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REVIEW ARTICLE

Self-care practices among older adults with type 2 diabetes: a scoping review

Prácticas de autocuidado en personas mayores que padecen diabetes tipo 2: una revisión de alcance

Práticas de autocuidado em idosos com diabetes tipo 2: uma revisão de escopo

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ABSTRACT

Introduction: Type 2 diabetes is a metabolic disorder characterized by hyperglycemia resulting from insulin resistance or deficiency. It is more prevalent in people over 60 years of age, where the risk of mortality and complications is higher due to the natural, progressive decline in physical and cognitive capacities associated with aging. Self-care is a key strategy in managing type 2 diabetes, as it allows older adults to reduce complications through health education. **Objective:** To describe self-care practices among older adults living with type 2 diabetes. **Methodology:** This scoping review was conducted in four stages: identification, selection, evaluation, and synthesis, utilizing PubMed, ScienceDirect, SciELO, BVS, and Sage Journals. Studies published between 2020 and October 2024 were included, encompassing descriptive, correlational, observational, clinical trial, qualitative, and mixed-methods designs. **Results:** We identified three thematic categories: education and self-efficacy, lifestyle, and family and social support. Sociodemographic variables, educational level, and social support influenced self-care practices. Women showed higher adherence to dietary management and glucose monitoring, whereas men prioritized physical activity. Self-efficacy and health education have emerged as key elements in managing type 2 diabetes, highlighting the

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effectiveness of educational programs and digital tools. **Conclusiones:** Health education and the use of technology promote self-care among patients with type 2 diabetes. Implementing educational programs in primary care settings may enhance disease management and reduce the socioeconomic impact of the condition.

Keywords: Self Care; Aged; Diabetes Mellitus, Type 2; Risk Factors; Noncommunicable Diseases.

RESUMEN

Introducción: La diabetes tipo 2 es un trastorno metabólico caracterizado por la hiperglucemia debido a defectos de la insulina, con mayor prevalencia en personas mayores de 60 años entre quienes probablemente aumenta el riesgo de mortalidad y complicaciones, dado el proceso natural de deterioro progresivo de capacidades físicas y mentales, relacionas con el envejecimiento. Una estrategia clave para el manejo de la diabetes tipo 2 es el autocuidado, el cual, mediante la educación en salud, permite a las personas mayores reducir complicaciones. **Objetivo:** Describir las prácticas de autocuidado en personas mayores que padecen diabetes tipo 2. **Metodología:** Revisión de alcance en cuatro etapas: búsqueda, selección, evaluación y síntesis. Se consultaron las bases de datos PubMed, Science Direct, SciELO, BVS y Sage Journal, incluyendo estudios publicados entre 2020 y octubre de 2024 con diseños descriptivos, correlacionales, observacionales, ensayos clínicos, cualitativos y mixtos. **Resultados:** Se identificaron tres categorías: educación y eficacia, estilo de vida y apoyo familiar y social. El autocuidado depende de factores sociodemográficos, nivel educativo y apoyo social. Las mujeres muestran mayor adherencia a la dieta y monitoreo de glucosa, mientras que los hombres priorizan la actividad física. La autoeficacia y la educación en salud son clave para el manejo de la diabetes tipo 2, destacando la efectividad de programas educativos y herramientas digitales. **Conclusiones:** La educación y el uso de tecnologías favorecen el autocuidado en personas que padecen diabetes tipo 2. Implementar programas educativos en atención primaria puede mejorar la gestión de la enfermedad y reducir su impacto socioeconómico.

Palabras claves: Autocuidado; Anciano; Diabetes Mellitus Tipo 2; Factores de Riesgo; Enfermedades no Transmisibles.

