

Nurses' Chronic Disease Management Competencies And Patient Adherence To Long-Term Treatment Plans

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Abstract

This study aimed to investigate nurses' self-assessed competencies in chronic disease management and their assessment of patient adherence to long-term treatment plans. A descriptive-comparative-correlational design was employed, utilizing a researcher-made questionnaire administered to 131 nurses in medical-surgical units at Jinan Central Hospital. The results indicated that nurses generally perceived themselves as competent, with an overall mean competency score of 3.14. Patient adherence was assessed with a mean score of 3.26, indicating that nurses viewed their patients as largely compliant with treatment plans. Notably, competencies in patient education and emotional support showed significant positive correlations with adherence behaviors. However, areas such as medication adherence and lifestyle changes were identified as needing improvement. The study concluded that enhancing nursing competencies, particularly in patient education and emotional support, is essential for improving long-term adherence and health outcomes in chronic disease management.

Keywords

Chronic disease management; nursing competencies; patient adherence; self-assessment; healthcare outcomes

1. Introduction

The increasing prevalence of chronic diseases such as diabetes, hypertension, and stroke has underscored the critical role of nurses in managing long-term treatment plans. Nurses are often at the forefront of patient care, providing education, support, and continuous monitoring to facilitate adherence to treatment regimens. Their competencies in chronic disease management directly influence patient outcomes, making it essential to understand and enhance these skills to improve adherence rates. Effective nurse-led interventions can empower patients to take an active role in managing their conditions, leading to better health outcomes and quality of life. Therefore, investing in nursing education and training is vital for the successful

management of chronic diseases globally.

A study by Yoo et al. [1] highlighted the significance of medication beliefs and health literacy in predicting long-term adherence among stroke survivors. The research found that patients with positive beliefs about their medications and higher health literacy levels were more likely to adhere to their treatment plans over a year. This underscores the necessity for nurses to assess and address patients' perceptions and understanding of their medications, tailoring education to individual needs to foster better adherence. By enhancing patients' health literacy and addressing misconceptions about medications, nurses can play a pivotal role in improving adherence and, consequently, patient outcomes. Such personalized education strategies are essential components of effective chronic disease management.

A nurse-led supportive education program implemented in community hospitals demonstrated substantial improvements in patients with uncontrolled type 2 diabetes. The program, which included self-care deficit assessments and personalized education, led to significant behavior changes and reductions in HbA1c levels [2]. This approach emphasizes the effectiveness of nurse-led interventions in promoting self-management and adherence among chronic disease patients. By identifying individual self-care deficits and providing targeted education, nurses can empower patients to take control of their health, leading to improved clinical outcomes. Such interventions are particularly valuable in community settings where resources may be limited.

A comprehensive program targeting individuals with type 2 diabetes resulted in increased disease-related knowledge and positive behavior changes, including improved dietary habits and physical activity levels [3]. These findings highlight the critical role of nurses in delivering education that empowers patients to take an active role in managing their conditions. By providing culturally tailored and accessible educational materials, nurses can effectively engage patients in their care, fostering long-term adherence to treatment plans. Such initiatives are essential in addressing the growing burden of chronic diseases.

Research focusing on patients with type 2 diabetes revealed that higher self-efficacy and better knowledge about their condition were associated with improved medication adherence [4]. Nurses can leverage this insight by developing interventions that boost patients' confidence in managing their health, thereby enhancing adherence to treatment plans. By fostering a supportive environment and providing individualized education, nurses can help patients build the skills and confidence necessary for effective self-management. This approach is particularly important in settings where healthcare resources are limited, and patients may face additional barriers to adherence. Empowering patients through education and support is a cornerstone of effective chronic disease management.

A study evaluated a local clinic-based chronic disease management intervention that included care planning, education, monitoring, and evaluation. The findings indi-

cated that patients participating in the full component intervention exhibited higher medication adherence rates for hypertension and diabetes compared to those who did not participate [5]. This underscores the importance of comprehensive nursing interventions in enhancing patient adherence. By implementing structured programs that address multiple aspects of disease management, nurses can significantly improve adherence and health outcomes. Such models can serve as a blueprint for other healthcare systems aiming to enhance chronic disease management.

A study reviewed patient-centered digital interventions for pulmonary tuberculosis, finding that such interventions improved treatment adherence in several cases [6]. This suggests that digital tools can complement nursing efforts in chronic disease management. By integrating technology into care plans, nurses can provide continuous support and monitoring, enhancing patient engagement and adherence. Digital interventions can also facilitate communication between patients and healthcare providers, ensuring timely interventions when necessary. As technology becomes increasingly accessible, its integration into nursing practice offers promising avenues for improving chronic disease management.

