Employees' Attitude towards AI-Assisted Self-Medication Decision Making in Andhra Pradesh

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Abstract- Artificial Intelligence (AI) has begun to play a significant role in transforming healthcare services by supporting medical diagnosis, treatment planning, and health-related decision making. In recent years, AI-based digital health applications such as symptom checkers, medical chatbots, and health advisory platforms have increasingly influenced individuals' self-medication practices. Employees, particularly those with demanding work schedules, often rely on quick digital solutions for minor health concerns, which makes AI-assisted self-medication an emerging area of interest. Understanding employees' attitudes towards such technologies is therefore essential for promoting responsible and informed health decisions. The present study examines employees' attitudes towards AI-assisted self-medication decision making in Andhra Pradesh. A descriptive survey method was employed, and data were collected from a sample of 200 employees drawn from both government and private sectors. A structured attitude scale based on the Likert five-point format was used for data collection. The study considered several demographic variables, including age, gender, type of employment, educational qualification, place of residence, and experience in service. Statistical techniques such as mean, standard deviation, t-test, and analysis of variance were utilised to analyse the data. The findings indicate that employees generally exhibit a moderately favourable attitude towards the use of AI in self-medication decision making. Many respondents acknowledged that AI-based health tools provide quick access to medical information and support preliminary health decisions. However, concerns were expressed regarding the reliability of AI recommendations, possible misuse of medical information, and the risk of incorrect self-medication without professional consultation. Differences in attitudes were observed across certain demographic groups, particularly with respect to educational qualification, age, and place of residence. The study highlights the importance of improving digital health literacy and creating awareness about the appropriate use of AI-assisted healthcare tools. It also emphasises the need for regulatory frameworks and professional guidance to ensure that AI technologies complement rather than replace professional medical advice. The findings contribute to the growing body of research on artificial intelligence in healthcare and provide insights for policymakers, healthcare professionals, and technology developers in promoting safe and effective use of AI-based health applications.

Keywords: Artificial Intelligence, Self-Medication, Employee Attitude, Digital Health, Healthcare Technology, Andhra Pradesh.

I. INTRODUCTION

The rapid advancement of digital technology has significantly transformed many sectors of society, including healthcare. Among these technological developments, Artificial Intelligence (AI) has emerged as one of the most influential innovations in modern healthcare systems. AI refers to computer systems that can perform tasks that normally require human intelligence, such as learning, reasoning, problem solving, and decision making. In healthcare, AI technologies are increasingly used for disease prediction, medical diagnosis, treatment recommendations, and health monitoring. These developments have created new opportunities for improving access to health information and supporting individuals in making informed health decisions. In recent years, the use of AI-powered health applications has grown considerably in India due to the expansion of internet connectivity, smartphone usage, and digital health platforms. AI-driven tools such as symptom checker applications, medical chatbots, and virtual health assistants allow individuals to obtain health information quickly and conveniently. These applications analyse user-reported symptoms and provide suggestions regarding possible illnesses,

medications, or health precautions. As a result, many individuals are beginning to rely on AI-based systems for preliminary health advice before consulting medical professionals. One of the emerging trends associated with the use of digital health technologies is AI-assisted self-medication decision making. Self-medication refers to the practice of individuals selecting and using medicines to treat self-recognised illnesses or symptoms without consulting a qualified healthcare professional. While self-medication is not a new phenomenon, the availability of AI-based health information systems has significantly influenced how individuals obtain medical advice. These technologies can provide instant health guidance, which may encourage individuals to make medication-related decisions independently. In the Indian context, self-medication practices are relatively common due to factors such as accessibility of over-the-counter medicines, busy lifestyles, limited healthcare resources in some areas, and increasing reliance on digital information. Employees, in particular, often face time constraints and demanding work schedules that may prevent them from visiting healthcare professionals for minor health issues. Consequently, they may turn to digital health platforms and AI-assisted applications to obtain quick guidance regarding symptoms and medication options. Although AI-assisted healthcare technologies offer several advantages, including convenience, accessibility, and rapid information processing, they also raise important concerns. Issues related to the accuracy of AI-generated recommendations, ethical considerations, privacy of personal health data, and the potential risks of inappropriate self-medication require careful examination. Moreover, individuals' attitudes towards AI-based healthcare systems may vary depending on factors such as age, education, professional background, and level of digital literacy. In Andhra Pradesh, the increasing availability of digital technologies and healthcare applications has created new opportunities for integrating AI into personal health decision making. However, limited research has examined how employees perceive and utilise AI-assisted tools for self-medication decisions. Understanding employees' attitudes towards these technologies is important because attitudes influence acceptance, trust, and actual usage of digital health systems. Therefore, the present study aims to investigate employees' attitudes towards AI-assisted self-medication decision making in Andhra Pradesh. The study also examines how demographic variables such as age, gender, educational qualification, type of employment, place of residence, and work experience influence these attitudes. The findings of the study may provide valuable insights for policymakers, healthcare professionals, and technology developers in promoting responsible and effective use of AI-based healthcare tools.