RESUMO

Introdução: A diabetes tipo 2 é uma perturbação metabólica caracterizada por hiperglicemia devido a defeitos de insulina, com maior prevalência em pessoas com mais de 60 anos, entre as quais o risco de mortalidade e complicações aumenta provavelmente, dado o processo natural de deterioração progressiva das capacidades físicas e mentais relacionadas com o envelhecimento. Uma estratégia fundamental para a gestão da diabetes tipo 2 é o autocuidado, que, através da educação para a saúde, permite aos idosos reduzir as complicações. **Objectivo:** Descrever as práticas de autocuidado em idosos com diabetes tipo 2. **Metodologia:** Revisão de escopo em quatro etapas: procura, selecção, avaliação e síntese. Foram consultadas as bases de dados PubMed, Science Direct, SciELO, BVS e Sage Journal, incluindo estudos publicados entre 2020 e outubro de 2024 com desenho descritivo, correlacional, observacional, ensaio clínico, qualitativo e misto. **Resultados:** Foram identificadas três categorias: educação e eficácia, estilo de vida e apoio familiar e social. O autocuidado depende de fatores sociodemográficos, do nível educacional e do suporte social. As mulheres demonstram maior adesão à dieta e à monitorização da glicemia, enquanto os homens priorizam a atividade física. A autoeficácia e a educação para a saúde são fundamentais para a gestão da diabetes tipo 2, destacando a eficácia dos programas educativos e das ferramentas digitais. **Concluões:** A educação e o uso da tecnologia promovem o autocuidado em pessoas com diabetes tipo 2. A implementação de programas educativos nos cuidados primários pode melhorar a gestão da doença e reduzir o seu impacto socioeconómico.

Palavras-Chave: Autocuidado; Idoso; Diabetes Mellitus Tipo 2; Fatores de Risco; Doenças não Transmissíveis.

INTRODUCTION

Type 2 diabetes (T2D) is a metabolic disorder characterized by elevated blood glucose levels resulting from defects in insulin secretion or action.[1] This condition is associated with both non-modifiable risk factors—such as genetics, family history, and age—and modifiable risk factors, including unhealthy lifestyle habits, overweight, obesity, physical inactivity, smoking, and systemic hypertension.[2]

Approximately 463 million adults worldwide, between the ages of 20 and 79, live with type 2 diabetes (T2D), representing 9.3% of the global population.[3] In the Americas, it is estimated that 62 million people are affected, with higher incidence rates in low- and middle-income countries.[4] In Mexico, according to the National Institute of Statistics and Geography (INEGI, 2021), 10.3% of the population aged 20 and over has a prior diagnosis of T2D, with higher prevalence among older adults (60 years and above).[5]

The rising incidence in this age group closely relates to demographic shifts, such as an inverted population pyramid. Aging is a complex biological process that leads to progressive deterioration of physical and mental capacities, increasing susceptibility to disease, and mortality. This phenomenon impacts multiple sectors as well as family structures.[6]

Various strategies have contributed to the understanding and management of T2D, with self-care emerging as one of the most significant. Self-care enables older adults to develop awareness of their condition through health education and to acquire the skills necessary to perform practices that reduce the risk of complications.[7] The World Health Organization (WHO, 2024) defines self-care as the ability of individuals to promote health, prevent disease, maintain well-being, and cope with symptoms, with or without support from healthcare professionals. This concept encompasses a range of activities, including health promotion and literacy, disease prevention and control, medication management, and the care of dependents.[8]

Self-care is an integrative process that encompasses multiple interconnected dimensions, each playing an independent role in overall well-being. It involves caring for both the body and the mind, promoting habits that support physical health and emotional balance. Furthermore, self-care emphasizes individual well-being, the quality of interpersonal relationships, and connection to deeper aspects of life, such as beliefs and spirituality. Through this holistic approach, individuals can enhance their well-being and respond more effectively to everyday challenges.[9]

For older adults with T2D, self-care plays a crucial role in disease management and in reducing the risk of complications. Therefore, this scoping review aimed to describe the self-care practices of older adults living with type 2 diabetes.

METHODOLOGY

Study Design: This scoping review was conducted in October 2024, following the recommendations of the PRISMA 2020 guidelines.[10] This methodology involves four stages: (1) search and selection strategy, (2) data collection and evaluation, (3) eligibility criteria, and (4) synthesis. A structured research question using the PIO format—Problem/Population (P), Intervention (I), and Outcome (O)—guided the review: What are the self-care practices of older adults with type 2 diabetes?

Eligibility Criteria: Included studies featured descriptive, correlational, observational, and randomized controlled trial (RCT) designs, as well as qualitative approaches such as ethnographic, phenomenological, and focus group studies, intervention studies, and mixed-methods research. Articles were excluded if they addressed type 1 diabetes, cardiovascular, renal, or neurological

diseases, or if they focused solely on diabetic foot complications. Reviews, screening evaluations, conference abstracts, and letters to the editor were also excluded from the analysis.