The implementation of the Joint Asia Diabetes Evaluation (JADE) program, a web-based collaborative platform, facilitated team-based integrated care for diabetes patients. The program's protocol-driven multidisciplinary approach reduced clinical risks and improved patient adherence[7]. This highlights the effectiveness of collaborative care models involving nurses. By working closely with other healthcare professionals, nurses can ensure comprehensive and coordinated care, addressing various aspects of chronic disease management. Such integrated approaches are essential for managing complex chronic conditions effectively.

A systematic review focusing on nurse-led interventions for improving medication adherence in chronic diseases emphasized the effectiveness of personalized education, telemonitoring, and consistent follow-ups. These strategies, led by nurses, significantly enhanced patient adherence [8]. Such interventions are vital in managing chronic conditions effectively. By tailoring interventions to individual patient needs and leveraging technology for monitoring and support, nurses can play a pivotal role in promoting adherence. Continued research and investment in these areas are essential for advancing chronic disease management practices.

Enhancing nurses' competencies in chronic disease management is crucial for improving patient adherence to long-term treatment plans. Through comprehensive education, supportive policies, digital interventions, and collaborative care models, nurses can significantly influence patient outcomes. Ongoing research and investment in nursing education and infrastructure are essential to sustain these improvements. By empowering nurses with the necessary skills and resources, healthcare systems can better address the growing burden of chronic diseases. Ultimately, such efforts will lead to improved health outcomes and quality of life for patients across the region.

2. Methodolog

2.1. Research Design

This study employed a descriptive-comparative-correlational design to investigate nurses' self-assessed chronic disease management competencies and their assessment of patient adherence to long-term treatment plans. This approach facilitates the systematic examination of traits, behaviors, and interrelationships within a real-world clinical setting, enabling numerical analysis, comparison, and correlation of study variables.

2.1.1. This study investigated this topic from the design of four parts

- Frequency Distribution of the Nurse Respondents' Profile - This table provides essential demographic information about the study participants, which is crucial for contextualizing the results.
- Summary Self-Assessment of the Nurse Respondents of their Chronic Disease Management Competencies - This summary illustrates the overall competency assessment, which is central to the research focus.
- Summary Assessment of the Nurse Respondents of the Patient Adherence to Long-Term Treatment Plans - This table summarizes the primary outcomes related to patient adherence, which is a key aspect of the research.
- Relationship between the Self-Assessment of the Nurse Respondents of their Chronic Disease Management Competencies and the Assessment of the Nurse Respondents of the Patient Adherence to Long-Term Treatment Plans - This table provides insights into the correlations between nurse competencies and patient adherence, highlighting important findings that support the study's objectives.

2.2. Research Locale and Sampling

The study was conducted at Jinan Central Hospital. A purposive sample of 131 nurses from medical-surgical units was recruited. Inclusion criteria required a minimum of three years of nursing experience at the hospital.

2.3. Research Instrument

Table 1. Nurse Questionnaire

NURSE STUFF QUESTIONNAIRE	
NURSES' CHRONIC DISEASE MANAGEMENT COMPETENCIES AND PATIENT ADHERENCE TO LONG-TERM TREATMENT PLANS	
Part I. Profile of the nurse respondents in terms of	
1.1 Name _____	
1.2 Sex: () Male () Female	
1.3. Age: () less than 25 yrs. old () 36-45 yrs. old () 25-30 yrs. old () 46-50 yrs. old	

() 31-35 yrs. old () more than 50 yrs. old

1.4 Number of Years as a Nurse:

5 Years

5-10 Years

More than 10 Years

Part II. Chronic Disease Management Competencies

Direction: For each statement below, please assess your chronic disease management competencies in the following areas by indicating the extent to which each statement is true of you. Rate your chronic disease management competencies on a scale from 1 to 4, where:

Rate Verbal Interpretation 4 Very True of Me

3 True of Me

2 Slightly True of Me 1 Not True of Me

Indicators (4) (3) (2) (1) A. Patient Education and Counselling Skills

1. I can explain chronic disease conditions in a way that patients understand.
2. I use visual aids or educational tools to improve patient understanding.
3. I tailor my education strategies based on individual patient needs.
4. I ensure patients and families understand medication regimens.
5. I counsel patients effectively about lifestyle modifications.
6. I check for understanding after providing health instructions.
7. I adjust my communication approach depending on the patient's level of health literacy.

