने कितनी बार डॉक्टर को दिखाया है?)
 - ☐ 0
 - ☐ 1 to 2
 - ☐ 3 to 5
 - ☐ More than 5
9. How well do you understand how to use healthcare services like booking appointments, filling out forms, and understanding insurance? (आपको डॉक्टर की अपॉइंटमेंट बुक करना, फॉर्म भरना और बीमा समझना कितना आता है?)

- Not much knowledge (मुझे ज्यादा जानकारी नहीं है)
- 1
- 2
- 3
- 4
- 5
- Very well knowledge (बहुत अच्छी जानकारी नहीं है)

10. How often do you find it easy to understand health information provided by healthcare providers? (आपको स्वास्थ्य सूचना समझने में कितनी आसानी होती है?)

- Always (हमेशा)
- Most of the times (अक्सर)
- Sometimes (कभी-कभी)
- Never (कभी नहीं)

11. Which of the following are three common chronic health conditions among older adults? Select all that apply. (इनमें से वृद्ध व्यक्तियों में तीन आम स्वास्थ्य समस्याओं का चयन करें।)

- Hypertension (high blood pressure) (उच्च रक्तचाप)
- Diabetes (मधुमेह)
- Chronic obstructive pulmonary disease (COPD - सीओपीडी)
- Arthritis (गठिया)
- All of the above (सभी)
- Don't know (पता नहीं)

12. Have you been diagnosed with any of the following chronic health conditions? (Select all that apply) (क्या आपको निम्नलिखित स्वास्थ्य समस्याओं का डायग्नोसिस हुआ है?)

- Hypertension (high blood pressure) (उच्च रक्तचाप)
- Diabetes (मधुमेह)
- Heart disease (हृदय रोग)
- Arthritis (गठिया)
- Chronic obstructive pulmonary disease (COPD - सीओपीडी)
- Cancer (कैंसर)

- Depression (डिप्रेशन)
 - Not diagnosed with any (कोई स्वास्थ्य संबंधी समस्या नहीं है)
 - Other: _____
13. Are you currently receiving treatment or management for any chronic health conditions? (क्या आपको कोई लंबे समय से चल रही स्वास्थ्य समस्या का इलाज चल रहा है?)
- Yes (हाँ)
 - No (नहीं)
14. What are some potential consequences of uncontrolled high blood pressure? (हाई ब्लड प्रेशर के अनियंत्रित होने के कुछ नुकसान क्या हो सकते हैं?)
- Heart attack (दिल का दौरा)
 - Stroke (लकवा)
 - Kidney damage (किडनी खराब)
 - Vision loss (आंखें कमजोर होना)
 - All of the above (सभी)
 - Don't know (पता नहीं)
15. What is considered normal blood pressure? (सामान्य ब्लड प्रेशर कितना माना जाता है?)
- 90/60 mmHg
 - 100/90 mmHg
 - 110/70 mmHg
 - 120/80 mmHg
 - Don't know (पता नहीं)
16. What is considered a normal range for random blood sugar levels? (सामान्य रक्त शुगर स्तर कितना माना जाता है?)
- 70-100 mg/dL
 - 100-140 mg/dL
 - 140-180 mg/dL
 - 180-220 mg/dL
 - Don't know (पता नहीं)
17. What is the recommended amount of sleep for older adults per night? (वृद्ध व्यक्तियों के लिए रात में नींद की आवश्यकता कितने घंटों की है?)

- 4-5 hours
- 6-7 hours
- 8-9 hours
- 10-11 hours
- Don't know (पता नहीं)

18. What is the recommended daily intake of water for older adults? (वृद्ध व्यक्तियों को दिन में कितना पानी पीना चाहिए?)

- 1 liter
- 2 liters
- 2.5 liters
- 3 liters
- Don't know (पता नहीं)

19. What is the recommended daily intake of sodium for older adults? (वृद्ध व्यक्तियों के लिए रोजाना सोडियम की कितनी आवश्यकता होती है?)

- 1.5 grams
- 2 grams
- 2.5 grams
- 3 grams
- Don't know (पता नहीं)

20. The instructions on your medication label say to take it "with food." What does this likely mean? (आपके दवा के लेबल पर दिए गए निर्देश कहते हैं कि इसे "खाने के साथ" लेना है। इसका मतलब क्या हो सकता है?)