Information Sources: The literature search was conducted in the following scientific databases: PubMed, Science Direct, SciELO, BVS, and Sage Journals. The search included publications from January 2020 through October 2024.

Search Strategy: DeCS and MeSH terms such as *"self-care," "older adult,"* and *"type 2 diabetes"* were used, along with their Spanish equivalents. To optimize search results, Boolean operators (AND, OR, NOT) were applied. Additional criteria included full-text availability and publication in Spanish, English, or Portuguese.

Study Selection Process: The search strategy for each database is outlined in Table 1.

Table N°1. Search Strategy.

Database	Search Strategy
PubMed	(((Self-care) AND (Aged)) AND (Frail Elderly)) AND (Diabetes Mellitus, Type 2)
Science Direct	(((Self-care) AND (Aged)) AND (Frail Elderly)) AND (Diabetes Mellitus, Type 2)
SciELO	(autocuidado) OR (Self-care) AND (adulto mayor) OR (older adults) AND (diabetes tipo 2) OR (type 2 diabetes)
BVS	("autocuidado") OR (Self-care) AND (adulto mayor) OR (older adults) AND (diabetes tipo 2) OR (type 2 diabetes)
Sage Journal:	Self-care AND Aged AND Frail Elderly AND Diabetes Mellitus, Type 2

Source: Prepared by the authors.

Following the initial search, studies were screened according to the inclusion and exclusion criteria. Duplicate records were removed, and a critical reading of titles and abstracts was conducted to select studies aligned with the objectives of this review.

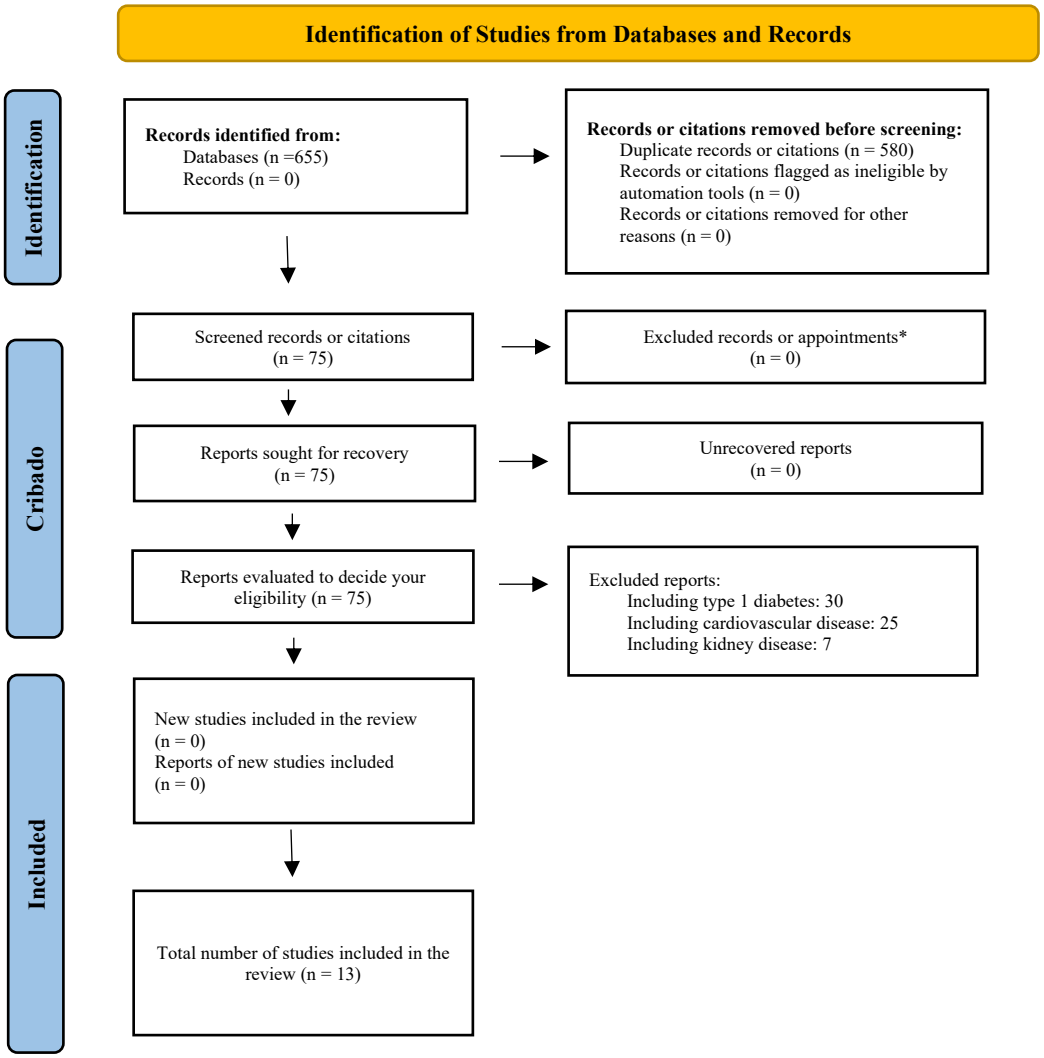
Study Selection Process: Each selected study underwent critical appraisal. The data were then organized into a summary matrix to facilitate analysis and comparison. This matrix included information such as title, author, country, population, sample, objective, study design, methodology, variables, results, and conclusions.