B. Care Planning and Goal Setting

8. I involve patients in setting realistic care goals.
9. I develop individualized care plans that align with patient needs.
10. I collaborate with other health professionals when planning chronic care.
11. I regularly review and revise care goals with patients.
12. I set measurable and time-bound goals with my patients.
13. I consider patient preferences when formulating care plans.
14. I document care plans clearly and accurately.

C. Monitoring and Clinical Decision-Making

15. I regularly assess patient progress toward chronic care goals.
16. I recognize early signs of worsening chronic conditions.
17. I base my decisions on clinical assessment and patient data.
18. I adjust interventions based on monitoring results.
19. I know when to refer patients to higher levels of care.
20. I integrate lab and diagnostic results into my decision-making.
21. I document clinical observations systematically to support decisions.
22. I feel confident in managing multiple chronic conditions concurrently.

D. Empowerment and Support for Self-Management

23. I encourage patients to take active roles in managing their conditions.
24. I guide patients in setting personal health goals.
25. I provide tools and resources for self-monitoring.
26. I follow up on patient progress between clinical visits.
27. I recognize and reinforce patient successes in disease management.
28. I motivate patients to sustain long-term behavior changes.
29. I respect patient autonomy in managing their health.

E. Cultural Competency and Patient-Centered Care

30. I respect cultural beliefs that influence health behavior.
31. I adapt my communication to align with the patient's cultural background.
32. I ask about patients' cultural preferences regarding care.
33. I ensure care decisions consider the patient's values and beliefs.
34. I avoid assumptions about patients' understanding of their condition.
35. I am open to learning from patients about their cultural perspectives.
36. I strive to provide equitable care regardless of background.

F. Use of Evidence-Based Practice and Technology

37. I apply current guidelines in managing chronic diseases.

- 38. I use digital tools to monitor patient health trends.
- 39. I integrate evidence-based protocols into my daily practice.
- 40. I access clinical databases or journals to support decisions.
- 41. I use health technology to enhance patient care delivery.
- 42. I stay updated on new evidence in chronic care management.

43. I teach patients how to use health apps or devices when needed.

G. Emotional Support and Relationship Building

- 44. I take time to listen actively to my patients' concerns.
- 45. I build trust by showing empathy and compassion.
- 46. I support patients through emotional challenges related to their illness.
- 47. I establish strong therapeutic relationships with patients.
- 48. I help patients manage fear or anxiety about their health.
- 49. I remain calm and supportive during difficult conversations.
- 50. I respect patient boundaries while providing emotional care.
- 51. I follow up with patients to reinforce emotional support.

Part III. Patient Adherence to Long-Term Treatment Plans

Direction: For each statement below, please assess the patient adherence to long-term treatment plans in the following areas by indicating the extent to which each statement is true of you. Rate the patient adherence to long-term treatment plans on a scale from 1 to 4, where:

Rate	Verbal Interpretation
4 Very True of My Patients	3 True of My Patients
2 Slightly True of My Patients	1 Not True of My Patients

Indicators (4) (3) (2) (1)

A. Medication Adherence

- 1. My patients consistently take their medications as prescribed.
- 2. My patients rarely miss doses of their medication.
- 3. My patients refill their prescriptions on time.
- 4. My patients follow the medication schedule without needing reminders.
- 5. My patients understand the importance of long-term medication use.
- 6. My patients ask questions when they have concerns about their medications.

B. Lifestyle and Behavioral Changes

- 7. My patients actively engage in recommended lifestyle changes (e.g., diet, exercise).
- 8. My patients have reduced harmful behaviors (e.g., smoking, alcohol) based on advice.
- 9. My patients show commitment to making long-term lifestyle changes.
- 10. My patients incorporate healthy habits into their daily routines.
- 11. My patients understand how lifestyle changes impact their health outcomes.
- 12. My patients are proactive in modifying behaviors for better health.

C. Self-Monitoring Practices

- 13. My patients regularly monitor their vital signs or disease markers (e.g., blood pressure, glucose).
- 14. My patients record their health data consistently.
- 15. My patients understand how to use self-monitoring tools correctly.
- 16. My patients report changes in their condition promptly.
- 17. My patients are confident in managing their self-monitoring activities.
- 18. My patients know when to seek help based on self-monitoring results.

