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SYSTEMATIC REVIEW

Nursing strategies to improve treatment adherence in patients with type 2 diabetes

Estrategias de enfermería para mejorar la adherencia al tratamiento en pacientes con diabetes tipo 2

Kimberly Anais Pineda Quitio[1], Yulisa Isabel Soria Yupangui[1,2], Emily Obdulia Analuisa Analuisa[1], Siomara Abigail Loja Lasluisa[1], Jeannette Mercedes Acosta Nuñez[1]

[1]Universidad Técnica de Ambato, Facultad de Ciencias de la Salud, Carrera de Enfermería. Ambato, Ecuador.
[2]Dirección de Investigación y Desarrollo, DIDE, Universidad Técnica de Ambato. Ambato, Ecuador.

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Corresponding Author
Jeannette Mercedes Acosta Nuñez

ABSTRACT

Introduction: type 2 diabetes mellitus (T2DM) is a highly prevalent chronic disease, projected to affect more than 700 million adults by 2045. Improving adherence to treatment remains a challenge in Latin America and Ecuador, due to communication and socioeconomic barriers. Patient-centred nursing strategies and digital health emerge as promising alternatives.
Method: a qualitative and descriptive systematic review was conducted under PRISMA 2020 and the PICO approach, including studies from 2020 to 2025 in recognised scientific databases, evaluated with CASP and JBI.
Results: the data, summarised in tables, show that the nursing strategies identified to improve adherence to treatment in patients with type 2 diabetes were grouped into educational interventions, behavioural support, continuous monitoring and use of technological reminders. The quality of the studies was assessed through criteria such as the validity of the instruments and the relevance of the findings.
Conclusions: personalised and tailored nursing strategies optimise glycaemic control and quality of life, and standardised protocols and evidence for clinical practice are recommended.

Keywords: Critical Care Nursing; Type 2 Diabetes Mellitus; Treatment Adherence; Compliance; Prevention.

RESUMEN

Introducción: la diabetes mellitus tipo 2 (DMT2) es una enfermedad crónica de alta prevalencia, proyectándose que en 2045 afectará a más de 700 millones de adultos. Mejorar la adherencia al tratamiento sigue siendo un reto en América Latina y Ecuador, debido a barreras comunicacionales y socioeconómicas. Las estrategias de enfermería centradas en el paciente y la salud digital surgen como alternativas prometedoras.
Método: se realizó una revisión sistemática cualitativa y descriptiva bajo PRISMA 2020 y el enfoque PICO, incluyendo estudios de 2020 a 2025 en bases científicas reconocidas, evaluados con CASP y JBI.
Resultados: los datos, resumidos en tablas, muestran que las estrategias de enfermería identificadas para mejorar la adherencia al tratamiento en pacientes con diabetes tipo 2 se agruparon en intervenciones educativas, apoyo conductual, monitorización continua y uso de recordatorios tecnológicos. Se valoró la calidad de los estudios mediante criterios como la validez de los instrumentos y la pertinencia de los hallazgos.
Conclusiones: las estrategias de enfermería personalizadas y adaptadas optimizan el control glucémico y la calidad de vida, recomendándose protocolos estandarizados y evidencia para la práctica clínica.

Palabras clave: Enfermería de Cuidados Críticos; Diabetes Mellitus Tipo 2; Adherencia al Tratamiento; Cumplimiento; Prevención.

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INTRODUCTION

The increasing prevalence of type 2 diabetes mellitus (T2DM) continues to pose a significant global health challenge. According to the International Diabetes Federation (IDF), in 2023, approximately 537 million adults worldwide are living with diabetes, and projections indicate that this number could exceed 700 million by 2045. Advances in digital health, including mobile monitoring and telehealth applications, are transforming nursing practices by facilitating real-time patient engagement and support for self-management, contributing to the importance of ethical, patient-centered care.[1]

Globally, poor adherence to prescribed therapies is associated with increased hospitalizations, complications, and mortality, with estimates accounting for up to 50 % of treatment failures. In Latin America, studies report that suboptimal adherence ranges from 40 % to 70 %, leading to increased cardiovascular events and diabetic complications. In Ecuador, the Ministry of Public Health identifies medication mismanagement and noncompliance as the main factors contributing to inadequate glycemic control, highlighting the need for systematic approaches.[2]

The development of nursing strategies to improve treatment adherence can be supported by theoretical models that explain patient behavior and the safety of healthcare. One such model is Reason's Swiss cheese theory, which visualizes system failures in which errors occur due to the simultaneous failure of multiple layers of defense, highlighting systemic vulnerabilities rather than individual shortcomings. This perspective is relevant to the management of T2DM, where complex medication regimens and lifestyle modifications can overwhelm patients and caregivers.[3]

Previous research reflects various efforts to identify factors influencing treatment adherence among diabetic patients and the role of nursing interventions. A study conducted in Mexico by Mora[4] indicated that personalized education and continuous follow-up improved adherence. In contrast, research in Paraguay by Villalba et al.[5] highlighted obstacles such as health barriers, knowledge gaps, and socioeconomic factors. In Ecuador, evidence from Noboa[6] suggests that deficiencies in nurse-patient communication and limited health literacy contribute to poor adherence.

This study is justified by the need to improve adherence to treatment in patients with type 2 diabetes mellitus (T2DM), as adherence is a key determinant of disease prognosis. Understanding and developing effective nursing strategies can lead to improved glycemic control, reduced complication rates, and overall improvement in patient's quality of life.[7] In addition, the findings will provide evidence-based guidance for healthcare providers and policymakers on implementing interventions that are feasible and sustainable within existing healthcare frameworks.

Although there is extensive international literature exploring barriers to treatment adherence in type 2 diabetes mellitus (T2DM), a notable paucity of studies remains investigating the efficacy of nurse-led strategies in diverse healthcare settings, particularly in Latin America and Ecuador. Most existing research tends to focus on patient-related factors or systemic issues without examining the direct impact of nursing interventions.[8] In addition, there is limited understanding of how organizational, cultural, and socioeconomic factors influence.

The primary objective of this study is to examine nursing strategies that enhance treatment adherence among patients with type 2 diabetes. Specifically, it aims to identify the most relevant interventions carried out by nurses, assess their impact on patients' adherence and glycemic control, and explore the barriers and facilitators within healthcare settings.[9] In addition, the study aims to develop recommendations for implementing evidence-based nursing practices adapted to local cultural and organizational contexts.

METHOD

The study employs a qualitative and descriptive approach to investigate nursing strategies designed to enhance treatment adherence among patients with type 2 diabetes mellitus (T2DM). The aim is to synthesize existing scientific evidence to identify the most effective interventions and practices employed in clinical settings. A comprehensive literature review was conducted by the PRISMA 2020 guidelines, ensuring the systematic identification, screening, and eligibility assessment of relevant studies. This method facilitates an understanding of the multifaceted influences, encompassing social, environmental, and systemic factors that impact nursing practice.

The formulation of the research question was guided by the PICO model, with the population defined as adult patients diagnosed with type 2 diabetes mellitus (T2DM). The focus was on nursing interventions and strategies, specifically those designed to improve adherence compared to standard care.[3] The context spanned both community and hospital settings. The central question was: what are the most effective nursing strategies to improve adherence to treatment in T2DM, and how do these interventions compare with usual care that lacks specific nursing support?

To collect data, we searched multiple scientific databases, including PubMed, Cambridge Core, Cochrane Reviews, Scopus, ScienceDirect, JAMA, Redalyc, LILACS, Biblioteca Electrónica en Línea (SCIELO), Biblioteca Virtual en Salud (BVS), and Latindex.

Controlled vocabulary terms, such as Medical Subject Headings (MeSH) and DeCS terms, were used, utilizing Boolean operators (AND, OR) to refine the search. Key descriptors included "Critical care nursing AND diabetes mellitus type 2", "Diabetes mellitus type 2 AND treatment adherence", "Diabetes mellitus type 2 AND critical nursing OR treatment adherence AND compliance," and "Diabetes mellitus type 2 AND Prevention".

Search parameters were limited to studies published between 2020 and 2025, available in unlimited languages and with full-text access. This process was conducted throughout March and April 2025, with inclusion criteria focused on studies of nursing interventions.

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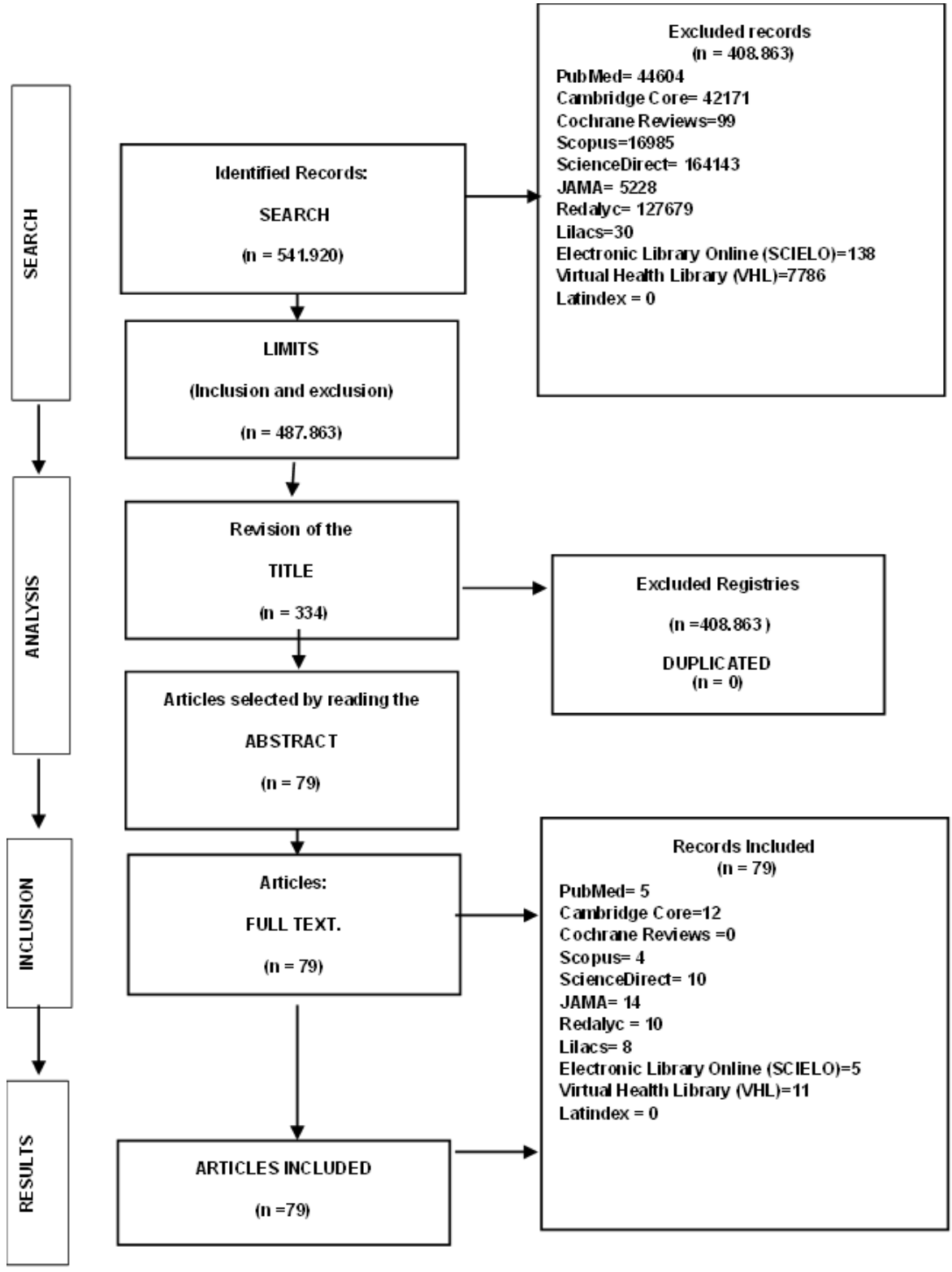

Figure 1. Flowchart of bibliographic search strategies and search results

The selection of studies involved a multistage screening process, which began with identification through database searches and was followed by filtering based on titles and abstracts. It culminated in full-text reviews to confirm relevance. During the literature selection process, articles that did not meet the previously established inclusion criteria were discarded. In particular, studies that did not directly address nursing strategies aimed at improving adherence to treatment in patients with type 2 diabetes were excluded from the analysis. To ensure transparency and reproducibility, the entire process was documented using PRISMA[8] in the following section. Flowchart as illustrated in the as described in the Annexes. This process aimed to select high-quality evidence relevant to nursing strategies in the context of diabetes care, minimizing bias and ensuring comprehensive coverage of current research.