Data Extraction, Synthesis, and Analysis: Relevant studies were identified and selected according to the eligibility criteria. The authors then developed a graphical representation and summary of the findings. Three thematic axes emerged from the analysis of the literature, providing insight into the self-care practices of older adults with T2D: (1) education and self-efficacy in care, (2) lifestyle and self-care, and (3) family and social support in self-care. These themes synthesize the main findings and provide a comprehensive perspective on the management of type 2 diabetes (T2D) in older adults.

RESULTS

Descriptive Findings: The literature review included a total of 13 articles that met the eligibility criteria (see Figure 1).

Figure N°1. Articles included in the literature review.



Source: Developedby the authorsfrom the PRISMA flowchart.[10]

Description of the Articles: A total of 13 articles published between 2020 and 2024 were analyzed. Most of the publications were from the 2022-2023 period (n = 6), followed by the year 2024 (n = 7), indicating a growing interest in the topic in recent years. In terms of geographic distribution, the studies reflected a diverse international representation. Three studies originated from Asian countries (Pakistan and Iran), while five were conducted in Latin America (Colombia, Brazil, and Peru). European contributions came from the United Kingdom, the Netherlands, Switzerland, and Sweden. Additional research was conducted in Thailand, Australia, and the United States.

Most studies were published in English (n = 12), with only one study, conducted in Colombia, published in Spanish. Regarding methodological design, a range of approaches was employed. Five studies employed qualitative methodologies, five used quantitative methods, four applied a mixed-methods approach, and one used interventional methods. Notably, some articles incorporated more than one methodological approach, showing the diversity of research designs in the field see Table 2.

Table N°2. Description of the articles (n = 13).

Categoría	Indicador	Artículos.
Year of publication	2020 - 2021	Bukhsh et al.[12]
	2022 – 2023.	Madero et al.[13] Pettersson et al.[14] Frazão et al.[15] Ong-Artborirak et al.[18] McMorrow et al.[22]
	2024.	Davies et al.[16] Rahbar et al.[17] Savic et al.[19] Tolentino et al.[20] Van den Burg et al.[21] Jordan et al.[23] Ferrazza et al.[24]
Continent	Asia (Pakistan, Iran)	Bukhsh et al. Rahbar et al.
	Latin America (Colombia, Brazil, Peru) Europe (United Kingdom, Netherlands, Switzerland, Sweden)	Madero et al. [13] Frazão et al. [15] Ferrazza et al.[24]
	Southeast Asia and Oceania (Thailand, Australia) North America (United States)	Davies et al.[16] Pettersson et al.[14] Savic et al.[19] Van den Burg et al.[21]
	Latin America (Colombia, Brazil, Peru) Europe (United Kingdom, Netherlands, Switzerland, Sweden)	Ong-Artborirak et al. [18] McMorrow et al.[22]
	Southeast Asia and Oceania (Thailand, Australia) North America (United States)	Tolentino et al.[20] Jordan et al.[23]
Language	English	Bukhsh et al.[12] Pettersson et al.[14] Frazão et al. [15] Davies et al.[16] Rahbar et al.[17] Ong-Artborirak et al. [18] Savic et al.[19] Tolentino et al.[20] Van den Burg et al.[21] McMorrow et al.[22] Jordan et al.[23] Ferrazza et al.[24]
	Spanish	Madero et al. [13]
Methodology	Qualitative	Bukhsh et al.[12] Pettersson et al.[14] Tolentino et al.[20] McMorrow et al.[22] Ferrazza et al.[24]
	Quantitative	Rahbar et al. Madero et al. [13] Jordan et al. Frazão et al. [15] Ong-Artborirak et al. [18]
	Mixed	Pettersson et al.[14] Davies et al.[16] Van den Burg et al.[21] Savic et al.[19] Ferrazza et al.[24]
	Intervention	Rahbar et al.[17]