D. Attendance at Follow-Up Appointments

- 19. My patients regularly attend scheduled follow-up visits.
- 20. My patients inform me ahead of time if they cannot make an appointment.
- 21. My patients value the importance of continuity in care.
- 22. My patients rarely skip appointments without valid reasons.
- 23. My patients request rescheduling instead of missing follow-ups.

E. Patient Understanding and Knowledge of Treatment Plan

- 24. My patients understand the goals of their long-term treatment.
- 25. My patients can explain their treatment plan in their own words.
- 26. My patients know which actions support their treatment outcomes.
- 27. My patients ask for clarification when they don't understand the plan.

28. My patients are aware of potential side effects or complications.
 29. My patients understand the long-term benefits of adherence.

F. Barriers to Adherence

30. My patients report cost as a barrier to following the treatment plan.
 31. My patients have difficulty accessing prescribed medications or services.
 32. My patients face time or transportation issues in continuing care.
 33. My patients sometimes lack family or social support.
 34. My patients experience health literacy barriers.
 35. My patients struggle with complex or confusing treatment instructions.

G. Psychological and Emotional Factors

36. My patients' mental health affects their treatment adherence.
 37. My patients become discouraged when results are not immediate.
 38. My patients express fear or anxiety about their condition.
 39. My patients show signs of depression or emotional distress related to their illness.
 40. My patients receive psychological support when needed.
 41. My patients cope well emotionally with long-term treatment demands.

H. Patient Motivation and Self-Efficacy

42. My patients are motivated to achieve their health goals.
 43. My patients believe they have the ability to manage their condition.
 44. My patients show confidence in their ability to follow the treatment plan.
 45. My patients are consistent in applying what they've learned about their illness.
 46. My patients demonstrate a positive attitude toward managing their health.
 47. My patients seek out resources to improve their health outcomes.
 48. My patients actively participate in setting treatment goals.

2.4. Data Gathering and Analysis

After obtaining institutional permission and informed consent, questionnaires were administered onsite. Data were analyzed using SPSS. Descriptive statistics (frequency, percentage, mean, standard deviation) summarized profiles and scale scores. Inferential statistics (independent samples t-test, one-way ANOVA, Pearson's r correlation) were used to test for significant differences and relationships between variables. The significance level was set at $p < .05$.

2.5. Ethical Considerations

Approval was obtained from the hospital administration. Participation was voluntary and anonymous, with informed consent secured from all nurse respondents.

3. Research results

3.1. Table 2 shows the demographic profile of the nurse respondents in terms of their age, and sex

Table 2. Frequency Distribution of the Nurse Respondents' Profile

Profile	Frequency	Percentage
Age		
Less than 25 years old	18	22.5%
25-30 years old	15	18.8%
31 -35 years old	18	22.5%
36-40 years old	11	13.8%
41 -45 years old	10	12.5%
46-50 years old	8	10%
Total		

	131	100%
Sex		
Male	38	47.5%
Female	42	52.5%
Total	131	100%
Number of Years as a Nurse		
3-5 years	34	42.5%
5-10 years	19	23.8%
More than 10 years	27	33.8%
Total	131	100%

presents the demographic characteristics of the 131 nurse respondents. The analysis reveals a sample predominantly composed of young to mid-career professionals. The age distribution is notably bimodal, with the largest proportions of respondents being under 25 years old (22.5%) and between 31-35 years old (22.5%), suggesting a cohort with a blend of new entrants and relatively experienced nurses. The gender distribution is nearly equivalent, with a slight majority being female (52.5%), which is representative of the gender composition typical in the nursing profession. Regarding professional experience, the largest group (42.5%) has 3-5 years of experience, indicating that the sample is weighted towards early-career nurses. However, a substantial portion (33.8%) possesses over ten years of experience, ensuring that the data incorporates perspectives from seasoned practitioners. This demographic profile provides a diverse foundation for assessing competencies and perceptions across different experience levels and age groups.

3.2. Summary Self-Assessment of Chronic Disease Management Competencies

Table 3. Summary Self-Assessment of Chronic Disease Management Competencies

Chronic Disease Management Competencies	Mean	SD	Qualitative Description	Interpretation	Rank
Patient Education and Counselling Skills	3.06	.40	True of Me	Competent	7
Care Planning and Goal Setting	3.30	.31	True of Me	Competent	1
Monitoring and Clinical Decision - Making	3.09	.40	True of Me	Competent	4
Empowerment and Support for Self-Management	3.09	.40	True of Me	Competent	4
Cultural Competency and Patient-Centered Care	3.15	.37	True of Me	Competent	3
Use of Evidence - Based Practice and Technology	3.22	.44	True of Me	Competent	2
Emotional Support and Relationship Building	3.08	.32	True of Me	Competent	6
Overall	3.14	.19	True of Me	Competent	

