

## A Research on Evaluation of Medication Adherence among Patients with Chronic Diseases

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### ABSTRACT

Medication adherence plays a crucial role in the management and prognosis of chronic diseases. This study aimed to evaluate the level of medication adherence among patients with various chronic conditions and to identify factors influencing adherence behavior. A systematic review and meta-analysis were conducted, searching major databases for studied published between 2010 and 2024. Eligible studies assessed medication Adherence using validated measures such as self-reporting, pill counts, pharmacy refill records, and electronic pointed devices. The review included studies across different geographic regained diverse patient populations. Results indicated a wide range of adherence rates among patients with chronic diseases, with an overall adherence rate of 80%. Factors influencing medication Adherence were identified, including socioeconomic status, education level, health literacy, complexity of medication regimen, side effects, and patient-provider communication. Interventions such as patient education, reminder systems, and simplification of medication regimens showed promise in improving adherence. However, further research is needed to diverse patient populations. Enhancing medication adherence among patients with chronic diseases remains acritical aspect of healthcare delivery to optimize health outcomes and reduce healthcare costs.

**Key words:** Medication adherence, Chronic diseases, Socioeconomic status.

### I. INTRODUCTION

Globally, chronic illnesses like diabetes, hypertension, heart disease, and chronic respiratory disorders present serious obstacles to public health.

For these disorders to control symptoms, avoid complications, and enhance quality of life, long-term pharmaceutical treatment is frequently necessary. Effective chronic disease care, however, depends on patients adhering to recommended treatment plans as well as the availability of suitable medications. The degree to which people take their prescriptions as directed by their doctors is known as medication adherence. A common issue that can result in inadequate disease control, higher healthcare expenses, and increased healthcare consumption is poor adherence to prescription regimens. Numerous causes, such as forgetfulness, prescription side effects, complicated dose schedules, a lack of awareness of the significance of medication, and socioeconomic constraints, can contribute to non-adherence. Healthcare professionals, legislators, and researchers must all have a thorough understanding of drug adherence among patients with chronic illnesses. It can assist in identifying adherence-related obstacles, creating focused treatments to increase adherence, and eventually boosting the efficacy of chronic illness management techniques. Even though the significance of medication adherence has been acknowledged, thorough assessments are still required to determine the reasons behind non-adherence, evaluate adherence rates, and investigate the effect of adherence on clinical outcomes in various chronic illness populations. Through a study of pertinent research, an analysis of adherence rates, the identification of factors impacting adherence, and a discussion of the evaluation's implications for healthcare practice and policy, the goal is to provide insights into medication adherence among patients with chronic conditions. This review aims to contribute to

continuing efforts to maximize patient outcomes and lessen the burden of chronic diseases on individuals and healthcare systems by bringing attention to this crucial aspect of managing chronic diseases.

## II. METHADODOLOGY

Study design Cross-sectional study was conducted among patients with chronic diseases in Narasaraopet. They were randomly approached by sending them the electronic questionnaire. Study site at Government Hospital, Narasaraopet Study period 6 MONTHS. Inclusion criteria the selection criteria included adults (men and nonpregnant women) above 18 years of age with chronic disease who are taking medication both prescribed and over the counter attending primary care service in Narasaraopet. Exclusion criteria Inability to provide informed consent Pregnant women. Concomitant serious medication

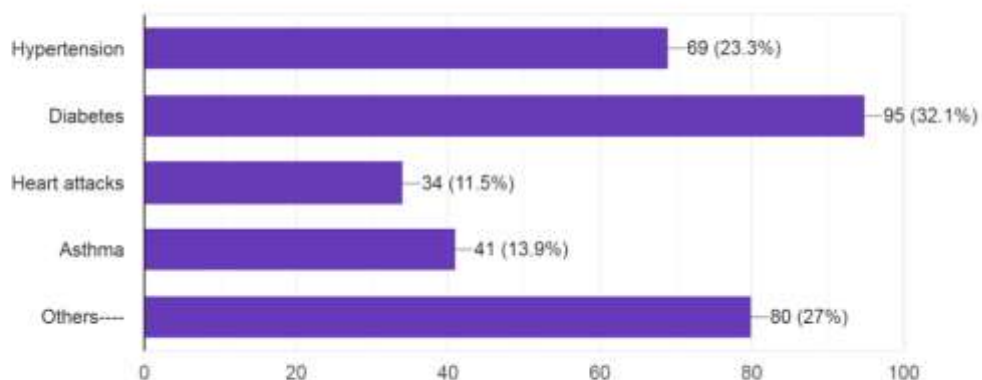
or surgical condition requiring Hospital. Statistics responses from the patients will be analysed using the statistical data will be analysed using SPSS software.

## III. RESULTS AND DISCUSSION

As shown in above graph and chart, nearly 10.1% of participants did not follow up regularly with a primary healthcare centre and 44.3% said that they had forgotten to take their medications in the past. However, most of the participants (55.1%) stated that they took their medicine as instructed by their doctor or pharmacist and 62.8% took their medications on time. The majority of participants (76.4%) said that the pharmacist explained the method of using the medications and the instructions for use, while 65.5% thought that the medications they took were too much.

What disease do you suffer from (you can choose more than one option, if any)?