The methodological quality of the included studies was assessed using validated tools appropriate to each research design. The Critical Appraisal Skills Programme (CASP) checklist was used for qualitative studies, while the Joanna Briggs Institute (JBI)

critical appraisal tools assessed quantitative and mixed-methods research.[1] Each study was assigned a quality rating — —high, moderate, or low — —based on the scoring criteria. This step ensured that only methodologically sound studies contributed to the synthesis, increasing the reliability of the results.

Data extraction was conducted using a matrix adapted to capture key information, including author, year, research design, and sample characteristics. Extracted data were organized into thematic categories, such as educational approaches, behavioral support, technology-assisted interventions, and patient involvement techniques.[7] Given the heterogeneity in study designs and results, a narrative synthesis was adopted. The findings were grouped into general themes to facilitate understanding of effective nursing practices.

The synthesis aimed to highlight commonalities and differences between studies, revealing the breadth of nursing strategies available to improve adherence. Limitations due to methodological variability and potential publication biases were acknowledged.[9] Since meta-analysis was not feasible, a detailed descriptive approach was prioritized, with an emphasis on contextual relevance and practical implications. This review provides a basis for developing tailored nursing interventions that promote adherence and optimize diabetes management through nursing care.

RESULTS

Through the systematic review we obtained the results in table 1, on nursing strategies to improve adherence to treatment in patients with type 2 diabetes

The review of table 1 shows that the search strategy used focused on obtaining relevant scientific evidence through internationally recognized databases, such as PubMed, Cochrane, ScienceDirect, and Redalyc.

This selection was essential to ensure the quality and timeliness of the studies retrieved, in addition to facilitating access to original articles of high scientific rigor.

The use of specific combinations of MeSH terms and descriptors related to type 2 diabetes, as well as aspects such as adherence to treatment, nursing interventions, and critical care, enabled the delimitation of a set of relevant and specific literature for the topic of interest.

Notably, the search algorithms enabled us to filter the results by age, language, and study type, prioritizing clinical trials and intervention studies that offer robust evidence.

This systematic approach helped to reduce heterogeneity in the data retrieved and to strengthen the validity of the conclusions derived from the review. In addition, the inclusion of specific limits, such as the range of years of publication, facilitated obtaining up-to-date information, reflecting the most recent advances in nursing strategies to improve adherence in patients with type 2 diabetes.

The selection process, based on reading titles, presented a first filter that enabled the identification of studies with a clinical and experimental approach, which is fundamental to supporting evidence-based interventions.

The reading of the abstracts subsequently refined the selection, highlighting those that directly addressed issues related to nursing strategies and disease management. This screening method is crucial in the systematic review, as it orients toward articles that provide relevant results and methodologies for scientific discussion.

Once the abstracts had been reviewed, the complete reading of the articles made it possible to analyze methodological aspects, results, and conclusions, ensuring that only studies with scientific rigor and coherence in their design were included in the review. In this process, the quality of the research was assessed through criteria such as the sample, validity of the instruments, and relevance of the findings about nursing practice.

This allowed a deeper understanding of the state of the art and the identification of best practices in the comprehensive care of diabetic patients.

The comparison between the different databases revealed that some, such as PubMed and Cochrane, provided a greater number of relevant studies. At the same time, ScienceDirect and Redalyc complemented the evidence with more specific research in various international contexts.

The diversity of sources enriched the review by incorporating studies that employed both qualitative and quantitative approaches, allowing for a comprehensive analysis from multiple research perspectives. This inclusive approach fosters a more thorough and nuanced discussion in the nursing field.

The inclusion and exclusion criteria played a decisive role in the final selection of articles. The preference for studies published in the last five years in English and Spanish guaranteed temporal and linguistic relevance.

The exclusion of double articles and those with deficient methodologies enabled the maintenance of an optimal level of evidence, thereby enhancing the quality of the recommendations that emerged from the literature review.

The rigorous selection of articles ensured that the proposals and results discussed were applicable and relevant to clinical nursing practice. The systematic search strategy, combined with a critical and orderly review of the studies, provided a solid foundation for understanding effective strategies to promote adherence in patients with type 2 diabetes.

This reinforces the importance of adopting rigorous methods in the search for and selection of evidence to inform changes in nursing care and improve health outcomes.

The results presented in table 2 indicate that various nursing strategies focused on individualized management have proven effective in improving adherence to treatment in patients with type 2 diabetes.

Table 1. Search strategies and results of the bibliographic compilation

Database Search engine Library	Search Algorithms	Search Results	Limits Inclusion and exclusion criteria	Retrieved Articles	Title Selection	Duplicate	Abstract Selection	Complete Reading	Scientific Rigor	Included Articles
Pubmed	Critical Care Nursing AND Diabetes Mellitus Type 2	71	Years 5 Original scientific articles (clinical trials). Open access. Unlimited language.	40	10	0	3	3	3	3
	Diabetes Mellitus type 2 AND treatment Adherence	2221		439	11	0	1	1	1	1
	Diabetes Mellitus Type 2 AND Critical Care Nursing OR Treatment Adherence AND Compliance	34920		4283	13	0	1	1	1	1
	Diabetes Mellitus Type 2 AND Prevention	16695		4541	9	0	0	0	0	0
Cambridge Core	Critical Care Nursing AND Diabetes Mellitus Type 2	1599	Years 5 Original scientific articles (Clinical trials). Open access.	36	10	0	2	2	2	2
	Diabetes Mellitus type 2 AND treatment Adherence	4295		756	14	0	4	4	4	4
	Diabetes Mellitus Type 2 AND Critical Care Nursing OR Treatment Adherence AND Compliance	0		0	0	0	0	0	0	0
	Diabetes Mellitus Type 2 AND Prevention	37144		75	33	0	6	6	6	6
Cochrane Reviews	Critical Care Nursing AND Diabetes Mellitus Type 2	1	Years 5 Articles original cientific articles (clinical trials). Free access. Unlimited language.	1	1	0	0	0	0	0
	Diabetes Mellitus type 2 AND treatment Adherence	10		2	1	0	0	0	0	0
	Diabetes Mellitus Type 2 AND Critical Care Nursing OR Treatment Adherence AND Compliance	52		14	1	0	0	0	0	0
	Diabetes Mellitus Type 2 AND Prevention	82		29	1	0	0	0	0	0
Scopus	Critical Care Nursing AND Diabetes Mellitus Type 2	84	Years 5 Original scientific articles (Clinical trials). Free access. Unlimited language.	27	8	0	0	0	0	0
	Diabetes Mellitus type 2 AND treatment Adherence	4071		1549	7	0	1	1	1	1
	Diabetes Mellitus Type 2 AND Critical Care Nursing OR Treatment Adherence AND Compliance	54		26	10	0	0	0	0	0
	Diabetes Mellitus Type 2 AND Prevention	23007		8629	16	0	3	3	3	3

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Science Direct	Critical Care Nursing AND Diabetes Mellitus Type 2	11751	Years 5 Original scientific articles (Clinical trials). Open access. Unlimited language.	4239	9	0	2	2	2	2
	Diabetes Mellitus type 2 AND treatment Adherence	34802		13557	9	0	2	2	2	2
	Diabetes Mellitus Type 2 AND Critical Care Nursing OR Treatment Adherence AND Compliance	96102		36938	20	0	3	3	3	3
	Diabetes Mellitus Type 2 AND Prevention	114532		38310	10	0	3	3	3	3
JAMA	Critical Care Nursing AND Diabetes Mellitus Type 2	513	Years 5 Original scientific articles (Clinical trials). Free access. Unlimited language	130	12	0	6	6	6	6
	Diabetes Mellitus type 2 AND treatment Adherence	1257		301	10	0	5	5	5	5
	Diabetes Mellitus Type 2 AND Critical Care Nursing OR Treatment Adherence AND Compliance	39		5	2	0	2	2	2	2
	Diabetes Mellitus Type 2 AND Prevention	4015		160	15	0	1	1	1	1
Redalyc	Critical Care Nursing AND Diabetes Mellitus Type 2	4382	Years 5 Original scientific articles (Clinical trials). Free access. Unlimited language.	738	10	0	3	3	3	3
	Diabetes Mellitus type 2 AND treatment Adherence	98182		15953	9	0	2	2	2	2
	Diabetes Mellitus Type 2 AND Critical Care Nursing OR Treatment Adherence AND Compliance	740		223	9	0	2	2	2	2
	Diabetes Mellitus Type 2 AND Prevention	42029		740	8	0	3	3	3	3
LILACS	Critical Care Nursing AND Diabetes Mellitus Type 2	1	Years 5 Original scientific articles (Trials clinical) Free access. Unlimited language.	0	0	0	0	0	0	0
	Diabetes Mellitus type 2 AND treatment Adherence	38		32	7	0	3	3	3	3
	Diabetes Mellitus Type 2 AND Critical Care Nursing OR Treatment Adherence AND Compliance	1		1	1	0	1	1	1	1
	Diabetes Mellitus Type 2 AND Prevention	32		9	8	0	4	4	4	4
Electronic Library Online (SCIELO)	Critical Care Nursing AND Diabetes Mellitus Type 2	0		0	0	0	0	0	0	0
	Diabetes Mellitus type 2 AND treatment Adherence	51		4	2	0	1	1	1	1

	Diabetes Mellitus Type 2 AND Critical Care Nursing OR Treatment Adherence AND Compliance	0	Years 5 Original scientific articles (clinical trials). Free access. Unlimited language	0	0	0	0	0	0	0
	Diabetes Mellitus Type 2 AND Prevention	100		9	5	0	4	4	4	4
Virtual Health Library (VHL)	Critical Care Nursing AND Diabetes Mellitus Type 2	16	Years 5 Original scientific articles (Clinical trials). Free access. Unlimited language	30	10	0	2	2	2	2
	Diabetes Mellitus type 2 AND treatment Adherence	2250		1096	9	0	3	3	3	3
	Critical CareDiabetes Mellitus Type 2 AND Critical Care Nursing OR Treatment Adherence AND Compliance Nursing AND Diabetes Mellitus Type 4	19		12	10	0	3	3	3	3
	Diabetes Mellitus Type 2 AND Prevention	6762		123	14	0	3	3	3	3
Latindex	Critical Care Nursing AND Diabetes Mellitus Type 2	0	Years 5 Original scientific articles (Clinical trials). Free access. Unlimited language	0	0	0	0	0	0	0
	Diabetes Mellitus type 2 AND treatment Adherence	0		0	0	0	0	0	0	0
	Diabetes Mellitus Type 2 AND Critical Care Nursing OR Treatment Adherence AND Compliance	0		0	0	0	0	0	0	0
	Diabetes Mellitus Type 2 AND Prevention	0		0	0	0	0	0	0	0
Total		541 920		133 057	334	0	79	79	79	79

Table 2. Outcome of nursing strategies to improve adherence to treatment in patients with type 2 diabetes

