R E V I E W

Exploring of Determinants Factors of Anti-Diabetic Medication Adherence in Several Regions of Asia – A Systematic Review

Much Ilham Novalisa Aji Wibowo [1,2], Nanang Munif Yasin[3], Susi Ari Kristina[4], Yayi Suryo Prabandari[5]

[1]Doctoral Program in Pharmaceutical Science, Faculty of Pharmacy, Universitas Gadjah Mada, Yogyakarta, Indonesia; [2]Department of Pharmacy, Faculty of Pharmacy, Universitas Muhammadiyah Purwokerto, Purwokerto, Indonesia; [3]Department of Pharmacology and Clinical Pharmacy, Faculty of Pharmacy, Universitas Gadjah Mada, Yogyakarta, Indonesia; [4]Department of Pharmaceutics, Faculty of Pharmacy, Universitas Gadjah Mada, Yogyakarta, Indonesia; [5]Department of Public Health, Faculty of Medicine, Public Health, and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia

Correspondence: Nanang Munif Yasin, Department of Pharmacology and Clinical Pharmacy, Faculty of Pharmacy, Universitas Gadjah Mada, Mlati sub-district, Yogyakarta, 55281, Indonesia, Tel +62 8122792163, Email yasin_nm@ugm.ac.id

Background: The determinants of medication adherence in people with diabetes may differ between populations of an area due to social environment, cultural beliefs, socioeconomic conditions, education, and many other factors differences.
Objective: Therefore, this study aims to explore, identify and classify the determinants of medication adherence in several Asian regions.
Methods: A systematic literature review was conducted to gain insight into the determinants of medication adherence. Seven relevant databases (EBSCO, ProQuest, PubMed, ScienceDirect, Scopus, Wiley, dan Taylor and Francis) and hand searching methods were conducted from January 2011 to December 2020. Keywords were compiled based on the PICO method. The selection process used the PRISMA guidelines based on inclusion, and the quality was assessed using Crowe's critical assessment tool. Textual summaries and a conceptual framework model of medication adherence were proposed to aid in the understanding of the factors influencing medication adherence.
Results: Twenty-six articles from countries in several Asian regions were further analyzed. Most studies on type 2 diabetes patients in India used the MMAS-8 scale, and cross-sectional study is the most frequently used research design. The medication adherence rate among diabetic patients was low to moderate. Fifty-one specific factors identified were further categorized into twenty-three subdomains and six domains. Furthermore, the determinants were classified into four categories: inconsistent factors, positively related factors, negatively related factors, and non-associated factors. In most studies, patient-related factors dominate the association with medication adherence. This domain relates to patient-specific demographics, physiological feelings, knowledge, perceptions and beliefs, comorbidities, and other factors related to the patient. Several limitations in this review need to be considered for further research.
Conclusion: Medication adherence to diabetic therapy is a complex phenomenon. Most determinants produced disparate findings in terms of statistical significance. The identified factors can serve various goals related to medication adherence. Policymakers and health care providers should consider patient-related factors.
Keywords: medication adherence, diabetes mellitus, determinants, Asia, patient-related factors, associated factors

Introduction

In recent decades, the prevalence of diabetes mellitus has increased worldwide and has become a global epidemic.[1] The highest increase occurred in low-middle income countries in Southeast Asia, South Asia, and West Asia.[1] Almost 21% of all diabetes cases worldwide live in the South Asia region; thus, this region is considered the epicenter of the global diabetes epidemic.[2] Globally, the number of adults with diabetes to increase by more than 50% over the next 20 years.[1] This projection is associated with an increasing prevalence of obesity, unhealthy lifestyles, poor eating habits, and prevention efforts from countries in the Asian region.[3] Two systematic reviews conclude that the inadequate response of the health system to diabetes in several countries in the Asia-Pacific region exacerbates this situation.[4,5]

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