summarizes the nurses' self-assessed competencies across seven domains. The

overall composite mean of 3.14 (SD = 0.19) falls within the "Competent" range, indicating a generally positive self-perception among the nurses. The domain of Care Planning and Goal Setting ranked highest (Mean = 3.30, SD = 0.31), suggesting nurses feel most confident in structuring individualized care and collaborating with patients on objectives. This is closely followed by Use of Evidence-Based Practice and Technology (Mean = 3.22, SD = 0.44), reflecting a perceived strength in integrating current research and technological tools into practice.

Conversely, the domain of Patient Education and Counselling Skills received the lowest mean score (Mean = 3.06, SD = 0.40), though it is still rated as "Competent." This indicates a relative area for improvement, potentially in areas like simplifying complex information or ensuring patient comprehension, particularly regarding medication regimens. The low standard deviations across most domains suggest a high level of consensus among respondents in their self-ratings. The ranking provides valuable insight for targeted training, highlighting strengths to be leveraged (care planning, evidence-based practice) and a key area for developmental focus (patient education).

3.3. Summary Assessment of Patient Adherence to Long-Term Treatment Plans

Table 4. Summary Assessment of the Nurse Respondents of the Patient Adherence to Long-Term Treatment Plans

Patient Adherence to Long-Term Treatment Plans	Mean	SD	Qualitative Description	Interpretation	Rank
Medication Adherence	2.97	.38	True of My Patients	Adherent	8
Lifestyle and Behavioral Changes	3.06	.36	True of My Patients	Adherent	7
Self-Monitoring Practices	3.41	.38	True of My Patients	Adherent	3
Attendance at Follow - Up Appointments	3.49	.28	True of My Patients	Adherent	1
Patient Understanding and Knowledge of Treatment Plan	3.46	.38	True of My Patients	Adherent	2
Barriers to Adherence	3.15	.31	True of My Patients	Adherent	6
Psychological and Emotional Factors	3.35	.38	True of My Patients	Adherent	4
Patient Motivation and Self-Efficacy	3.20	.33	True of My Patients	Adherent	5
Overall	3.26	.12	True of My Patients	Adherent	

displays the nurses' assessment of their patients' adherence behaviors. The overall mean of 3.26 (SD = 0.12) is categorized as "Adherent," indicating that nurses generally perceive their patients to be compliant with long-term treatment plans. The highest-rated domain is Attendance at Follow-Up Appointments (Mean = 3.49, SD =

0.28), suggesting that patients are most consistent in keeping scheduled clinical visits. This is closely followed by Patient Understanding and Knowledge of Treatment Plan (Mean = 3.46, SD = 0.38), indicating that nurses believe their patients are well-informed about their care.

In contrast, the lowest-rated domains are Medication Adherence (Mean = 2.97, SD = 0.38) and Lifestyle and Behavioral Changes (Mean = 3.06, SD = 0.36). These scores, though still "Adherent," are notably closer to the lower bound of the range, revealing a perceived challenge in maintaining consistent medication intake and implementing sustainable behavioral modifications. This pattern suggests that while patients are engaged with the clinical process (appointments, knowledge), translating that knowledge into daily self-management remains a more significant hurdle, as perceived by their nurses.

3.4. Summary Self-Assessment of Chronic Disease Management Competencies

Table 5. Relationship between the Self-Assessment of the Nurse Respondents of their Chronic Disease Management Competencies and the Assessment of the Nurse Respondents of the Patient Adherence to Long-Term Treatment Plans

Chronic Disease Management Competencies	Patient Adherence to Long-Term Treatment Plans	Computed r	Sig	Decision on Ho	Interpretation
Patient Education and Counseling Skills	Medication Adherence	.025	.823	Accepted	Not Significant
	Lifestyle and Behavioral Changes	.302	.006	Rejected	Significant
	Self-Monitoring Practices	.442	.000	Rejected	Significant
	Attendance at Follow-Up Appointments	.068	.547	Accepted	Not Significant
	Patient Understanding and Knowledge of Treatment Plan	-.220	.050	Accepted	Not Significant
	Barriers to Adherence	.014	.902	Accepted	Not Significant
	Psychological and Emotional Factors	.110	.330	Accepted	Not Significant
	Patient Motivation and Self-Efficacy	-.300	.007	Rejected	Significant
	Total	.171	.128	Accepted	Not Significant
Care Planning and Goal Setting	Medication Adherence	-.022	.846	Accepted	Not Significant
	Lifestyle and Behavioral Changes	.077	.497	Accepted	Not Significant
	Self-Monitoring Practices	-.116	.305	Accepted	Not Significant
	Attendance at Follow-Up Appointments	.059	.606	Accepted	Not Significant