Source: Prepared by the authors.

Description of Thematic Axes: Three thematic axes emerged, collectively addressing the self-care practices of older adults: (1) Education and Self-Efficacy in Care: This theme explores how education and access to information influence self-care behaviors; (2) Lifestyle and Self-Care: This axis examines lifestyle habits and behavioral changes that can improve diabetes management; (3) Family

and Social Support in Self-Care: This theme highlights the role of family and community support in disease management (see Table 3).

Table N°3. Ejes temáticos identificados en la revisión de alcance.

Author	Variables/ Concepts	Findings
Education and Self-Efficacy in the Management of Type 2 Diabetes		
Bukhsh et al.[12]	Perspectives, beliefs and attitudes, experiences and stories about the daily management of T2D, and economic, sociocultural, and healthcare system barriers.	People face barriers to self-care, including economic, lack of knowledge, social support, and cultural barriers.
Madero et al.[13]	Self-care practices, age, educational level, access to health services, and length of diagnosis of T2D.	Self-care practices in people with T2D are influenced by socioeconomic and educational factors. To improve these practices, it is essential to provide personalized education and improve access to medical care.
Pettersson et al.[14]	Sociodemographic factors: age, gender, educational level, country of origin, immigration status, self-care, access to health services, stress, mental health, and comorbidities.	Older adults face barriers to self-care, such as limited access to health services and financial hardship. This increased their vulnerability to complications and mental health problems.
Frazão et al.[15]	Age, gender, educational level, socioeconomic status, symptoms of depression, attitude toward diabetes, self-care.	Depression in older adults with T2D is negatively correlated with a positive attitude toward the disease and adequate self-care.
Davies et al.[16]	Demographic characteristics, self-care and mental health assessment, educational programs, individual participation, self-care skills, HbA1c, and BMI.	The study concluded that self-care and mental health assessment increased participation in educational programs, improved T2D self-management, and improved older adults' quality of life.
Rahbar et al.[17]	Social media microlearning, conventional learning, knowledge (before and after intervention), self-efficacy (standardized assessment), self-care behaviors (Diabetes Self-Care Index).	The intervention was shown to be effective in improving knowledge, self-efficacy, and self-care behaviors among adult patients with T2D.
Ong-Artborirak et al.[18]	Health literacy, self-efficacy, self-care behaviors, and glycemic control.	Health literacy and self-efficacy are associated with improved self-care behaviors and improved glycemic control. This suggests that educational programs that improve these factors could be effective in improving T2D management.
Lifestyle and Type 2 Diabetes Self-Care		
Savic et al. [19]	Program implementation, clinical, physical, and psychological aspects, initial level of physical activity, sociodemographic factors, and complications related to T2DM.	The program is feasible and effective in improving clinical indicators, physical condition, and psychological well-being in people with T2DM, thanks to its interactive and fun component, which promotes adherence.

