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# Adherence to Type 2 Diabetes Treatment

Micah F. Bernard

Cedarville University, [mfbernard@cedarville.edu](mailto:mfbernard@cedarville.edu)

Jessica A. Ward

Cedarville University, [jaward@cedarville.edu](mailto:jaward@cedarville.edu)

Nicholas A. Rudy

Cedarville University, [nicholasarudy@cedarville.edu](mailto:nicholasarudy@cedarville.edu)

Casey A. Nelson

Cedarville University, [caseyanelson@cedarville.edu](mailto:caseyanelson@cedarville.edu)

Lia G. Hickinbotham

Cedarville University, [liahickinbotham@cedarville.edu](mailto:liahickinbotham@cedarville.edu)

*See next page for additional authors*

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**Presenters**

Micah F. Bernard, Jessica A. Ward, Nicholas A. Rudy, Casey A. Nelson, Lia G. Hickinbotham, and Phillip L. Thornton



## Introduction

Medication adherence is the measure of faithfulness to a treatment plan as prescribed by a physician. Patient adherence to medication administration is critical to obtaining desired results. Assessing compliance rates and obstacles that patients face can help pharmacists understand how to promote higher adherence. Understanding these obstacles is crucial because consistent failure to adhere to Diabetes Type 2 treatment can result in serious health problems such as nerve damage, blindness, and skin ulcerations.

## Background

Previous studies suggest that the non-adherence rate is between 25-30% depending on the treatment type. Some of the leading causes of non-adherence were fear of side effects and a lack of confidence in the treatment plan's effectiveness. Studies have not evaluated the impact that pharmacists have in improving adherence to diabetes management.

## Purpose

This study aimed to assess compliance with and obstacles to medication treatment plan adherence in patients with Type 2 Diabetes, as well as determine possible steps pharmacists can take to increase rates.

## Methods

An electronic survey was created, using the website Qualtrics, to assess the adherence tendencies of respondents with Type 2 Diabetes. The survey was sent by email to the faculty, staff, and students of Cedarville University, but only those who are currently using medication to treat Type 2 Diabetes were asked to participate. Twenty-eight responses were received and the data was analyzed using Qualtrics and Excel.

## Results

This study showed that 75% of respondents did not completely adhere to their treatment program. Some reasons for non-adherence determined were pain or discomfort, not remembering doses, taking multiple medications and losing track, difficulty in reading prescription labels or instructions, difficulty obtaining refills, low confidence in effectiveness of treatment plan, fear of side effects, and

preference for non-medical treatment. The most common reasons for noncompliance were forgetfulness, busyness, and cost of medication. Results showed that neither gender nor age had a significant impact on adherence rate.

## Conclusion

Based on this study, the leading factors in non-adherence were forgetfulness, busyness, and cost. Pharmacists who wish to combat the high non-adherence rate in those with Type 2 Diabetes should devise methods to help patients overcome these obstacles.

## References

1. Ciechanowski, P. S., W. J. Katon, J. E. Russo, and E. A. Walker. "The Patient-Provider Relationship: Attachment Theory and Adherence to Treatment in Diabetes." *The American Journal of Psychiatry* 158.01 (2001): n. pag. Web. 12 Feb. 2013.
2. Grant, Richard W., Nicole G. Devita, Daniel E. Singer, and James B. Meigs. "Diabetes Care." *American Diabetes Association* 26.5 (2003): 1408-412. Print.
3. Morisky, Donald E., Alfonso Ang, Marie Krousel-Wood, and Harry Wood. "Predictivity Validity of a Medication Adherence Measure in an Outpatient Setting." *The Journal of Clinical Hypertension* 10.5 (2008): 348-54. *Le Jacq*. Web. 23 Mar. 2013.
4. Rubin, Richard R. "Adherence to Pharmacologic Therapy in Patients with Type 2 Diabetes Mellitus." *The American Journal of Medicine* 118.5 (2005): 27-34. *ScienceDirect*. Web.
5. "Type 2 Diabetes." *PubMed Health*. U.S. National Library of Medicine, 28 June 2011. Web. 2 Feb. 2013.

Common Reasons for Non-Adherence