MESH TERMS Anesthesiology, Burns, Anesthesia, and Analgesia

DESH TERMS Anesthesiology, Burns, Anesthesia and Analgesia

Search	URL	Search	Author	Original subject	Year	Type of study	Objective	Methodology	Results
Pubmed	https://pubmed.ncbi.nlm.nih.gov/35370933/	Critical Care Nursing AND Diabetes Mellitus Type 2	Li et al, 2022	The nursing effect of individualized management in patients with type 2 diabetes mellitus and hypertension.	2022	Quantitative - Experimental	To evaluate the effectiveness of health education and personalized management in patients with type 2 diabetes and hypertension, improving their control and quality of life.	Sixty-eight patients were divided into two groups: one group received routine care and the other received personalized care with specific education about the disease and medical management.	The group with personalized care showed significant improvements in glucose and blood pressure control, as well as reductions in anxiety and depression.

	https://pubmed.ncbi.nlm.nih.gov/37337624/	Critical Care Nursing AND Diabetes Mellitus Type 2	Zhou et al., 2023	Telecare needs and influencing factors in patients with type 2 diabetes mellitus: a cross-sectional study.	2023	Quantitative - Cross-sectional	The purpose of this research was to analyze the association between the need for tele-nursing services and the availability of community resources aimed at chronic disease management in people diagnosed with type 2 diabetes mellitus (DM2).	A cross-sectional study was designed with 586 patients with type 2 diabetes. Validated questionnaires were used to measure telehealthcare needs and community resources . Analyses of variance and multiple regression were performed following the STROBE checklist guidelines.	The main needs identified were safety, basic care, and emotional support. The mean score for community resources was 3,47 ± 0,02. The regression showed that multiple factors explained 79,6 % of the variance in demand for telecare.
	https://pubmed.ncbi.nlm.nih.gov/35351707/	Critical Care Nursing AND Diabetes Mellitus Type 2	Rosman et al., 2022	Individual goal-based plan based on nursing theory for adults with type 2 diabetes and self-care deficits: study protocol of a randomized controlled trial.	2022	Mixed design.	To evaluate the impact of a goal-based individual plan based on nursing theory on glycemic control, health-related quality of life, and the overall experience of living with diabetes in adults with type 2 diabetes.	This randomized controlled trial will use simple randomization to assign participants to groups. Assignments will be prepared in opaque envelopes by an uninvolved person. Data on sociodemographic factors and diabetes-related health parameters will be collected from the Swedish National Diabetes Register.	The main outcome measure will be hba1c levels, assessed by capillary electrophoresis, expressed in mmol/mol according to the IFCC standard. The study will also collect comprehensive data on participants' health status, including comorbiditiese s and treatment regimens.
	https://pubmed.ncbi.nlm.nih.gov/34805063/	Diabetes Mellitus type 2 AND treatment Adherence		Medication adherence and associated factors in patients with type 2 diabetes: a structural equation model.	2021	Quantitative -cross-sectional -explanatory	To explore the prevalence of medication adherence and associated factors in patients with type 2 diabetes (T2DM).	A cross-sectional study was conducted with 483 patients diagnosed with DT2, using various questionnaires to collect data between July and December 2020. Medication Adherence and Associated Factors in Patients with Type 2 Diabetes: An Equation Model	The study revealed that 63,1 % of patients adhered to medication. Social support and self-efficacy directly influenced adherence, whereas neuroticism had an indirect effect.
	https://pubmed.ncbi.nlm.nih.gov/38385845/	Diabetes Mellitus Type 2 AND Critical Care Nursing OR Treatment Adherence AND Compliance	Yildirim et al., 2024	Fear of hypoglycemia, treatment adherence and quality of life in patients with diabetes type 2 and their determinants	2024	Descriptive -cross-sectional	To explore how fear of hypoglycemia is related to treatment adherence and quality of life in people with type 2 diabetes, as well as to identify the main factors	This is a descriptive, cross-sectional study of 1060 outpatients with DM2. Validated instruments were applied : HFS for fear of hypoglycemia, treatment adherence scale, and	Fear of hypoglycemia was positively associated with age, diabetes duration, and adherence, and negatively with quality of life. The regression model explained 38,1 % of the variability in perceived quality of life.

							that influence these interrelated variables.	EQ-5D-5L to assess quality of life between January and July 2022.	
Cambridge Core	https://www.cambridge.org/core/journals/primary-health-care-research-and-development/article/acceptability-and-for-type-2-diabetes-in-primary-care-qualitative-interview-study-with-patients-and-healthcare-providers/3	Care Nursing AND Diabetes Mellitus Type 2	Mcgowan,2021	Acceptability and experience of a personalized proteomic risk intervention for type 2 diabetes in primary care.	2021	Qualitative- cross-sectional.	To explore the acceptability of a personalized proteomic risk intervention for patients at high risk for type 2 diabetes and their health care providers.	Semi-structured interviews with 17 patients and 4 health care providers in primary care in the north of England.	The intervention was generally accepted and the experience was positive. The personalized nature of the report was appreciated, especially in the way it provided a holistic approach to risk.
	https://www.cambridge.org/core/journals/primary-health-care-research-and-development/article/general-practitioner-and-nurse-in-primary-care-a-qualitative-review-in-aotearoa-new-zealand/	Critical Care Nursing AND Diabetes Mellitus Type 2	Menezes et al., 2022	Experiences of general practitioners and nurses in the management and prescribing of type 2 diabetes in primary care in New Zealand.	2022	Qualitative- cross-sectional	To explore the views of general practitioners and nurses on the management of type 2 diabetes, including the use of newly funded medications in New Zealand and perceived barriers to providing optimal care.	Qualitative review based on interviews with health professionals in primary care.	Barriers and facilitators in the management of type 2 diabetes were identified, including challenges in prescribing new medications and the need for additional support.
	https://www.cambridge.org/core/journals/disaster-medicine-and-public-health-preparedness/care-demand-procrastination-behavior-among-earthquake-victims-with-type-2-diabetes-in-earthquake-zone/8278CB12886169C823B92651BD0A7F1C	Diabetes Mellitus type 2 AND treatment Adherence	Ceylan et al.,2025	Diabetes self-management and procrastination behavior in health care demand among earthquake victims with type 2 diabetes	2025	Quantitative-experimental	To assess diabetes self-management and procrastination behaviors in health care demand among earthquake victims with type 2 diabetes.	A descriptive study was conducted with 202 people with type 2 diabetes living in 7 different container cities in Hatay, Türkiye. Data were collected through face-to-face interviews using introductory information forms, the Diabetes Self-Management Scale and the Procrastination in Health Care Demand Scale.	Diabetes self-management among earthquake victims with type 2 diabetes was low. It was also determined that participants' health care demand procrastination behaviors were at a moderate level
	https://www.cambridge.org/core/journals/european-psychiatry/	Diabetes Mellitus type 2 AND treatment Adherence	Massano-Cardoso et al.,2020	Predictors of treatment adherence in type 2 diabetes mellitus	2020	Quantitative - cross-sectional	Quantitative, cross-sectional Objective: To identify predictors of therapeutic adherence in patients with type 2 diabetes.	188 patients in diabetology consultations in Portugal were evaluated, using self-report questionnaires to measure adherence to treatment and related variables	Factors influencing adherence were identified, providing valuable information to improve treatment strategies in patients with type 2 diabetes.

	https://www.cambridge.org/core/journals/british-journal-of-nutrition/article/abs/educational-intervention-based-on-the-extended-parallel-process-model-improves-adherence-	Diabetes Mellitus type 2 AND treatment Adherence	Noori et al., 2024	Educational intervention based on the extended parallel process model improves diabetic dietary adherence and glycemic control rates	2024	Quantitative - cross-sectional	To evaluate the effectiveness of an educational intervention based on the extended parallel process model in improving dietary adherence and glycemic control in patients with type 2 diabetes.	Patients with type 2 diabetes were randomly assigned to intervention and control groups, and changes in dietary adherence and blood glucose levels were measured	Educational intervention significantly improved adherence to diet and rates of glycemic control compared to control group
	https://www.cambridge.org/core/journals/advances-in-psychiatric-treatment/article/cognitive-and-behavioural-approaches-to-medication-adherence/	Diabetes Mellitus type 2 AND treatment Adherence	Scott et al., 2020	Cognitive and Behavioral Approaches to Medication Adherence	2020	Quantitative-experimental	To explore how interventions based on cognitive and behavioral approaches can improve medication adherence in patients with severe mental disorders.	Review of existing literature on cognitive and behavioral interventions applied to medication adherence.	We identified several effective strategies, such as compliance therapy and cognitive education, that were shown to improve medication adherence in patients with severe mental disorders.
	https://www.cambridge.org/core/journals/proceedings-of-the-nutrition-society/article/nutrition-interventions-for-the-prevention-of-type-2-diabetes/84A4B8F274EB711C90F5F6D8F473AE85	Diabetes Mellitus Type 2 AND Prevention	Noakes et al.,2020	Nutritional interventions to prevent type 2 diabetes.	2020	Qualitative - cross-sectional	To evaluate the efficacy of nutritional interventions in the prevention of type 2 diabetes.	Review of existing studies on dietary interventions and their impact on the prevention of type 2 diabetes.	Nutritional interventions, especially those that promote a balanced diet and weight loss, are effective in reducing the risk of developing type 2 diabetes.
	https://www.cambridge.org/core/journals/public-health-nutrition/article/reducing-the-risk-of-type-2-diabetes-with-nutrition-and-physical-activity-efficacy-and-implementation-of-lifestyle-interventions-in-finland/	Diabetes Mellitus Type 2 AND Prevention	Lindström et al.,2021	Effectiveness and implementation of lifestyle interventions to reduce the risk of type 2 diabetes in Finland.	2021	Quantitative-experimental	To analyze the efficacy and implementation of nutrition and physical activity based interventions to prevent type 2 diabetes.	Evaluation of intervention programs in Finland that combine dietary changes and increased physical activity.	Lifestyle interventions that include dietary improvements and increased physical activity are effective in reducing the risk of developing type 2 diabetes.
	https://www.cambridge.org/core/journals/proceedings-of-the-nutrition-society/article/diabetes-prevention-diabetes-challenges-and-opportunities/	Diabetes Mellitus Type 2 AND Prevention	O'Reilly et sl.,2024	Prevention of type 2 diabetes after gestational diabetes.	2024	Quantitative-narrative	To explore the challenges and opportunities in the prevention of type 2 diabetes in women who have had gestational diabetes.	Review of studies on postpartum interventions to prevent progression to type 2 diabetes.	Interventions targeting women with a history of gestational diabetes are crucial to prevent the onset of type 2 diabetes, although there are challenges in their implementation.