Tolentino et al.[20]	Cultural factors, family role, traditional Filipino diet, length of residence in the U.S., cultural beliefs about health, perception of success, treatment adherence, health outcomes, economic barriers, access to healthcare, education level, and knowledge about T2D.	Type 2 diabetes management in Filipino Americans is influenced by culture, where family provides support but also presents challenges, such as traditional diets. Success is defined not only by clinical health but also by quality of life and family roles, highlighting the need for culturally tailored approaches.
Van den Burg et al. [21]	Age, gender, time since diagnosis, medication use, adherence to the Fasting-Mimicking Diet (FMD) program, cycle frequency, changes in biomarkers, frequency and intensity of physical activity, and modification of eating patterns.	The fasting-mimicking diet program improved metabolic biomarkers and promoted positive lifestyle changes. Further studies are needed to confirm its long-term sustainability.
Family and Social Support in the Self-Care of Type 2 Diabetes		
McMorrow et al. [22]	Emotional experience, stress, anxiety, depression, emotional support needs, family support, expectations of healthcare professionals, interaction with healthcare professionals, experiences and expectations with primary care, mental health educational programs or resources, barriers to emotional support, and stigmatization.	Emotional support is crucial for people with T2D, as many face stress, anxiety, and stigmatization. Social support should be strengthened through family and community networks. Interventions should be more comprehensive, combining physical and emotional treatment to improve people's quality of life.
Jordan et al.[23]	Level of knowledge, social and family support, cultural attitudes toward health, T2D control, emotional well-being, quality of life, access to health services, and socioeconomic factors.	The family plays a key role in the management of T2D in PM, offering emotional and practical support, which improves treatment adherence and reduces stress. Cultural beliefs can influence disease management.
Ferrazza et al.[24]	Age, educational level, employment status, geographic location, masculine gender norms, definition, expectations, role perceptions, perceived family support, emotional, economic, and practical support, perception of the disease, degree of acceptance, feelings of vulnerability, sociodemographic factors, influence of religion, and cultural values.	Gender norms affect how men with T2D perceive family support, leading to a rejection of emotional support. Changing these norms could facilitate acceptance of such support, improving disease management. Interventions should consider differences by age and location to encourage a more open view of male roles in health.

DT2= Type 2 Diabetes, HbA1c= Glycosylated Hemoglobin, BMI= Body Mass Index.

Source: Prepared by the authors.

Education and Self-Efficacy in the Management of Type 2 Diabetes

The main findings indicate that female participants exhibited better self-care practices related to diet and blood glucose monitoring, while male participants showed greater adherence to physical exercise. Additionally, a higher educational level was associated with increased understanding of the disease among older adults aged 60–70 who were physically and cognitively independent.[11] Participants lacking adequate knowledge of T2D and its implications were less likely to adopt self-care behaviors.

This was attributed to factors such as the high cost of medications, lack of access to quality healthcare services, and the perception that self-care practices require considerable effort.[12]

Although some people adhered to pharmacological treatment, they exhibited significant deficiencies in other aspects of self-care, such as time constraints, fatigue, pre-existing physical conditions, and neglect of foot care. It was more common for participants from higher socioeconomic backgrounds to use digital tools, and this was associated with improved disease management.[13] Furthermore, the use of mobile applications and support from community networks was found to enhance adherence to self-care practices.[14]

Depression showed a significant negative correlation with self-care behaviors. A negative attitude toward the illness was linked to greater depressive symptoms and reduced disease management, whereas a positive attitude correlated with improved emotional well-being and better adherence to self-care behaviors.[15] Online self-management education programs, including the use of specialized software, resulted in a significant reduction in glycated hemoglobin (HbA1c) levels.[16] Social media–based learning also yielded positive outcomes in terms of knowledge, self-efficacy, and self-care behaviors.[17] Similarly, a high educational level, a reliable support network, and marital status (being married or cohabiting) were correlated with greater adherence to self-care. Participants with higher self-efficacy demonstrated more consistent disease management habits, which in turn resulted in improved HbA1c levels.[18]

However, there were several perceived barriers to effective self-care. These included social expectations to participate in shared meals, reluctance to decline food prepared by others, low household income, and a lack of family support.[12,13] Social isolation resulting from pandemic-related restrictions further contributed to mental health deterioration, which negatively affected disease management.[14]

Older adults with a more optimistic outlook or acceptance of their condition were more likely to follow medical recommendations. Social support emerged as a significant factor in improving both attitudes and self-care practices, thereby contributing to a reduction in depressive symptoms.[15] Those who regularly attended sessions and participated in group activities exhibited better glycemic control and enhanced capacity to manage their T2D. Trusting relationships with health educators and peer support were key factors in the success of such interventions.[16] Participation in social networks also correlated with improvements in T2D management.[17]