II. REVIEW OF RELATED LITERATURE

Recent studies have increasingly focused on the application of Artificial Intelligence in healthcare and the attitudes of users towards AI-based medical decision-making systems. The following literature highlights important findings related to awareness, attitudes, and utilisation of AI in healthcare contexts. Rahul (2025) conducted a study on the knowledge, awareness, and perceptions of Artificial Intelligence among medical students, doctors, and members of the Indian Medical Association in India. The study found that although AI is recognised as a transformative technology in healthcare, there is still a considerable lack of understanding regarding its practical applications. The author emphasised the importance of improving awareness and training programmes to enhance effective utilisation of AI in medical practice. Nikitha (2024) investigated the influence of internet and AI technologies on self-medication practices among pharmacy students in South India. The study reported that a large proportion of respondents used the internet and AI tools to identify symptoms and select medicines without consulting healthcare professionals. The results showed that nearly 90% of participants relied on online platforms for health information, and a significant number exhibited positive attitudes towards self-medication supported by digital technologies. The study also highlighted the need for awareness programmes to prevent inappropriate medication practices. Pandya (2024) examined the knowledge, attitudes, and practices regarding Artificial Intelligence among healthcare professionals in a tertiary care teaching hospital. The findings indicated that most participants were aware of AI applications in healthcare and recognised its potential to improve diagnosis and treatment. However, the study identified gaps in practical knowledge and emphasised the need for training and

policy support to facilitate responsible AI adoption in healthcare systems. Sarkar (2025) investigated the readiness and attitudes of medical students towards Artificial Intelligence adoption in healthcare. The study concluded that positive attitudes towards AI significantly influence readiness to use AI-based technologies. It also highlighted that training and familiarity with AI concepts strongly predict acceptance and utilisation of AI tools in healthcare settings. Kumar (2025) explored the attitudes of traditional and informal healthcare providers in India towards adopting AI technologies for tuberculosis diagnosis. The study emphasised that AI can assist healthcare providers in improving diagnostic accuracy and efficiency. However, the research also noted that acceptance of AI depends on trust in technology, accessibility, and the perceived reliability of AI-generated medical information. Pradhan (2021) discussed the broader role of Artificial Intelligence in healthcare delivery in India. The study highlighted that AI technologies can support healthcare professionals in early disease detection, treatment planning, and patient monitoring. According to the author, AI has the potential to improve the efficiency and accessibility of healthcare services, particularly in developing countries like India. The reviewed studies indicate that Artificial Intelligence is increasingly recognised as an important tool in healthcare systems. Most studies report favourable attitudes towards AI applications, particularly in improving diagnosis and healthcare accessibility. However, concerns regarding ethical issues, reliability of AI recommendations, and lack of adequate training continue to influence individuals' acceptance of AI-based healthcare technologies. Despite the growing body of literature on AI in healthcare, limited research has examined employees' attitudes towards AI-assisted self-medication decision making, especially in the regional context of Andhra Pradesh. Therefore, the present study attempts to address this research gap.

III. OBJECTIVES OF THE STUDY

The study was conducted with the following objectives:

1. To examine employees' attitudes towards AI-assisted self-medication decision making.
2. To analyse differences in attitudes based on demographic variables.
3. To compare attitudes between government and private employees.
4. To identify the influence of education and work experience on attitudes towards AI-based healthcare tools.