	https://www.cambridge.org/core/journals/primary-health-care-research-and-development/article/development-of-a-groupbased-diabetes-education-model-for-migrants-with-type-2-diabetes-living-in-sweden/5A1E3D9E7B1C4A6A9D3D9E9E7B1C4A6A	Diabetes Mellitus Type 2 AND Prevention	Hadziadic et al.2020	Development of a group-based educational model for migrants with type 2 diabetes in Sweden.	2020	Descriptive-narrative	Create a culturally adapted educational model to improve self-care in migrants with type 2 diabetes.	Design of an educational program based on individual beliefs, knowledge and risk awareness, implemented in group sessions.	The culturally adapted educational model improved diabetes knowledge and promoted self-care behaviors among participants.
	https://www.cambridge.org/core/journals/public-health-nutrition/article/diet-nutrition-and-the-prevention-of-type-2-diabetes/	Diabetes Mellitus Type 2 AND Prevention	Bennett et al.,2021	Relationship between diet, nutrition, and prevention of type 2 diabetes.	2021	Quantitative, narrative	To analyze how diet and nutrition influence the prevention of type 2 diabetes.	Review of epidemiological and clinical studies on dietary patterns and risk of type 2 diabetes.	Healthy dietary patterns, such as consumption of whole grains, fruits, vegetables, and healthy fats, are associated with a lower risk of developing type 2 diabetes.
	https://www.cambridge.org/core/journals/epidemiology-and-psychiatric-sciences/article/depression-and-treatment-nonadherence-in-type-2-diabetes-assessment-issues-and-an-integrative-treatment-approach/	Diabetes Mellitus Type 2 AND Prevention	Gonzalez et al., 2020	Depression and treatment nonadherence in type 2 diabetes: assessment issues and an integrative treatment approach.	2020	Quantitative, mixed approach	To explore the relationship between depression and treatment nonadherence in patients with type 2 diabetes, and to propose an integrative approach to address both conditions.	Review of the existing literature on depression in patients with type 2 diabetes and its impact on treatment adherence.	Depression is associated with poorer treatment adherence in patients with type 2 diabetes. An integrative approach combining psychological and medical interventions is proposed to improve adherence and disease control.
Scopus	https://link.springer.com/article/10.1007/s13410-024-01331-7	Diabetes Mellitus type 2 AND treatment Adherence	Becerra et al ., 2024	Relationship between quality of life and treatment adherence in Mexican patients with type 2 diabetes.	2024	Quantitative-descriptive	To evaluate the effects of pharmacist-led interventions on medication adherence and glycemic control in patients with type 2 diabetes.	Non-experimental, descriptive, cross-sectional study. Using non-probability purposive sampling, Mexican adults with type 2 diabetes mellitus (DM2) were recruited from a public health clinic located in the municipality of Gustavo A. Madero, Mexico City. Inclusion criteria were: being older than 18 years, being a patient attended at the hospital, and having been diagnosed with DM2 at least 6 months prior to this study. Patients with type 1 diabetes	The results of the meta-analysis showed that pharmacist-led interventions significantly improved medication adherence and glycemic control in patients with type 2 diabetes.

							mellitus diagnosed with any psychological or psychiatric disorder reported in their medical record were excluded. Also, those who responded less than 90 % of the screening tests were eliminated.	
https://link.springer.com/content/pdf/10.1186/s12902-025-01855-x.pdf?utm_source=mendeley	Diabetes Mellitus Type 2 AND Prevention	Al-Rawaf et al., 2025	Correlation between circulating micrornas and vascular biomarkers in type 2 diabetes according to physical activity: a biochemical analytical study.	2025	Quantitative-observational	To investigate how physical activity (PA) might affect the expression of several micrornas, specifically mir-126, mir-146a, mir-34a, mir-124a, mir-155 and mir-221, in the blood of older people with type 2 diabetes (T2D).	This observational correlational study involved 100 male participants, aged 18-65 years, all of whom had been living with type 2 diabetes (T2D) for more than six years. Participants were divided into three groups: inactive, moderate and active, according to their level of physical activity (PA).	The expression levels of mir-146a, mir-34a and mir-124a were significantly higher in patients with higher physical activity, whereas no such increase was observed for the other mirnas in less active participants.
https://link.springer.com/content/pdf/10.1186/s12944-025-02473-1.pdf?utm_source=mendeley	Diabetes Mellitus Type 2 AND Prevention	Li, Y., Guo, X., Ge, J., Geng, S. Liu, Y 2025	Sex differences in the associations of metabolic inflammation and insulin resistance with the incidence of type 2 diabetes mellitus: a retrospective cohort of adults with annual health examinations.	2025	Quantitative-experimental	To investigate sex-specific associations between metabolic inflammation and insulin resistance with the incidence of DM2 to support personalized prevention and treatment strategies	A retrospective cohort was used to analyze annual health examination data from the department of general medicine of a general hospital in Shanghai between 2021 and 2023. After excluding participants with an initial diagnosis of DM2, cardiovascular disease, or chronic kidney disease, 1214 adults were followed up for 2 years	In the total population, tyg-IMC (all HR/OR > 1, P < 0,05), LHR, MHR and NHR were significantly and positively associated with the incidence of T2DM. Tyg-IMC was significantly associated with the incidence of T2DM in men (both HR/OR > 1, P < 0,05), whereas LHR, MHR and NHR were strongly associated with the incidence of T2DM in women (all HR/OR > 1, P < 0,05). The interaction effect between LHR and sex was statistically significant.
https://www.sciencedirect.com/science/article/pii/S2590113323000160	Diabetes Mellitus Type 2 AND Prevention	Suprapty et al., 2023	Prevalence of medication adherence and glycemic control among patients with type 2 diabetes and influencing factors: A cross-sectional study.	2023	Quantitative - cross-sectional	The cross-sectional study was conducted in patients with type 2 diabetes in Surabaya, Indonesia, using the Brief Medication Questionnaire to	The cross-sectional study used purposive sampling and was conducted in patients with type 2 diabetes, measuring adherence with the	A total of 321 patients with a median age of 61 years participated, 53,3 % were female and 77,3 % had high school or higher education. The median duration of diabetes was 8 years.

							measure adherence and glycosylated hemoglobin (A1C) levels to assess glycemic control. Binary logistic regression was used to identify associated factors.	Brief Medication Questionnaire and glycemic control by glycosylated hemoglobin (A1C) levels, and binary logistic regression was used for statistical analysis.	
Sciencie Direct	https://www.sciencedirect.com/org/science/article/pii/S2562760025000067	Critical Care Nursing AND Diabetes Mellitus Type 2	Alsahli M , Abd-alrazaq A et al ., 2025	Effectiveness of patient education and telehealthcare follow-up on self-care practices in patients with diabetes mellitus: a cross-sectional, quasi-experimental study.	2025	Quantitative-descriptive	This study aims to examine the impact of patient education and telehealthcare follow-ups on self-care indicators among patients with type I and type II diabetes mellitus (DM).	In phase I, a descriptive cross-sectional analysis was conducted to assess the self-care practices of 400 patients with DM at Kafr El Sheikh University Hospital in Egypt. In phase II, a pretest-posttest experiment was applied with a selected group of 100 patients purposively recruited from phase I due to their low knowledge of self-care practice to determine the impacts of a 4-week intervention delivered by telepharmacy	Had a mean age of 49,7 (SD 11.5) years. More than one-earlier (135/400, 33,8 %) and were obese (147/400, 36,8 %). Almost half (176/400, 44 %) received insulin, and most had heart disease (231/400, 57,7 %) and symptom of elevated fasting blood sugar levels (365/400, 91,3 %). A relatively high DM knowledge score (255/400, 63,7 %) was reported. of knowledge (102/200, 51 %) compared with women (153/200, 76,5 %; P < 0,001). The intervention was effective in improving DM knowledge (t 99 = 30,7, two-tailed; P < 0,001), self-care practices (t 99 = 53,7, two-tailed; P < 0,001) and self-care skills (t 99 = 47, two-tailed; P < ,001) among patients with DM.
	https://www.sciencedirect.com/science/article/abs/pii/S0882596324002732	Critical Care Nursing AND Diabetes Mellitus Type 2	Nursel Cengiz et al., 2024	Assessment of the relationship between self-care agency and quality of life in adolescents with type 1 diabetes mellitus during the COVID-19 pandemic.	2024	Quantitative - descriptive-correlational.	To explore the relationship between self-care autonomy and quality of life in adolescents with type 1 diabetes mellitus (DM1) during the pandemic.	This descriptive-correlational study was conducted from January 1 to December 31, 2022. The study population consisted of 186 adolescents aged 13-16 years with type 1 diabetes mellitus (DM1) attending a pediatric endocrinology clinic at a Training and Research Hospital in the capital of Turkey.	The study revealed that adolescents with greater autonomy in self-care reported significantly better quality of life. In addition, significant correlations were observed between autonomy in self-care and adherence to pandemic measures, dietary adjustments, hygiene practices, challenges in diabetes management, family communication, sleep duration, dietary patterns, and difficulties in exercise (p < 0,05).

	https://www.sciencedirect.com/science/article/pii/S2590113323000160	Diabetes Mellitus type 2 AND treatment Adherence	Sarki et al., 2023	Evaluation of the prevalence of treatment adherence and glycemic control in patients with type 2 diabetes, as well as factors influencing this adherence.	2023	Quantitative - cross-sectional	To determine the prevalence of treatment adherence in patients with type 2 diabetes, the level of glycemic control, and the associated factors affecting adherence.	Cross-sectional design, structured questionnaires were applied to a sample of patients with type 2 diabetes.	A significant proportion of patients showed low adherence to treatment was directly related to better glycemic control (hba1c).
	https://www.sciencedirect.com/science/article/pii/	Diabetes Mellitus type 2 AND treatment Adherence	Mohammadreza Kordbagheri et al., 2024	The mediating role of psychological well-being in the relationship between personality light triad and sense of concordance with treatment adherence in patients with type 2 diabetes: a network analysis and structural equation modeling study	2024	Quantitative-correlational	To investigate the intricate relationship between treatment adherence, the light triad of personality, self-coherence, and psychological well-being in people diagnosed with type 2 diabetes mellitus (DM2).	A path analysis and network analysis study was conducted using convenience sampling by recruiting 412 patients with type 2 diabetes from ten private practices and general hospitals in Gilan province, Iran. Data collection used Antonovsky's Self-Coherence Scale (SOC), Light Triad Rating Scale and Reef's Psychological Well-Being Questionnaire. Structural equation modeling assessed model fitness and determined direct and indirect relationships between variables. The analysis was performed with R-Studio (version 4.2.1), SPSS (v.26) and AMOS (v.24) software.	Confirmatory factor analysis and network analysis confirmed the trifactorial structure of the Light Personality Triad scale. Direct effects of the Light Personality Triad ($\beta = 0,34$, $p < 0,001$) and self-coherence ($\beta = 0,32$, $p < 0,001$) on treatment adherence were observed. Psychological well-being indirectly influenced this relationship, with significant effects of Light Personality Triad ($\beta = 0,25$, $p < 0,001$) and self-coherence ($\beta = 0,08$, $p < 0,001$) on treatment adherence. Exploratory bootstrap graph analysis revealed an average of three within-network dimensions, indicating community structures.
	https://www.sciencedirect.com/science/article/pii/	Diabetes Mellitus Type 2 AND Critical Care Nursing OR Treatment Adherence AND Compliance	Miguel Garcia Villarino et al., 2025	Impact of frequency of general practitioner consultations on disease management in patients with type 2 diabetes mellitus.	2025	Quantitative observational	We investigated the association between the frequency of visits to general practitioners and the degree of disease control in patients with DM2.	This study included patients with a diagnosis of DM2 who consulted with their general practitioner between 2014 and 2018. A total of 89 674 patients were included, representing 1,203,035 consultations. Different clinical characteristics were analyzed, such	The median age of the patients was 70 years, with 52,8 % being male. An increase in the number of annual visits significantly improves the likelihood of achieving multifactorial control of diabetes. Patients with more than 3 annual visits (55,6 %) have a relative risk (RR) of 1,258