296 responses



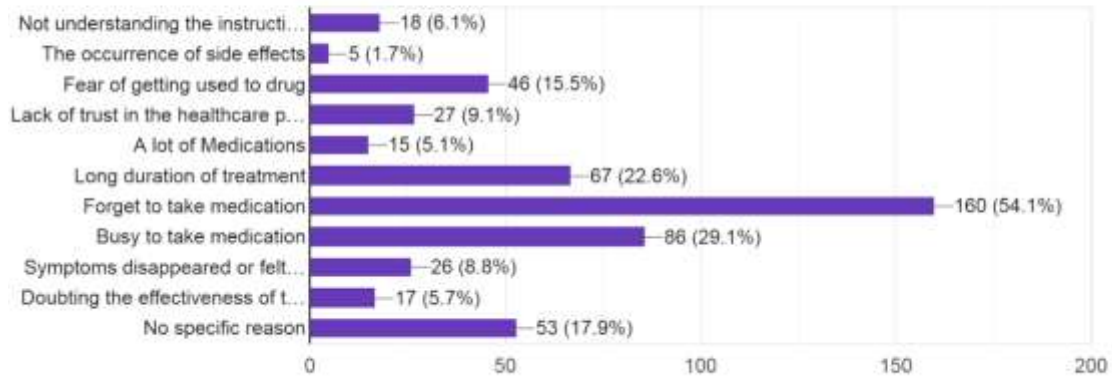
GRAPH-1

In regard to the reasons for medication non-adherence, as shown in graph only 5% of participants said that they did not adhere to their medications because they did not understand the instructions, while 15.5% experienced side effects or were afraid of getting used to the drug. While

almost half of the participants (51.1%) said they had forgotten to take their medications, 29.1% were too busy to take them. Interestingly, having no specific reason for medication non-adherence was the most common cause for non-adherence in our study.

If you are "Not adhered" to taking medications correctly, what are the reasons for that? (You can choose ore than one option, if available)

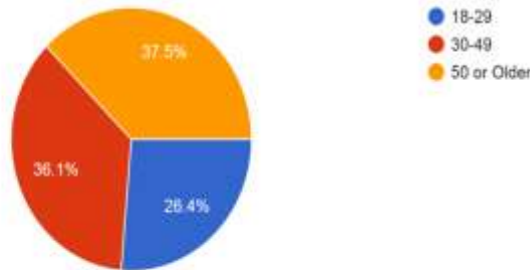
296 responses



GRAPH-2

Age

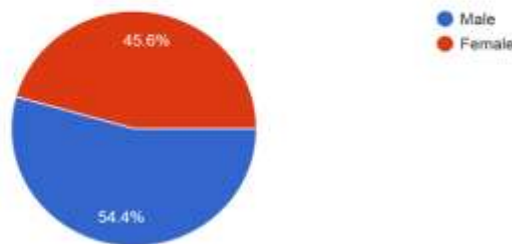
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PIECHART-1: Age wise distribution

Sex

296 responses



PIECHART-2: Gender wise distribution

This study aimed to achieve a better view of drug adherence and involvement, especially in patients with chronic diseases, in the **Vivekananda super speciality hospital & Kadiyala hospitals**. Adherence to drugs and regimen protocols is essential for therapeutic achievement. Consequently, failure to adhere is a major problem that affects patients and the healthcare system. Moreover, it leads to the considerable worsening of disease and death, along with high health care costs. Males represented the higher gender percentage (54.4%) in the current study. Clinical studies have found that women report more health problems than men in both developing and developed countries with regard to their economic status. Moreover, the percentage of medication non-adherence is common in both Men & women who use chronic medications, and they are unlikely to obtain the pharmacological treatment and monitoring recommended by clinical guidelines. There are different types of medication nonadherence. The first is known as nonfulfillment adherence, in which healthcare providers write a prescription but the prescription is never filled or the medication started. However, in this study, most of the reasons for non adherence came under the second type of non adherence, known as non-persistence adherence stop taking their medications after starting them without consulting their doctors or pharmacist. Non-persistence is mainly unintentional and occurs when patients and their healthcare provider's mission communicate about the management plan. For instance, about 12.5% of our participants stated that when they felt better, they sometimes stopped taking medications, and 51.7% increased the dose without consulting their healthcare provider. In the current study, the most common reason for medication non adherence was having a lot of medications (86% of participants). Taking a lot of medications is known as poly pharmacy. However, there is a wide range of definitions for poly pharmacy, ranging from two medications to ten or more medications. The most commonly used definition of poly pharmacy is using five or more medications. In our study, 37.2% of participants took four to six medications, which comes under the most used definition for poly pharmacy. Several studies have shown that poly pharmacy plays a significant role in medication non adherence, and by lowering the number of prescribed medications and simplifying the management plan the patient becomes more adherent to their chronic medications. Taking medication as prescribed plays an important role in

controlling chronic conditions, managing temporary conditions, and general long-term health and wellbeing. The connection with the healthcare provider is a crucial part of medication adherence. In our study, 85% of participants said that their healthcare provider gave them clear instructions about their medication use. Effective conversation improves the patient-health practitioner relationship, decreases both medication errors and non-adherence, and improves the general medical results and patients' physical and intellectual fitness associated with their diseases.

#### IV. CONCLUSION

Failure to adhere is a significant problem that affects not only the patient but also the healthcare system. Barriers to adherence include patient, provider, and health system factors, with connections among them. Determining the barriers for each patient and implementing appropriate techniques to overcome them will be needed to improve medication adherence. Patient education and motivation play significant roles in improving adherence. Healthcare professionals should find practical strategies to enhance medication adherence in their practices, which will enhance therapeutic outcomes. In conclusion, additional research is needed to monitor medication adherence and identify factors contributing to this problem to provide successful strategies to improve medication adherence in VIVEKANANDA SUPER SPECIALITY HOSPITAL, KADIYALA HOSPITALS, NARASAROPETA.

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