Another important finding was the impact of personal motivation and perceptions of their ability to control T2D, which significantly influenced their engagement in self-care practices.[13] The integration of mental health services into primary care for T2D was emphasized, given the considerable impact of stress on disease management.[14] Consequently, multidimensional interventions are recommended—those that not only address depressive symptoms but also psychosocial factors and attitudes toward the disease. These should include educational programs on T2D, psychological support, and strategies to encourage self-care behaviors, while actively involving family members in the process.[15] Moreover, the studies highlighted the importance of adequately training health professionals to deliver health education. Programs should include cultural and contextual adaptation,[16] considering factors such as technological accessibility, cultural barriers, and the presence of supportive healthcare professionals, to maximize the benefits of educational approaches.[17] Equally important is ensuring the availability of educational materials designed for older adults with varying levels of literacy.[18]

Lifestyle and Type 2 Diabetes Self-Care

Key findings indicate that approximately 75% of participants reported reducing their consumption of ultra-processed foods and sugars, while 60% adopted a plant-based dietary pattern. These changes were accompanied by increased physical activity and improvements in metabolic, psychological, and emotional health.[19] However, tensions were also reported between cultural identity and medical recommendations,[20] along with weight loss and the adoption of structured physical routines.[21]

The interventions also enhanced intrinsic motivation and the adoption of sustainable behavioral changes. Individuals who perceived benefits early in the process were more likely to maintain those changes over the long term. Furthermore, social support—whether through in-person or online groups—was associated with greater adherence and the incorporation of healthy habits.[19]

On the other hand, the authors of this review detected some barriers. Social and cultural pressures to participate in traditional festivities and communal meals often posed challenges to maintaining healthy behaviors. Additionally, some traditional beliefs—such as viewing diabetes as a "divine punishment" or a "test of faith"—were linked to more passive attitudes toward disease management.[20]

Family and Social Support in the Self-Care of Type 2 Diabetes

A lack of support in managing glucose levels, diet, medication adherence, and emotional regulation was associated with feelings of isolation, frustration, and anxiety in response to challenges related to diet, weight, and glycemia.[22] Family support was linked to better outcomes in treatment adherence, glycemic control, and self-efficacy. However, critical or controlling attitudes often led to stress and conflict, complicating diabetes management. There were also generational and gender differences, meaning that women more frequently assumed active caregiving roles. At the same time, men faced cultural barriers to seeking support, influenced by values of self-reliance and responsibility for household well-being.[23] Additionally, men experienced greater societal pressure to project an image of strength, which hindered their ability to seek support from healthcare professionals or family.[24]

In positive relational dynamics, participants appreciated healthcare professionals who showed empathy, listened to their concerns, and provided practical and emotional support, which promoted adherence to medical advice.[22] Active family involvement in planning healthy meals and engaging in physical activity was identified as a significant source of support.[23] However, men showed a greater willingness to accept support when they perceived it as complementary to their protective role within the family, motivated by the desire to stay healthy for the well-being of their loved ones.[24]

Noteworthy findings included gaps in emotional care, perceived stigma, the importance of empathy in clinical interactions,[22] the need for a holistic approach, family dynamics, the active participation of diabetes educators, and the impact of economic, educational, and social limitations. Also, gender norms as a factor in self-care practices, the need for culturally tailored programs, and the crucial role of wives and partners, as well as the lack of emotional support available to men.[23, 24]

DISCUSSION

The results of the analyzed studies reflect a complex interaction between demographic, socioeconomic, and psychological variables in the management of T2D, highlighting both barriers and facilitators to self-care practices. The evidence consistently shows that factors such as age, gender, educational level, and economic status significantly influence the adoption of healthy behaviors.