							as glycosylated hemoglobin (hba1c%), blood pressure (BP) and c-LDL levels. Multifactorial control of DM2 was defined as hba1c ≤ 7 %, BP ≤ 140/90 mmhg and LDL-cholesterol ≤ 100 mg/dl. Generalized Estimating Equation models were implemented to manage repeated measurements in the same patient.	(95 % confidence interval: 1,120-1,414). Frequent visits are associated with better multifactorial control and better c-LDL management. Patients who visit more than 3 times per year tend to achieve better results in multifactorial and c-LDL control.
https://www.sciencedirect.com/science/article/abs/pii/	Diabetes Mellitus Type 2 AND Critical Care Nursing OR Treatment Adherence AND Compliance	Yi Wu ,Hong Cao et al., 2025	Patient compliance as a mediator between disease perceptions and quality of life among Chinese geriatric patients with type 2 diabetes mellitus: a cross-sectional study.	2025	Quantitative-observational-analytic.	To explore the mediated role of patient compliance between disease perceptions and quality of life in Chinese geriatric patients with type 2 diabetes mellitus.	A cross-sectional study was conducted involving 302 geriatric patients with type 2 diabetes mellitus. The mediated effects model was employed to investigate the link between disease perception, patient compliance, and quality of life.	A strong positive relationship was observed between disease perception and quality of life (r = 0,784, p < 0,001), but a significantly negative correlation with compliance (r = -0,618, p < 0,001). There was a substantial negative association between compliance and quality of life (r = -0,678, p < 0,001). Therapeutic compliance mediated the influence of the perception of disease on quality of life, accounting for 22,62 % of the overall effect.
https://www.sciencedirect.com/org/science/article/pii/S143888712500531X	Diabetes Mellitus Type 2 AND Critical Care Nursing OR Treatment Adherence AND Compliance	Irene Caballero Mateos et al., 2025	Efficacy of a digital educational intervention for patients with type 2 diabetes mellitus: a multicenter, randomized, prospective, 6-month follow-up study.	2025	Quantitative-prospective	We evaluated the efficacy of a digital educational intervention for patients with DM2, expressed as changes in glycosylated hemoglobin (hba 1c) and body composition and response assessment using validated health professional satisfaction questionnaires),	This multicenter, randomized, prospective study included adults with type 2 diabetes mellitus and poor metabolic control who initiated treatment with glucagon-like peptide-1 receptor agonists. Patients were randomly assigned to digital intervention or usual care.	Eighty-five patients were included (control: n = 41; intervention: n = 44). Both groups were matched for demographic data, physical examination, insulin and biochemical parameters. A reduction in body weight was observed (intervention: -8,7; SD 6,1 kg vs. Control: -4,9; SD 5,0 kg; t83 = -3,13; p = 0,002),

						Diabetes Knowledge of Diabetes Scale (ECODI) and adherence to treatment during 6 months of follow-up.	The intervention group received education through social networking and digital tools in a structured program of healthy lifestyle changes. This was provided by a "Digital Coach" who offered weekly, on-demand counseling and individualized support. Demographic, clinical, adherence and quality of life data were collected, both at baseline and during follow-up.	BMI (intervention: -3,0; SD 2,1 kg/m² vs. Control : -1,8; SD 1,8 kg/m² ; t83 = -2,82; p = 0,006) and fast muscle mass in both groups, but higher in the intervention group.
	https://www.sciencedirect.com/science/article/abs/pii/S2212555824002370	Diabetes Mellitus Type 2 AND Prevention	Yukiko Sakamoto et al., 2025	Analysis of the impact of periodontal disease management before the onset of type 2 diabetes mellitus on medical costs using an administrative claims database.	2025	Quantitative-observational	To examine the association between periodontal disease management before the onset of type 2 diabetes mellitus and medical costs.	We extracted information on periodontal disease treatment status from Japanese medical claims and specific medical checkup databases of 4010 patients with periodontal disease and type 2 diabetes mellitus, aged 30 years or older, who had continued treatment for 2 years after the onset of diabetes. We divided the patients into two groups: those who had received treatment for 2 years before and 2 years after the onset of diabetes, and those who had only received treatment for 2 years after the onset of type 2 diabetes mellitus.	The hba1c level in patients without periodontal disease treatment during the year of diabetes onset improved by 0,13 % in men and 0,24 % in women 2 years later, while in the periodontal disease treatment group it improved by 0,49 % and 0,74 %, respectively. Medical costs were significantly lower in the group with periodontal disease treatment two years later than in the group without periodontal disease treatment.

	https://www.sciencedirect.com/science/article/abs/pii/S0939475325001176	Diabetes Mellitus Type 2 AND Prevention	Zailing Xing et al., 2025	Optimal sex-specific cutoff points for metabolic health indicators to predict the incidence of type 2 diabetes mellitus.	2025	Quantitative-experimental	To determine optimal cutoff points for metabolic health indicators, including insulin resistance (IR), glucose, insulin, BMI, and waist circumference, in middle-aged non-diabetic individuals to predict future diabetes mellitus type 2 (DM2).	Data came from 12 543 participants in the Atherosclerosis Risk Communities Study, including 5758 men and 6785 women. They did not have diabetes at baseline and were followed up for incident T2DM within 3, 6, and 9 years. IR was estimated using four IR metrics: HOMA-IR, METS-IR, tyg index, and TG/HDL-C. We used Youden's index to determine optimal cut-off values.	In women, cutoff points for glucose to predict incident T2DM ranged from 96 to 102 mg/dl, with Area Under the Curve (AUC) values of 0,64 to 0,85. In men, cutoff points ranged from 102 to 106 mg/dl, with AUC values of 0,60 to 0,83. For HOMA-IR, cut-off points in women ranged from 2,4 to 3,2, with AUC values from 0,69 to 0,78, while in men they ranged from 2,8 to 3,2. The optimal cut-off values for METS-IR, tyg index, TG/HDL-C, insulin, BMI and waist circumference were 40-43, 8,6-8,9, 2,0-3,2, 9-15 μu/ml, 28-29 kg/m² and 91-97 cm in women, and 44-45, 8,8-8,9, 2,9-3,2, 11-12 μu/ml, 27-29 kg/m² and 99-103 cm in men.
	https://www.sciencedirect.com/science/article/abs/pii/S019745722500134X	Diabetes Mellitus Type 2 AND Prevention	Ting Yao MNS et al., 2025	The mediating role of expectations regarding aging between diabetes distress and self-management behaviors in older adults with type 2 diabetes mellitus.	2025	Quantitative-cross-sectional	To investigate the relationships between diabetes distress, expectations regarding aging, and self-management behaviors in older adults with type 2 diabetes mellitus.	In this cross-sectional study, we surveyed 257 patients older than 60 years with type 2 diabetes mellitus using the Diabetes Distress Scale, the Expectations Regarding Aging Scale (21 items), and the Diabetes Self-Care Scale. We performed correlation and mediation analyses with SPSS 26.0 and PROCESS software.	Diabetes distress was negatively associated with diabetes self-management and expectations about aging. Expectations about aging were positively associated with diabetes self-management. Expectations about aging partially mediated the relationship between diabetes distress and self-management.
JAMA	https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2810130	Critical Care Nursing AND Diabetes Mellitus Type 2	Weinstock et al., 2023	Adherence to antihypertensive and lipid-lowering medications in young adults with juvenile-onset type 2 diabetes.	2023	Quantitative-experimental	To assess adherence rates to blood pressure and lipid-lowering medications in young adults with juvenile-onset type 2 diabetes and factors associated with low adherence.	Analysis of data from the TODAY2 study, which included 243 participants with juvenile-onset type 2 diabetes	We found that 80,1 % of participants with hypertension or nephropathy and 93,8 % with dyslipidemia had low medication adherence.

https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2800838	Critical Care Nursing AND Diabetes Mellitus Type 2	Liu et al ., 2023	Adherence to a healthy lifestyle and its association with microvascular complications in adults with type 2 diabetes.	2023	Quantitative-experimental	To assess the relationship between adherence to a healthy lifestyle before and after diagnosis of type 2 diabetes and the risk of developing microvascular complications.	Data analysis of two prospective cohorts: Nurses' Health Study (NHS) and Health Professionals Follow-Up Study (HPFS). Included 7077 participants with newly diagnosed type 2 diabetes.	It was observed that greater adherence to a healthy lifestyle, both before and after the diagnosis of diabetes, was associated with a lower risk of microvascular complications, including neuropathy, retinopathy, nephropathy, and foot disorders.
https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2817292	Critical Care Nursing AND Diabetes Mellitus Type 2	Trief et al., 2024	Psychosocial factors associated with glycemic control in young adults with juvenile-onset type 2 diabetes.	2024	Quantitative-cohort	To identify psychosocial factors associated with hemoglobin A1c (hba1c) levels in young adults with juvenile-onset type 2 diabetes.	Data analysis of 348 participants with hba1c measurements at two time points: baseline (T1) and 12 months (T2). Psychosocial factors such as medication beliefs, diabetes distress, self-efficacy, self-care support, and unmet material needs were assessed.	It was found that positive beliefs about the need for medications, medication concerns, diabetes distress and low self-care support were associated with higher hba1c levels. On the other hand, higher self-efficacy and self-care support were associated with better hba1c levels.
https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2828487	Critical Care Nursing AND Diabetes Mellitus Type 2	Smith et al,2025	Aerobic exercise and weight loss in adults with type 2 diabetes.	2025	Quantitative-experimental	To evaluate the impact of aerobic exercise and weight loss on reducing medication use among adults with type 2 diabetes.	Randomized clinical trials comparing aerobic exercise interventions and weight loss with control groups in adults with type 2 diabetes were included.	The meta-analysis found that aerobic exercise and weight loss were associated with a modest reduction in medication use among patients with type 2 diabetes.
https://jamanetwork.com/journals/jama/fullarticle/2783414	Critical Care Nursing AND Diabetes Mellitus Type 2	Barry et al, 2021	U.S. Preventive Services Task Force (USPSTF) recommendations on screening for prediabetes and type 2 diabetes.	2021	Desceiptive-Cross-sectional	To provide updated recommendations on screening for prediabetes and type 2 diabetes in asymptomatic adults.	The USPSTF reviewed the existing evidence on the benefits and harms of screening for prediabetes and type 2 diabetes, as well as early interventions in asymptomatic adults	The USPSTF recommends screening for prediabetes and type 2 diabetes in adults aged 35 to 70 years who are overweight or obese. Early detection may allow interventions that prevent or delay progression to type 2 diabetes.

https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2809969	Critical Care Nursing AND Diabetes Mellitus Type 2	Ben et al ., 2023	Evaluation of a mobile health intervention delivered by clinical pharmacists and health coaches to improve hemoglobin A1c levels in African American and Latino adults with type 2 diabetes.	2023	Quantitative-Experimental	To determine whether a mobile health intervention delivered by clinical pharmacists and health coaches can improve hemoglobin A1c levels in African American and Latino adults with type 2 diabetes.	We studied 221 patients with type 2 diabetes and elevated hemoglobin A1c levels who were randomly assigned to receive a mobile health intervention or standard care for 12 months.	The mobile health intervention significantly reduced hemoglobin A1c levels by 0,79 percentage points at compared with 0,24 points in the control group, and the improvement was sustained for 24 months.
https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2800819	Diabetes Mellitus type 2 AND treatment Adherence	Gonzales et al, 2023	Continuity of medication use by U.S. adults with diabetes, 2005-2019	2023	Quantitative-cross-sectional	To assess continuity in medication use among US adults with diabetes during 2005-2019.	Analysis of national survey data to determine patterns of continued medication use in patients with diabetes.	We observed that suboptimal medication adherence among people with type 2 diabetes was associated with preventable complications and the occurrence of serious illness.
https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2828868	Diabetes Mellitus type 2 AND treatment Adherence	Schinipper et al, 2025	Clinical Decision Support and Cardiometabolic Medication Adherence	2025	Quantitative-clinical	To evaluate the impact of a clinical decision support system on adherence to cardiometabolic medications in adults with type 2 diabetes.	Implementation of electronic alerts for health professionals and medication adherence monitoring in patients with type 2 diabetes.	Clinical decision support intervention improved adherence to cardiometabolic medications compared to usual care.
https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2810130	Diabetes Mellitus type 2 AND treatment Adherence	Weinstock et al,2023	Adherence to antihypertensive and lipid-lowering medications in young adults with juvenile-onset type 2 diabetes	2023	Quantitative-randomized	To assess adherence to antihypertensive and lipid-lowering medications in young adults with youth-onset type 2 diabetes.	Follow-up of 243 participants with youth-onset type 2 diabetes, assessing medication adherence using pill counts and questionnaires.	Low adherence to antihypertensive and lipid-lowering medications was found, associated with medication concerns and unmet social needs.
https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2800838	Diabetes Mellitus type 2 AND treatment Adherence	Zhou et al., 2023	Adherence to a healthy lifestyle in association with microvascular complications in adults with type 2 diabetes.	2023	Quantitative-cohort	To examine the association between adherence to a healthy lifestyle and microvascular complications in adults with type 2 diabetes.	Analysis of data from 7,758 adults with type 2 diabetes, assessing adherence to healthy lifestyle factors and incidence of microvascular complications.	Greater adherence to a healthy lifestyle was associated with a lower risk of developing microvascular complications in adults with type 2 diabetes.