- Take it immediately after eating a full meal (पूरे भोजन के बाद तुरंत लें)
- Take it on an empty stomach (खाली पेट लें)
- Take it within half an hour of eating (खाना खाने के आधे घंटे के अंदर लें)
- It doesn't matter if you take it with food or not (खाने के साथ लेने या नहीं लेने में कोई फर्क नहीं पड़ता)
- Don't know (पता नहीं)

21. You accidentally miss a dose of your medication. What should you do? (आप अपनी दवा की एक मात्रा भूल जाते हैं। आपको क्या करना चाहिए?)

- Take two doses at once to catch up (दो गोलियाँ एक साथ लें)

- Skip the missed dose and continue with your regular schedule (छूटी हुई दवा को छोड़ दें और अपने नियमित समय पर ही दवा लें)
- Stop taking the medication altogether (दवा लेना पूरी तरह बंद करे)
- Ask your doctor for a refill immediately (अपने डॉक्टर से तुरंत दवा का रिफिल मांगें)
- Don't know (पता नहीं)

22. How often should older adults engage in physical activity for optimal health? (अच्छे स्वास्थ्य के लिए, वृद्ध व्यक्तियों को कितनी बार शारीरिक गतिविधि करनी चाहिए?)

- Once a week (हफ्ते में एक बार)
- Twice a week (हफ्ते में दो बार)
- Daily (प्रतिदिन)
- Once a month (महीने में एक बार)
- Don't know (पता नहीं)

23. What are some common signs of dehydration? (शरीर में पानी की कमी के क्या आम लक्षण होते हैं?)

- Increased thirst and dry mouth (ज्यादा प्यास लगना और मुंह सूखना)
- Fatigue and dizziness (थकान और चक्कर आना)
- Dark-colored urine and decreased urine output (गहरे रंग का पेशाब और पेशाब कम आना)
- All of the above (सभी लक्षण)
- Don't know (पता नहीं)

24. Which of the following is the most common symptom associated with diabetes? (निम्नलिखित में से कौन सा लक्षण मधुमेह से सबसे अधिक जुड़ा हुआ है?)

- Fever (बुखार)
- Excessive thirst (बार-बार प्यास लगना)
- Chest pain (सीने में दर्द)
- Skin rash (त्वचा रोग)
- Don't know (पता नहीं)

25. Do you feel comfortable while asking questions or seeking clarification from healthcare providers about your health concerns? (क्या आपको डॉक्टरों से अपने स्वास्थ्य के बारे में सवाल पूछने में या उनसे स्पष्टीकरण मांगने में आराम महसूस होता है?)
- Yes (हाँ)
 - No (नहीं)
 - Sometimes (कभी-कभी)
26. Do you think having multiple chronic health conditions (comorbidities) can affect your overall health? (क्या आपको लगता है कि कई तरह की लंबी बीमारियाँ होना आपकी पूरी सेहत को खराब कर सकता है?)
- Yes (हाँ)
 - No (नहीं)
 - Maybe (शायद)
27. How likely are you to use technology (e.g., internet, smartphone apps) to access health information or communicate with healthcare providers? (क्या अपनी सेहत के बारे में जानकारी पाने या डॉक्टरों से बातचीत करने के लिए टेक्नोलॉजी (जैसे इंटरनेट, स्मार्टफोन ऐप्स) का इस्तेमाल करते हैं?)
- Never use (कभी नहीं)
 - Sometimes (कभी-कभी)
 - Most of the time (अक्सर)
 - Always (हमेशा)
 - Don't have technology option (तकनीक का विकल्प नहीं है)
28. Do you feel that your level of health literacy impacts your overall healthcare experiences? (क्या आपको लगता है कि आपकी स्वास्थ्य संबंधी जानकारी आपके पूरे स्वास्थ्य देखभाल के अनुभवों को प्रभावित करती है?)
- Yes (हाँ)
 - No (नहीं)
 - Not Sure (पता नहीं)
29. Overall, how would you rate your health literacy skills? (आप अपनी स्वास्थ्य साक्षरता कौशल को कैसे आंकते हैं?)

- Poor (बहुत खराब)
- 1
- 2
- 3
- 4
- 5
- Excellent (बहुत अच्छा)

30. Is there anything else you would like to share about your experiences with health information and healthcare services? (क्या स्वास्थ्य संबंधी जानकारी और स्वास्थ्य सेवाओं के अपने अनुभवों के बारे में आप कुछ और बताना चाहेंगे?)