Older adults aged 60 to 65 exhibit better self-care practices compared to those in older age groups, which may be attributed to a higher level of physical and cognitive independence. However, gender differences play a role: women tend to show greater adherence to dietary practices and glucose monitoring, while men are more consistent with physical activity.[11]

Educational attainment and socioeconomic status are particularly relevant, as they facilitate access to the information and resources necessary for proper T2D management.[12,15] This finding shows the need to incorporate emotional and psychotherapeutic support as an integral part of disease management, given that a positive attitude not only improves emotional well-being but also enhances adherence to essential self-care behaviors.[25-56]

Educational programs have been shown to significantly reduce HbA1c levels, improve treatment adherence, and promote lifestyle changes.[16] These interventions also have the potential to address psychological barriers by fostering a positive attitude toward the disease. Moreover, they can be adapted to incorporate technology such as mobile applications or microlearning platforms, which have shown promising results in enhancing knowledge and self-care practices.[27]

The use of mobile applications and community networks enabled the successful implementation of adaptive strategies,[14] representing a significant opportunity area for integration. Digital platforms could offer effective and accessible solutions in resource-limited contexts.[27] The studies emphasize the importance of comprehensive approaches that address both the physical and emotional needs of individuals, considering each specific context through the promotion of educational, technological, and community-based strategies that empower older adults, reduce barriers, and foster a sustainable approach to self-care.[28]

Older adults with higher levels of health literacy demonstrate better glycemic control, whereas those with lower levels face greater challenges in managing T2D. Self-efficacy is a crucial mediator; people with greater confidence in their self-care skills exhibit improved disease management behaviors, which translates into optimal levels of glycated hemoglobin (HbA1c).[29,30] However, it is important to consider contextual and cultural factors when evaluating the relationship between health literacy and glycemic control, as well as to develop personalized interventions that address both health literacy and self-efficacy to enhance self-care.

Dietary and lifestyle interventions improve metabolic health, psychological and social well-being, and reduce the consumption of ultra-processed foods and simple sugars, while promoting improvements in physical activity and emotional well-being.[19] Therefore, a healthy lifestyle is a key strategy for controlling the progression of T2D.[30,31]

Similarly, cultural, social, and family barriers that influence self-care in T2D must be considered, as successful disease management in older adults involves maintaining glycemic control, adhering to a healthy lifestyle, maintaining harmonious relationships, and fulfilling social and familial roles.[20,21] This reinforces the need to address both individual and sociocultural factors in promoting healthy and sustainable lifestyles.[22]

Altogether, the studies underscore the importance of multidisciplinary care that considers biological, psychological, emotional, social, and cultural factors, alongside inclusive and culturally sensitive prevention, control, and management strategies to maximize effectiveness and sustainability. Providing education programs and psychological support may be key to improving treatment adherence and glycemic control in older adults.

This review has some limitations, including the heterogeneity of approaches and methodologies used across the analyzed studies to measure the efficacy of self-care and type 2 diabetes management (such as various types of educational programs and technological interventions). This hinders the possibility of comparing and integrating the findings. Furthermore, the lack of homogeneity in the interventions may influence the outcomes of the review.

CONCLUSIONS

Self-care in older adults with type 2 diabetes represents a complex challenge requiring a comprehensive, multidimensional, and personalized approach. This approach should include strategies addressing not only biological aspects but also emotional, social, educational, and economic barriers affecting people's capacity to adhere to self-care practices.

Education, combined with the use of technologies such as digital learning and the integration of educational programs into primary care services, can significantly enhance self-care, knowledge, and self-efficacy among individuals living with type 2 diabetes (T2D). In this context, nursing professionals play a fundamental role by providing health education, monitoring treatment adherence, and promoting lifestyle changes through personalized guidance and support.

Collectively, these strategies not only improve individuals' ability to manage the disease but also contribute to reducing the socioeconomic burden associated with T2D complications. This sustainable, person-centered approach—actively supported by nursing—has the potential to transform the paradigm of non-communicable disease management, promoting more equitable, accessible, and effective care.

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AUTORSHIP:
JAVF: Conceptualization, Formal Analysis, Methodology, Supervision, Validation, Visualization, Writing – Original Draft Preparation, Writing – Review & Editing.
KPMG: Conceptualization, Formal Analysis, Methodology, Supervision, Validation, Visualization, Writing – Original Draft Preparation, Writing – Review & Editing.
YMM: Supervision, Validation, Visualization, Writing – Original Draft Preparation, Writing – Review & Editing.
EMAG: Supervision, Validation, Visualization, Writing – Original Draft Preparation, Writing – Review & Editing.
LVBB: Supervision, Validation, Visualization, Writing – Original Draft Preparation, Writing – Review & Editing.

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