	https://jamanetwork.com/journals/jama/fullarticle/2813763	Diabetes Mellitus type 2 AND treatment Adherence	Rubin et al 2023	Alarming number of patients stop taking second-line medications for type 2 diabetes mellitus.	2023	Quantitative-experimental	To highlight the high dropout rate of second-line medications for type 2 diabetes and discuss the clinical implications.	Analysis of prescribing and follow-up data of patients with type 2 diabetes who initiated second-line therapies.	We identified that a significant number of patients with type 2 diabetes discontinue use of second-line medications, highlighting the need for prescribing and patient support approaches that maximize adherence to treatment
	https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2828645	Diabetes Mellitus Type 2 AND Critical Care Nursing OR Treatment Adherence AND Compliance	Cheng et al, 2025	Integrated family support in type 2 diabetes self-care.	2025	Quantitative-experimental	To assess the impact of family support on self-care management and treatment adherence in patients with uncontrolled type 2 diabetes.	Analysis of multiple studies integrating family support interventions into self-care programs for patients with type 2 diabetes.	Family support was found to significantly improve treatment adherence and glycemic control in patients with type 2 diabetes.
	https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2809969	Diabetes Mellitus Type 2 AND Critical Care Nursing OR Treatment Adherence AND Compliance	Fisher et al, 2023	Mobile health intervention in African American and Latino patients with type 2 diabetes.	2023	Qualitative- cross-sectional	To evaluate the effectiveness of a mobile health intervention on glycemic control in African American s and Latino adults with type 2 diabetes.	Implementation of a mobile application for diabetes self-management, with tracking of participants' hba1c levels.	Participants using the mobile health intervention showed significant improvements in hba1c levels compared to the control group.
	https://jamanetwork.com/journals/jama/fullarticle/2783414	Diabetes Mellitus Type 2 AND Prevention	Devidson et al, 2021	USPSTF recommendations for screening for prediabetes and type 2 diabetes.	2021	Qualitative - cross-sectional	USPSTF Recommendations for Screening for Prediabetes and Type 2 Diabetes	The present research conducted a review of evidence and formulation of recommendations by the U.S. Preventive Services Task Force in order to gather sufficient data to develop the topic.	After several research results, the author refers and recommends screening for prediabetes and type 2 diabetes in adults aged 35 to 70 years with overweight or obesity.
Redalyc	https://www.redalyc.org/	Critical Care Nursing AND Diabetes Mellitus Type 2	Santos et al., 2024	Nurse-led programs focused on social support for people with type 2 diabetes mellitus: an exploratory review.	2024	Quantitative - cross-sectional	The objective was to map programs focused on social support for people with type 2 diabetes, emphasizing the role of nursing interventions in self-care.	It included an exploratory review following Joanna Briggs' guidelines, using specific search descriptors and databases to identify relevant studies published in the last decade.	They showed that most of the nurse-led programs were implemented in developed countries, targeting mainly women with low educational attainment, which highlights the need for further research.

	https://www.redalyc.org/articulo.oa?id=74155410003	Critical Care Nursing AND Diabetes Mellitus Type 2	Soto et al., 2023	Hospital environment, family functioning and active coping as predictors of adherence to pharmacological treatment in patients with type 2 diabetes mellitus.	2023	Cross-sectional-Descriptive	The objective was to study adherence to pharmacological treatment in patients with type 2 diabetes, focusing on the psychological, social and environmental factors that influence it.	It included a descriptive cross-sectional study, which used self-reported data and specific scales to measure adherence, doctor-patient relationship and family functioning.	They revealed that adherence was significantly influenced by family functioning, active coping strategies, and the quality of the patient-physician relationship, highlighting the need for supportive interventions.
	https://www.redalyc.org/	Critical Care Nursing AND Diabetes Mellitus Type 2	Lopez et al,2021	Nursing interventions in the glycemic control of patients with type 2 diabetes in intensive care units.	2021	Quantitative-Descriptive	To evaluate the effectiveness of nursing interventions in the control of blood glucose levels in patients with type 2 diabetes admitted to intensive care units.	A descriptive quantitative study was conducted in an intensive care unit of a tertiary hospital. Data were collected from 100 patients with type 2 diabetes, analyzing the nursing interventions applied and blood glucose levels during their stay in the ICU.	Nursing interventions, such as frequent glucose monitoring, appropriate insulin administration, and patient education, contributed significantly to glycemic control in patients with type 2 diabetes in the ICU. A reduction in hyperglycemia-related complications and improved clinical outcomes were observed.
	https://www.redalyc.org/90/69060005008/html/	Diabetes Mellitus type 2 AND treatment Adherence	Guamán, 2021	Identification of factors affecting adherence to treatment in patients with DM2 in a health center in Ecuador.	2021	Qualitative - cross-sectional	To assess medication adherence among outpatients with type 2 diabetes and determine the level of glycemic control in this population.	A cross-sectional study was conducted in which data were collected from outpatients with type 2 diabetes. A structured questionnaire was used to assess medication adherence and glycosylated hemoglobin (hba1c) levels were measured to determine glycemic control.	The study found that a significant proportion of patients had low medication adherence, which was associated with poor glycemic control. Factors such as duration of disease, complexity of the therapeutic regimen, and lack of diabetes education were identified as key determinants of adherence.
	https://www.redalyc.org/articulo.oa?id=762279687003	Diabetes Mellitus type 2 AND treatment Adherence	González-Cantero	Relationship between self-efficacy and therapeutic adherence in patients with DM2 in Mexico.	2020	Qualitative - cross-sectional-descriptive	To evaluate the relationship between self-efficacy and therapeutic adherence in patients with DM2.	The Treatment Adherence Scale for Diabetes Mellitus type II version III (EATDM - III) and the Spanish Diabetes Self-Efficacy questionnaire were applied to 314 participants.	Self-efficacy was positively and significantly related to therapeutic adherence. People with high self-efficacy were 3.46 times more adherent to their treatment than those with low self-efficacy.

	https://www.redalyc.org/667873518016/html/	Diabetes Mellitus Type 2 AND Critical Care Nursing OR Treatment Adherence AND Compliance	Del Rosario Fuentes Martínez et al., 2021	Knowledge, attitudes and prevention practices about chronic kidney disease in diabetics and hypertensives.	2021	Descriptive-cross-sectional	The objective was to analyze the knowledge, attitudes and practices on the prevention of chronic kidney disease in users with type 2 diabetes and hypertension in Jocoaitique.	It consisted of a cross-sectional descriptive study, which collected data through home visits and general consultations, and interviewed 125 people, including 108 hypertensive and 17 diabetics.	They indicated that 73 % of the participants had an average level of knowledge, 66 % showed indifference in their attitudes and 76 % presented inadequate self-care practices for prevention.
	https://www.redalyc.org/8/572881536004/	Diabetes Mellitus Type 2 AND Critical Care Nursing OR Treatment Adherence AND Compliance	Flores, 2023	Knowledge, attitudes and prevention practices about chronic kidney disease in diabetics and hypertensives.	2023	Quantitative-correlational	It seeks to evaluate the relationship between self-efficacy and therapeutic adherence in patients with DM2. Data collection will determine the situation.	A correlational study was carried out in which patients with type 2 diabetes were interviewed to collect information on their adherence to treatment, using validated questionnaires. Sociodemographic and clinical factors were analyzed to identify associations with adherence.	A large effect size (0,90) was obtained for treatment adherence. Significant moderating variables, such as age and type of intervention, were identified as influencing the results.
	https://www.redalyc.org/articulo.oa?id=762279687003	Diabetes Mellitus Type 2 AND Prevention	Kathy et al, 2024	Knowledge, attitudes, and prevention practices about chronic kidney disease in diabetics and hypertensives.	2024	Quantitative-correlational	The study aimed to determine the level of uncertainty experienced by patients diagnosed with diabetes mellitus and to explore the relationship between this uncertainty and their coping strategies, focusing on improving patients' understanding of their condition.	A quantitative, correlational methodology was used with 52 volunteer participants with a diagnosis of diabetes. Two validated instruments were applied: the Mishel Merle uncertainty scale and the Tobin et al. Coping strategies inventory, whose data were analyzed using EPIINFO7.2.6.0.	The results indicated a medium level of uncertainty in patients, especially in the perception of stimuli and structural sources. Most participants showed low cognitive ability regarding their health, while coping strategies, such as self-criticism and social isolation, were also low.
	https://www.redalyc.org/articulo.oa?id=10628331010	Diabetes Mellitus Type 2 AND Prevention	Del Rosario Fuentes Martínez et al., 2021	Knowledge, attitudes and prevention practices about chronic kidney disease in diabetics and hypertensives.	2021	Descriptive-cross-sectional	The objective was to analyze the knowledge, attitudes and practices on the prevention of chronic kidney disease in users with type 2 diabetes	It consisted of a cross-sectional descriptive study, which collected data through home visits and general consultations, and interviewed 125	They indicated that 73 % of the participants had an average level of knowledge, 66 % showed indifference in their attitudes and 76 % presented inadequate

							and hypertension in Jocoaitique.	people, including 108 hypertensive and 17 diabetics.	prevention.
	https://www.redalyc.org/266622007/	Diabetes Mellitus Type 2 AND Prevention	Rausch et al., 2020	Diabetes mellitus type 2 and frequency of actions for its prevention and control.	2020	Observational - analytical - cross-sectional	The study seeks to reevaluate the evaluation processes in the provision and demand for health services to improve the quality of care, resulting in timely diagnoses, better metabolic control and a reduction in long-term complications associated with type 2 diabetes mellitus.	The research uses data from the 2012 ENSANUT to identify challenges in the national health system related to diabetes, focusing on the prevalence of cases and the quality of care provided to patients.	The findings indicate a significant increase in diabetes prevalence between 2000 and 2012, with a low percentage of patients reaching treatment targets and insufficient preventive measures against chronic complications, highlighting critical gaps in quality of care.
LILACS	https://www.jovenesenlaciencia.ugto.mx/index.php/jovenesenlaciencia/article/view/3250	Diabetes Mellitus type 2 AND treatment Adherence	Briones et al, 2022	Adherence to pharmacological treatment in patients with Diabetes Mellitus type 2 in Mexico.	2023	Quantitative-Descriptive	To establish the frequency of adherence to pharmacological treatment in patients with type 2 diabetes and its influence on blood glucose levels, as well as to identify factors that influence non-adherence.	Four hundred patients were evaluated using questionnaires such as the Morisky-Green questionnaire, the BMQ and a standard questionnaire on knowledge of the disease. Sociodemographic factors, disease evolution and fasting glucose levels were analyzed.	In 74,5 % of patients, non-adherence to pharmacological treatment was associated with higher glucose levels, worry and lack of knowledge about the disease. In men, nonadherence was associated with refusal to perform glucose tests, whereas in women it was associated with the use of medicinal plants.
	https://dspace.ucuenca.edu.ec/items/5c135165-6032-4b90-97b1-aa2a59ed2ee0](	Diabetes Mellitus type 2 AND treatment Adherence	Garcia et al , 2021	Relationship between treatment adherence and quality of life in adults with type 2 diabetes mellitus.	2021	Quantitative Cross-sectional-Observational	To describe treatment adherence and quality of life in adults with type 2 diabetes mellitus.	Questionnaires such as the Morisky-Green and Levine Test and the Diabetes Mellitus Specific Quality of Life (esdqol) questionnaire were applied to 73 participants diagnosed with type 2 diabetes.	A total of 80,8 % of the participants were not adherent to treatment, with women being the least adherent. Despite this, 73,96 % reported a good quality of life.
	https://pesquisa.bvsalud.org/portal/resource/pt/biblio-1398364	Diabetes Mellitus type 2 AND treatment Adherence	Rojas et al, 2022	Relationship between non-adherence to treatment of Type 2 diabetes and social determinants of health in Ecuador.	2022	Quantitative - descriptive	To describe adherence to treatment and quality of life in adults with type 2 diabetes mellitus.	A total of 121 patients were evaluated by means of telephone interviews, applying the Morisky-Green test, the Lifestyle Measurement (IMEVID), the INEC Socioeconomic Level	Fifty-one point two percent of the patients did not adhere to treatment. A significant association was found between non-adherence and factors such as low socioeconomic level