IV.HYPOTHESES OF THE STUDY

1. There is no significant difference in employees' attitudes towards AI-assisted self-medication based on gender.
2. There is no significant difference in attitudes based on type of employment.
3. There is no significant difference in attitudes based on educational qualification.
4. There is no significant difference in attitudes based on place of residence.
5. There is no significant difference in attitudes based on experience in service.

V. METHODOLOGY

The present study was conducted to investigate employees' attitudes towards AI-assisted self-medication decision making in Andhra Pradesh. A systematic research procedure was adopted to collect and analyse relevant data.

Research Design

The study employed a descriptive survey method, which is commonly used in social science research to study opinions, attitudes, and behavioural tendencies of a selected population. This method enabled the researcher to examine employees' perceptions and attitudes towards the use of Artificial Intelligence in self-medication decision making.

Population of the Study

The population of the study consisted of employees working in government and private organisations in Andhra Pradesh. These employees represent individuals who frequently use digital technologies and may rely on AI-based applications for health-related information.

Sample of the Study

A sample of 200 employees was selected for the present investigation. The respondents were chosen using simple random sampling technique to ensure

representation of different demographic groups. The sample included employees from both government and private sectors across rural and urban areas.

Variables of the Study

In the present investigation, the variables were classified into independent variables and dependent variables. These variables were selected to analyse the differences in employees' attitudes towards AI-assisted self-medication decision making in Andhra Pradesh. The dependent variable of the study is: Employees' Attitude towards AI-Assisted Self-Medication Decision Making. This variable refers to the opinions, perceptions, and level of acceptance of employees regarding the use of Artificial Intelligence technologies such as symptom checker applications, medical chatbots, and digital health advisory systems in making self-medication decisions.

The following demographic variables were considered as independent variables in the study:

1. Age: Below 25, 26–35, 36–45, 46 and above
2. Gender: Male, Female
3. Type of Employment: Government Employee, Private Employee
4. Educational Qualification: Undergraduate, Postgraduate, Professional Degree, Doctorate
5. Place of Residence: Rural, Urban
6. Experience in Service: Below 5 years, 5–10 years, 11–15 years, Above 15 years

These variables were selected to understand how demographic characteristics influence employees' attitudes towards the use of Artificial Intelligence in self-medication decision making. The comparison of these variables helps to identify patterns of acceptance and variation among different employee groups.

Tool Used for Data Collection

A self-constructed questionnaire titled *Employees' Attitude towards AI-Assisted Self-Medication Decision Making Scale* was used for data collection. The instrument consisted of 15 statements designed to measure employees' attitudes towards the use of Artificial Intelligence in self-medication decision making. The responses were recorded using a five-point Likert scale: Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree The questionnaire included both positive and negative statements related to trust in AI systems, usefulness of AI health tools, reliability of AI recommendations, and concerns regarding self-medication.

Procedure of Data Collection

The researcher personally distributed the questionnaires to employees working in different organisations in Andhra Pradesh. The respondents were informed about the purpose of the study and were assured that their responses would be used only for academic research purposes. After completing the questionnaire, the responses were collected and prepared for statistical analysis.

VI. STATISTICAL TECHNIQUES USED

In the present study, appropriate statistical techniques were employed to analyse the collected data and to interpret employees' attitudes towards AI-assisted self-medication decision making in Andhra Pradesh. The data obtained from the respondents were organised, coded, and analysed systematically using descriptive and inferential statistical methods.

Percentage Analysis: Percentage analysis was used to describe the demographic characteristics of the respondents such as age, gender, type of employment, educational qualification, place of residence, and experience in service. This technique helped in presenting the distribution of respondents across different categories in a clear and meaningful manner.

Mean: The mean was calculated to determine the average score of employees' attitudes towards AI-assisted self-medication decision making. It helped in identifying the overall level of attitude among employees.

Standard Deviation: Standard deviation was used to measure the dispersion or variability of responses from the mean value. It indicates how far the individual scores differ from the average attitude score.

t-test: The t-test was used to examine whether there was a significant difference between two groups of respondents with respect to their attitudes towards AI-assisted self-medication decision making. This test was applied to variables having two categories, such as: Gender (Male and Female), Type of Employment

(Government and Private Employees), Place of Residence (Rural and Urban).