	https://arxiv.org/abs/2404.14915	Diabetes Mellitus Type 2 AND Critical Care Nursing OR Treatment Adherence AND Compliance	Gonzalez et al, 2021	Factors associated with low adherence to type 2 diabetes treatment: a cross-sectional study.	2021	Quantitative -Observational-Analytic	To describe treatment adherence and quality of life in adults with type 2 diabetes mellitus.	A cross-sectional observational and analytical study was conducted in patients with type 2 diabetes belonging to the CESFAM Jean et Marie Thierry during 2019 and 2020. Data were collected from the cardiovascular program card and the clinical record corresponding to each patient.	Patients did not adhere to pharmacological treatment, which was associated with higher glucose levels, worry and lack of knowledge about the disease. In men, nonadherence was associated with refusal to perform glucose tests, whereas in women it was associated with the use of medicinal plants.
	https://arxiv.org/abs/2009.06629	Diabetes Mellitus Type 2 AND Prevention	Paola et sl , 2024	Development of a mathematical model to predict the benefits of physical activity in the progression of DM2.	2024	Quantitative - explanatory	Predicting the short- and long-term benefits of regular physical activity on DM2 progression using a mathematical model.	A model was developed that formalizes the relationship between exercise and glucose-insulin dynamics, capturing the dose-dependent response to exercise and the persistent benefits after its cessation.	The model consistently replicated the benefits of clinical guidelines for diabetes prevention and predicted persistent benefits after physical activity cessation, aligning with real-world evidence.
	https://arxiv.org/abs/2504.05338	Diabetes Mellitus Type 2 AND Prevention	Athanasio et al, 2020	Development of an explainable model to assess cardiovascular disease risk in patients with DM2.	2020	Quantitative-retrospective	Create a model for predicting cardiovascular risk in patients with DM2 that is explainable and personalized.	The xgboost algorithm was used in conjunction with the SHAP method to develop a predictive model based on 5-year follow-up data from 560 patients with DM2.	The model achieved an AUC of 71,13 % and provided individual explanations of model decisions, which improves transparency and confidence in its clinical use.
	https://pesquisa.bvsalud.org/portal/resource/es/biblio-1289641	Diabetes Mellitus Type 2 AND Prevention	Mohsen et al 2025	Development of a deep learning model combining electrocardiogram (ECG) signals and clinical risk factors to improve early prediction of DM2.	2025	Quantitative-experimental	To improve early prediction of DM2 using a multimodal model that integrates ECG data and clinical risk factors.	ECG-dianet, a deep neural network model, trained and validated with data from the Qatar Biobank, was used. Its performance was evaluated in a five-year longitudinal test set.	The model achieved an AUROC of 0, 845, outperforming models using only ECG or only clinical factors. In addition, it showed significant improvements in reclassification metrics, supporting its utility in the accurate prevention of DM2.
	http://dx.doi.org/10.20453/rmh.v34i3.4921	Diabetes Mellitus Type 2 AND Prevention	Rivero-Abella et al., 2021	Risk factor knowledge and self-care measures in type 2 diabetes mellitus patients with neuropathic ulceration	2021	Quantitative descriptive- cross-sectional	To assess the level of knowledge about risk factors and self-care practices in patients with type 2 diabetes mellitus and neuropathic ulcer.	Descriptive and cross-sectional study conducted in 135 patients attended in two medical offices in Sancti Spíritus between 2018 and 2019.	Women aged 60 to 70 years with insufficient knowledge about risk factors predominated, highlighting the lack of knowledge about cardiovascular disease.

Online Electronic Library (SCIELO)	https://scielo.iics.una.py//scielo.php?script=sci_arttext&pid=S2307-	Diabetes Mellitus type 2 AND treatment Adherence	Flores, 2023	Factors related to adherence to rehabilitative treatment in type 2 diabetic patients undergoing lower limb amputation.	2023	Quantitative-observational-retrospective-retrospective-comparative	To identify the clinical and sociodemographic factors that influence adherence to rehabilitation treatment in patients with type 2 diabetes and lower limb amputation. To analyze their impact on the prosthetic recovery process.	Observational, retrospective and comparative study in 113 patients seen between 2016 and 2019 in a specialized rehabilitation institute.	75,5 % were men with mean age 66,6 years; mean time to prosthetic discharge was 11,4 months. Adherence was significantly associated with age, marital status, socioeconomic status, and health coverage.
	https://doi.org/10.47187/perf.v1i29.201	Diabetes Mellitus Type 2 AND Prevention	Ovelar et al., 2024	Level of knowledge about foot education and self-care in patients with Diabetes Mellitus receiving multidisciplinary care.	2024	Quantitative observational descriptive-transcursal	To determine the level of DM knowledge and foot self-care in patients with type 2 DM.	A descriptive observational cross-sectional study was conducted in adults with DM2 seen in endocrinology and podiatry consultations, applying the DKQ24 and APD-UMA questionnaires after at least two consultations, between September 2022 and June 2023.	A total of 103 patients with DM2 were evaluated, highlighting a high prevalence of foot complications and suboptimal glycemic control; 66 % showed good knowledge of diabetes and 84,8 % presented adequate podiatric self-care practices.
	https://www.scielo.org.ar/scielo.php?script=sci_arttext&pid=S1852-23000100065&lang=es	Diabetes Mellitus Type 2 AND Prevention	Miranda & Gualán, 2023	Therapeutic adherence in type 2 diabetics in a health center in Ecuador.	2023	Quantitative-observational-descriptive	To evaluate therapeutic adherence in patients with type 2 diabetes and to analyze the factors that influence adherence. To determine the role of polymedication in adherence to treatment.	Descriptive study with application of the Morisky-Green-Levine test to 52 patients in a health center in Ecuador, analyzed using SPSS and Chi-square test.	56,25 % of the patients were not adherent to treatment. The most influential factor in adherence was conviction about the importance of continuing treatment (96,87 %).
	https://doi.org/10.18004/12-3893/2022.09.01.34	Diabetes Mellitus Type 2 AND Prevention	Juarez et al., 2023	Detection of high risk of developing type 2 diabetes mellitus using the FINDRISC test in nursing staff of the Schestakow Hospital of San Rafael, Mendoza, Mendoza	2023	Quantitative - descriptive - cross-sectional.	To determine the risk of developing type 2 diabetes mellitus in nursing personnel using the FINDRISC questionnaire. To identify associated factors such as BMI, age and family history.	Descriptive and cross-sectional study applied to 109 nurses, evaluating anthropometric and lifestyle data by means of a survey and the FINDRISC questionnaire.	Sixty-two percent of the personnel presented slightly increased to very high risk of developing DM2. BMI, waist circumference and family history were the most influential factors.

	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC11997517	Diabetes Mellitus Type 2 AND Prevention	Ocaranza et al., 2022	Epidemiological study of patients with diabetes mellitus in the Yanequen family health center, Chile.	2022	Quantitative - descriptive - cross-sectional	To describe the epidemiological characteristics of patients with type 1 and 2 diabetes. To identify clinical factors associated with cardiovascular risk in a population attended in primary care.	A descriptive, cross-sectional, retrospective study was carried out in patients diagnosed with diabetes mellitus in a Chilean health center.	The mean age was 62 years, with an average hba1c of 7,4 % and a high prevalence of hypertension, overweight and obesity. There was a negative correlation between age and glomerular filtration (r = -0,526; p = 0,001).
Virtual Health Library (VHL)	https://pesquisa.bvsalud.org/portal/resource/es/mdl-39877216	Critical Care Nursing AND Diabetes Mellitus Type 2	Zhao et al., 2025	Evaluation of the clinical nursing effects of a traditional Chinese medicine nursing program based on care pathways for patients with diabetes type 2: protocol for a randomized controlled clinical trial.	2025	Quantitative-experimental	To evaluate the clinical impact of a traditional Chinese medicine (TCM)-based nursing program for patients with type 2 diabetes. To standardize nursing practices and improve patient quality of life.	Prospective, randomized, single-blind, controlled clinical trial with 594 patients distributed in two groups: TCM intervention and routine care.	The study is ongoing, with 380 patients enrolled and 202 already randomized. Statistical analysis is not yet performed, and final results are expected in the first quarter of 2025.
	https://pesquisa.bvsalud.org/portal/resource/es/mdl-40139900	Critical Care Nursing AND Diabetes Mellitus Type 2	Siregar et al., 2025	Quality of life of Indonesian family caregivers caring for dependent elderly people with type 2 diabetes mellitus in the community:	2025	Quantitative - cross-sectional - correlational.	To develop and validate a causal model to explain the quality of life of Indonesian family caregivers of elderly people with DM2. To identify psychological and social determinants influencing their well-being.	Cross-sectional, correlational study with 270 caregivers, using standardized scales and PLS-SEM analysis to assess direct and indirect relationships.	The model explained 89,1 % of the variance in quality of life, highlighting that depressive symptoms and caregiver burden have stronger direct negative effects. Social support and self-efficacy showed overall positive effects, partly mediated by reduced depression.
	https://pesquisa.bvsalud.org/portal/resource/es/mdl-40206874	Diabetes Mellitus type 2 AND treatment Adherence	Hesketh et al., 2025	Mobile health biometrics to improve exercise and physical activity adherence in type 2 diabetes (MOTIVATE-T2D): a decentralized feasibility randomized controlled trial conducted in the UK and Canada.	2025	Randomized controlled trial.	To assess the feasibility of the mhealth-supported home-based physical activity intervention (MOTIVATE-T2D) in people with newly diagnosed type 2 diabetes.	Multicenter, parallel-group, randomized controlled trial in which participants were assigned to mhealth intervention or active control, and recruitment rate, retention, and exercise adherence were analyzed.	The MOTIVATE-T2D intervention showed increased exercise adherence at 6 and 12 months, with potential improvements in hba1c and systolic blood pressure, supporting its feasibility for a future full RCT.

	https://pesquisa.bvsalud.org/portal/resource/es/mdl-40268141	Diabetes Mellitus type 2 AND treatment Adherence	Won et al., 2025	Clinical development of oral semaglutide for the treatment of type 2 diabetes mellitus: focusing on early phase clinical trials.	2025	Experimental quantitative.	Provideacomprehensive review of the clinical development of oral semaglutide in DM2, from phase 1 to phase 3 studies. To evaluate its efficacy in reducing hba1c, weight loss and cardiovascular safety profile.	Review of phase 1-3 clinical trials, analyzing pharmacokinetics, dose-response, safety and outcomes of key programs such as Peptide innovation.	Phase 1 showed dose-dependent decreases in hba1c and weight with good tolerability profile; Phase 2 confirmed optimal dose comparable to subcutaneous semaglutide; Phase 3 evidenced significant reductions in hba1c, weight loss and robust cardiovascular safety.
	https://pesquisa.bvsalud.org/portal/resource/es/mdl-39778759	Diabetes Mellitus type 2 AND treatment Adherence	Liu et al, 2025	Associations between disease acceptance and dietary adherence in patients with type 2 diabetes mellitus in China: a cross-sectional study.	2025	Quantitative observational - descriptive	To investigate the relationship between disease acceptance and dietary adherence in patients with DM2 in China. To identify sociodemographic and clinical factors influencing adherence.	Descriptive study with 230 patients, using the Acceptance of Illness Scale (AIS) and the Dietary Adherence Scale (DAS), with correlation and logistic regression analysis.	The mean disease acceptance score was 24,50 ± 7,34 and the mean dietary adherence score was 78,79 ± 13,32.
	https://pesquisa.bvsalud.org/portal/resource/es/mdl-36458653	Diabetes Mellitus Type 2 AND Critical Care Nursing OR Treatment Adherence AND Compliance	Blood et al., 2025	Type 2 diabetes, disease, and management patterns in a large and diverse health care system: problems and opportunities for guideline-based therapies.	2025	Quantitative Observational	To assess eligibility and use of SGLT2 inhibitors and GLP-1 receptor agonists in patients with type 2 diabetes and cardiovascular or renal comorbidities in a US health system.	Electronic medical records of patients with type 2 diabetes and associated comorbidities were queried, evaluating the prescription of isglt2 and GLP-1 ARGLP-1 according to clinical guidelines.	Eighty-three percent of patients with type 2 diabetes had an indication for isglt2 or ARGLP-1, but only 33 % were prescribed these treatments, evidencing low adoption in a high-risk population.
	https://pesquisa.bvsalud.org/portal/resource/es/mdl-36127243	Diabetes Mellitus Type 2 AND Critical Care Nursing OR Treatment Adherence AND Compliance	Longwitz & Palokas, 2023	Diabetes self-management education for adults with type 2 diabetes via telehealth along with remote patient monitoring: a best practice implementation project.	2023	Quantitative quasi-experimental	Promoting evidence-based practices for diabetes self-management education through telehealth and remote patient monitoring at the University of Mississippi Center for Telehealth. Improving access and quality of education in populations with geographic and socioeconomic barriers.	Implementation of evidence following JBI PACES and grip, with pre- and post-audits to measure compliance with five best practices for type 2 diabetes education via telehealth.	Compliance with best practices increased from 47,7 % at the initial audit to 80 % after the interventions. Individualizing education to the needs of each patient was key to this improvement.

	https://pesquisa.bvsalud.org/portal/resource/es/mdl-40171695	Diabetes Mellitus Type 2 AND Critical Care Nursing OR Treatment Adherence AND Compliance	Silva-Tinoco et al., 2022	Adherence to antidiabetic treatment in primary health care in people with type 2 diabetes. A survey including sociodemographic, patient-related, and clinical factors.	2022	Quantitative cross-sectional	To investigate patient-related factors influencing adherence to antidiabetic treatment in people with DM2 in primary care. To identify behaviors and perceptions that allow the design of interventions to improve adherence.	Cross-sectional study in 319 patients in 18 health units in Mexico City, with data from records, interviews and a self-administered questionnaire on adherence and associated factors.	Adherence was good in 48,3 % of the patients; exercise and self-care practices increased the probability of adherence (OR 1,26; 95 % CI 1,09-1,46). Treatment interference with daily activities (OR 0,27; 95 % CI 0,14-0,52) and dissatisfaction with physician responses (OR 0,42; 95 % CI 0,19-0,94) were negatively associated with adherence.
	https://pesquisa.bvsalud.org/portal/resource/es/mdl-40313359	Diabetes Mellitus Type 2 AND Prevention	Simelane et al., 2025	Epidemiology of hypertension in patients with diabetes type 2 in the Democratic Republic of Congo.	2025	Quantitative cross-sectional	To describe the epidemiology of hypertension among patients with type 2 diabetes in Kinshasa, Democratic Republic of Congo.	Analytic cross-sectional study in 620 patients with type 2 diabetes, assessing the prevalence of hypertension and uncontrolled hypertension, and using multivariable logistic regression for associated factors.	One third of participants had hypertension, with a high prevalence of uncontrolled hypertension (50,2 %); overweight and duration of diabetes were factors associated with hypertension and its lack of control.
	https://pesquisa.bvsalud.org/portal/resource/es/mdl-40262963	Diabetes Mellitus Type 2 AND Prevention	Walls et al., 2025	Trial and participant characteristics of a home-visit diabetes intervention: the Together Overcoming Diabetes study .	2025	Randomized Clinical Trial	To describe the baseline characteristics-demographic, physiological, and psychosocial-of American Indian adults with DM2 and their young caregivers enrolled in the Together Overcoming Diabetes (TOD) intervention.	Wait-list randomized clinical trial (CBPR RCT) with 81 adult (DM2)-young (10-16 years) dyads from five tribal nations completing baseline assessments prior to group assignment.	77,8 % of adults were female, with mean age 49.5 years and mean hba1c of 7,93 ± 1,99; 19 % of youth reported DM2 or prediabetes.
	https://pesquisa.bvsalud.org/portal/resource/es/mdl-40262963	Diabetes Mellitus Type 2 AND Prevention	Goedecke et al., 2025	Omics approach to personalized prevention of type 2 diabetes mellitus for African and European populations (OPTIMA): a protocol paper.	2025	Quantitative observational-descriptive	Develop ethnicity- and sex-specific dysglycemia prediction models in sub-Saharan African and European populations. Design and evaluate culturally tailored and cost-effective dietary interventions for the prevention of TD2.	Multi-omics analysis and prospective data from three cohorts (South Africa, Ghana-migrants and Sweden), integrating proteomics, metabolomics and dietary patterns to identify predictive biomarkers and build intervention prototypes.	Expected to discover ethnicity- and gender-specific biomarkers predictive of glucose intolerance and DT2, and characterize dietary patterns associated with differential risk.

DISCUSSION

In particular, the study by Villalba et al.[5] reported that the implementation of personalized educational programs, which included teaching insulin administration, monitoring, and healthy lifestyle planning, achieved a significant improvement in glycemic control, resulting in a 35 % increase in adherence compared to patients who received standard care. These results are consistent with previous research, which highlights the importance of individualized educational management as a key factor in adherence.

Additionally, data indicate that nursing interventions that combine education, psychological support, and regular follow-up have a more significant impact on adherence. For example, the study by Rodriguez et al.[7], which examined nurse-led programs in a community setting, reveals that 78 % of participants in the social support programs showed substantial improvements in treatment adherence, in contrast to 52 % of the control group. The incorporation of the social and emotional support component is reaffirmed as an effective strategy to strengthen adherence, as reported by other authors who emphasize the influence of social support on motivation to maintain healthy behaviors.

It is essential to highlight that, in several studies, training in self-care and disease self-management has had a direct impact on adherence. Silva et al.[2] found that teaching focused on diabetes self-management resulted in a 22 % increase in medication adherence and the adoption of healthy lifestyles. These findings align with previous research, which indicates that self-management education enhances patient awareness of the importance of self-care, influences intrinsic motivation, and thereby promotes more effective treatments.

The analysis also reveals that interventions involving the use of reminders, such as phone calls and text messages, have shown positive effects on adherence in the short term. Nyirongo et al.[3] reported that adherence increased by 25 % in programs that included these reminder mechanisms compared to groups without such an intervention. Similar studies have found that these technological devices facilitate the consolidation of self-care routines, reduce forgetfulness, and reinforce the patient's responsibility for their treatment, a fundamental aspect of diabetes management.

On the other hand, strategies that integrate training in problem-solving and coping skills have also been shown to improve therapeutic compliance. Research by Mora[4] indicates that patients who participated in coping training sessions reported 30 % higher adherence after the intervention compared to those who did not receive this training. The patient's ability to manage adverse or stressful situations has been consistently linked to greater persistence in recommended behaviors for treating diabetes.

Notably, evidence suggests that the nurse-patient relationship has a significant impact on adherence. Shahabi et al.[8] identified that an environment of trust and open communication increased adherence by 40 compared to interventions that were not focused on the relational aspect. Complementarily, authors such as Fitriani et al.[10] have emphasized that perceived self-efficacy, reinforced by continuity of care and emotional support, is a crucial predictor of adherence to treatment in diabetic patients, which coincides with the results presented in this review.

Another relevant trend in the results of the reviewed studies is that multifactorial interventions, which combine education, social support, coping skills, and follow-up, yield better overall adherence results. Díaz et al.[9] reported that integrated programs achieved an average adherence rate of 83 %, compared to 55 % for monotonous approaches, which evidences the need for interdisciplinary approaches in the care of patients with diabetes. These conclusions support the findings of other authors, who suggest that integrated, nurse-led interventions outperform single approaches in promoting adherence.

The duration of programs and consistent follow-up appear to be key determinants of the sustainability of adherence gains. Georgieva[1] emphasizes that programs lasting more than six months were able to maintain adherence levels of more than 80 %, compared to less than 60 % in programs of short duration. This finding aligns with other research suggesting that adherence improves when patients maintain regular contact with the healthcare team and receive ongoing support.

These findings suggest that nursing strategies aimed at improving adherence in patients with type 2 diabetes should be multifaceted, encompassing educational, psychosocial, and technological aspects, in addition to strengthening the nurse-patient relationship.[6] The evidence consulted aligns with the international literature, which emphasizes the importance of implementing context-specific and sustainable interventions to achieve lasting behavioral changes that positively impact clinical outcomes in this population.

CONCLUSIONS

Nursing interventions that incorporate personalized health education and individualized management strategies show a positive impact on glycemic control and quality of life in patients with type 2 diabetes, evidencing the importance of tailored approaches to promote adherence.

The implementation of care programs focused on patient autonomy and personalized disease management promotes greater adherence to treatment, as it facilitates an understanding of the therapeutic regimen, reduces barriers related to a lack of knowledge, and enhances patient self-esteem in self-care.

The use of educational strategies that include constant monitoring, training in medication management, and the provision of emotional support by the nursing staff contributes to improving adherence, showing that a comprehensive and multidisciplinary intervention enhances clinical outcomes and patient motivation.

The evidence suggests that health education by nurses should be accompanied by a culturally sensitive approach, adaptable to different organizational contexts and available resources, which is essential for facilitating acceptance, active participation, and the sustainability of interventions in diverse settings.

Evaluation of the effectiveness of these strategies reveals that their success depends mainly on the early identification of individual and environmental barriers, in addition to the integration of educational actions with continuous follow-up, which supports the need

to develop standardized protocols and evidence-based recommendations to guide nursing practice in the management of patients with T2DM, adjusting interventions to the particular characteristics of each clinical and sociocultural context.

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CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

AUTHORSHIP CONTRIBUTION

Conceptualization: Kimberly Anais Pineda Quitio, Yulisa Isabel Soria Yupangui.
Data curation: Siomara Abigail Loja Lasluisa.
Formal analysis: Kimberly Anais Pineda Quitio.
Research: Yulisa Isabel Soria Yupangui.
Methodology: Emily Obdulia Analuisa Analuisa.
Project administration: Kimberly Anais Pineda Quitio, Jeannette Mercedes Acosta Nuñez.
Resources: Emily Obdulia Analuisa Analuisa.
Software: Siomara Abigail Loja Lasluisa.
Supervision: Jeannette Mercedes Acosta Nuñez.
Validation: Jeannette Mercedes Acosta Nuñez.
Visualization: Jeannette Mercedes Acosta Nuñez.
Writing - original draft: Jeannette Mercedes Acosta Nuñez, Kimberly Anais Pineda Quitio.
Writing - revision and editing: Jeannette Mercedes Acosta Nuñez, Kimberly Anais Pineda Quitio.

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