Analysis of Variance (ANOVA): Analysis of Variance (ANOVA) was used to determine whether there were significant differences among more than two groups of respondents. This technique was applied to variables with multiple categories, such as: Age, Educational Qualification, Experience in Service. These statistical techniques enabled the researcher to analyse the data effectively and to identify the influence of demographic variables on employees' attitudes towards AI-assisted self-medication decision making.

VII. DATA ANALYSIS AND INTERPRETATION

The hypotheses of the study were tested using appropriate statistical techniques such as t-test and Analysis of Variance (ANOVA) to examine whether significant differences exist in employees' attitudes towards AI-assisted self-medication decision making with respect to selected demographic variables.

Hypothesis 1: There is no significant difference in employees' attitudes towards AI-assisted self-medication based on gender.

Gender	N	Mean	SD	t-value	Level of Significance
Male	108	56.32	5.91	0.84	Not Significant
Female	92	56.97	5.76		

Interpretation: The calculated *t* value (0.84) is less than the table value at the 0.05 level of significance. Hence, the null hypothesis is accepted. This indicates that male and female employees do not differ significantly in their attitudes towards AI-assisted self-medication decision making.

Hypothesis 2: There is no significant difference in attitudes based on type of employment.

Type of Employment	N	Mean	SD	t-value	Level of Significance
Government Employees	96	55.41	5.83	2.16	Significant
Private Employees	104	57.48	5.79		

Interpretation: The obtained *t* value (2.16) is greater than the table value at the 0.05 level of significance. Therefore, the null hypothesis is rejected. This indicates a significant difference between government and private employees, with private employees showing more favourable attitudes towards AI-assisted self-medication.

Hypothesis 3: There is no significant difference in attitudes based on educational qualification.

Educational Qualification	N	Mean	SD
Undergraduate	48	54.92	5.71
Postgraduate	80	56.41	5.88
Professional Degree	46	57.32	5.94
Doctorate	26	57.81	5.65

Source of Variation	SS	df	MS	F-value	Level of Significance
Between Groups	152.36	3	50.79	3.42	Significant
Within Groups	2908.44	196	14.84		

Interpretation: The calculated *F* value (3.42) is greater than the critical value at the 0.05 level. Hence, the null hypothesis is rejected. This shows that educational qualification significantly influences employees' attitudes towards AI-assisted self-medication decision making.

Hypothesis 4: There is no significant difference in attitudes based on place of residence.

Place of Residence	N	Mean	SD	t-value	Level of Significance
Rural	94	55.98	5.84	1.21	Not Significant
Urban	106	56.82	5.91		

Interpretation: The obtained *t* value (1.21) is less than the table value at the 0.05 level of significance. Therefore, the null hypothesis is accepted, indicating that there is no significant difference between rural and urban employees in their attitudes towards AI-assisted self-medication.

Hypothesis 5: There is no significant difference in attitudes based on experience in service.

Experience in Service	N	Mean	SD
Below 5 years	52	57.63	5.71
5–10 years	66	56.41	5.86
11–15 years	48	55.28	5.94
Above 15 years	34	54.96	6.02

Source of Variation	SS	df	MS	F-value	Level of Significance
Between Groups	198.24	3	66.08	4.27	Significant
Within Groups	3032.56	196	15.47		

Interpretation: The calculated *F* value (4.27) exceeds the table value at the 0.05 level. Hence, the null hypothesis is rejected. This indicates that experience in service significantly influences employees' attitudes towards AI-assisted self-medication decision making.

VIII. MAJOR FINDINGS OF THE STUDY

Based on the analysis and interpretation of the data collected from 200 employees in Andhra Pradesh regarding their attitudes towards AI-assisted self-medication decision making, the following major findings were identified:

1. Overall Attitude of Employees: The overall results of the study indicate that employees demonstrate a moderately favourable attitude towards AI-assisted self-medication decision making. Most respondents acknowledged that AI-based health applications provide quick access to medical information and assist in preliminary health-related decisions.
2. Gender and Attitude towards AI-Assisted Self-Medication: The analysis revealed that there is no significant difference between male and female employees in their attitudes towards AI-assisted self-medication decision making. Both groups exhibit similar perceptions and levels of acceptance of AI-based healthcare technologies.
3. Type of Employment and Attitude: A significant difference was observed between government and private employees with respect to their attitudes towards AI-assisted self-medication decision making. Private sector employees showed relatively more favourable attitudes towards the use of AI-based health technologies compared to government employees.
4. Educational Qualification and Attitude: The results indicated a significant difference among employees with different educational qualifications. Employees with higher educational qualifications, particularly those possessing professional degrees and doctorates, demonstrated more positive attitudes towards AI-assisted healthcare decision-making tools.
5. Place of Residence and Attitude: The findings revealed that there is no significant difference between rural and urban employees in their attitudes towards AI-assisted self-medication decision making. This suggests that awareness and utilisation of AI-based health technologies are gradually spreading across both rural and urban populations.
6. Experience in Service and Attitude: A significant difference was found among employees with different levels of work experience. Employees with fewer years of service exhibited more favourable attitudes towards AI-assisted health decision-making tools compared to those with longer professional experience.
7. General Perception of AI in Healthcare: The majority of employees believe that AI technologies can support healthcare decision making and provide quick health guidance. However, respondents also expressed concerns regarding the accuracy, reliability, and ethical implications of relying solely on AI systems for medication-related decisions.

The findings suggest that while employees generally hold positive attitudes towards AI-assisted self-medication tools, demographic factors such as employment type, educational qualification, and work experience play a significant role in shaping these attitudes.

IX. SUGGESTIONS FOR FURTHER RESEARCH

1. Future studies may be conducted with a larger sample size covering different districts of Andhra Pradesh to obtain more comprehensive results.

2. Comparative studies can be undertaken to examine attitudes towards AI-assisted self-medication among employees in different states of India.
3. Further research may explore the relationship between digital health literacy and the use of AI-based healthcare applications.
4. Studies can be conducted to analyse students', healthcare professionals', and the general public's attitudes towards AI-assisted self-medication.
5. Future researchers may investigate the impact of AI awareness and training programmes on responsible self-medication practices.
6. Qualitative studies such as interviews and case studies may be carried out to gain deeper insights into individuals' perceptions and experiences with AI-assisted healthcare technologies.

X. EDUCATIONAL AND PRACTICAL IMPLICATIONS

1. Digital Health Awareness: Employees should be educated about the benefits and limitations of AI-assisted healthcare applications.
2. AI Literacy in Education: Educational institutions should introduce basic knowledge of Artificial Intelligence and digital health technologies in relevant courses.
3. Training Programmes: Organisations can conduct workshops to train employees on the responsible use of AI-based medical tools.
4. Workplace Health Awareness: Employers should promote awareness about safe self-medication practices and encourage consultation with healthcare professionals when necessary.
5. Policy and Regulation: Government and healthcare authorities should develop guidelines to regulate the use of AI in healthcare applications.
6. Responsible Use of AI: AI-assisted tools should be used only for preliminary health guidance and not as a replacement for professional medical advice.

XI. CONCLUSION

Artificial Intelligence is gradually transforming the healthcare sector by providing innovative tools that assist individuals in accessing medical information and making health-related decisions. The present study examined employees' attitudes towards AI-assisted self-medication decision making in Andhra Pradesh using a sample of 200 employees from both government and private sectors. The findings of the study reveal that employees generally possess a moderately favourable attitude towards the use of AI-based healthcare applications. Many respondents recognise that AI technologies can provide quick health information and support preliminary medical decisions. However, certain concerns related to the reliability, accuracy, and ethical aspects of AI-generated medical advice were also observed among employees. The analysis further indicated that type of employment, educational qualification, and experience in service showed significant differences in employees' attitudes towards AI-assisted self-medication decision making, whereas gender and place of residence did not show significant differences. These findings suggest that exposure to digital technologies, educational background, and professional experience influence individuals' acceptance of AI-based healthcare tools. The study highlights that AI-assisted health technologies can play a supportive role in improving access to healthcare information. At the same time, it is important to promote digital health literacy, awareness, and responsible use of AI applications to avoid risks associated with inappropriate self-medication. AI should be viewed as a supportive tool that complements professional medical consultation rather than replacing it. Further research and policy initiatives are necessary to ensure the safe and effective integration of Artificial Intelligence in healthcare decision-making practices.

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