	Patient Understanding and Knowledge of Treatment Plan	-.098	.388	Accepted	Not Significant
	Barriers to Adherence	.193	.087	Accepted	Not Significant
Practice and Technology	Self-Monitoring Practices	-.289	.009	Rejected	Significant
	Attendance at Follow-Up Appointments	.002	.986	Accepted	Not Significant
	Patient Understanding and Knowledge of Treatment Plan	.063	.579	Accepted	Not Significant
	Barriers to Adherence	-.068	.546	Accepted	Not Significant
	Psychological and Emotional Factors	.037	.743	Accepted	Not Significant
	Patient Motivation and Self-Efficacy	.277	.013	Rejected	Significant
	Total	-.145	.199	Accepted	Not Significant
Emotional Support and Relationship Building	Medication Adherence	.039	.732	Accepted	Not Significant
	Lifestyle and Behavioral Changes	.167	.138	Accepted	Not Significant
	Self-Monitoring Practices	.163	.149	Accepted	Not Significant
	Attendance at Follow-Up Appointments	.417	.000	Rejected	Significant
	Patient Understanding and Knowledge of Treatment Plan	-.138	.222	Accepted	Not Significant
	Barriers to Adherence	.116	.305	Accepted	Not Significant
	Psychological and Emotional Factors	.173	.125	Accepted	Not Significant
	Patient Motivation and Self-Efficacy	-.076	.505	Accepted	Not Significant
	Total	.279	.012	Rejected	Significant
Overall Chronic Disease Management Competencies	Overall Patient Adherence to Long-Term Treatment Plans	.167	.139	Accepted	Not Significant

Patient Education & Counselling Skills showed a strong positive correlation with Self-Monitoring Practices ($r = 0.442$, $p < 0.001$) and Lifestyle and Behavioral Changes ($r = 0.302$, $p = 0.006$). This suggests that nurses who are confident educators see more proactive self-care in their patients.

Cultural Competency & Patient-Centered Care was positively correlated with Medication Adherence ($r = 0.252$, $p = 0.024$), Lifestyle and Behavioral Changes ($r = 0.278$, $p = 0.013$), and Psychological and Emotional Factors ($r = 0.221$, $p = 0.048$). This un-

derscores the broad impact of culturally sensitive care on both behavioral and emotional aspects of adherence.

Emotional Support & Relationship Building had a strong positive correlation with Attendance at Follow-Up Appointments ($r = 0.417$, $p < 0.001$) and with the Overall adherence score ($r = 0.279$, $p = 0.012$). This highlights that empathetic, supportive relationships are crucial for keeping patients engaged in the care process.

Notable Negative Correlations: Surprisingly, higher scores in Use of Evidence-Based Practice and Technology were associated with lower ratings for Medication Adherence ($r = -0.223$, $p = 0.047$) and Self-Monitoring Practices ($r = -0.289$, $p = 0.009$). This may indicate that an over-reliance on technology or complex evidence-based protocols could inadvertently create barriers to simple, consistent patient self-management routines.

4. Discussion

The study revealed that the majority of nurse respondents were female, aged either ≤ 25 or 31–35, and had 3–5 years of experience. Nurses generally perceived themselves as competent in chronic disease management, though areas such as documentation, patient autonomy, evidence-based practice updates, and managing difficult emotional interactions require further development.

Patients were largely viewed as adherent to long-term treatment plans. However, improvements are needed in patient education, proactive engagement, and support systems to sustain adherence and promote holistic empowerment. Demographic factors influenced certain perceptions: sex and years of experience affected assessments of emotional support and care planning, while age influenced the recognition of adherence barriers. Years of experience significantly affected perceptions of medication adherence, with less experienced nurses rating it higher. Specific nursing competencies showed meaningful correlations with patient adherence behaviors—both positive and negative—highlighting the nuanced role of nurse skills in influencing patient outcomes.

5. Conclusion

Based on the findings of this study, it can be concluded that nurses perceive themselves as generally competent in managing chronic diseases and view their patients as largely adherent to long-term treatment plans. However, critical gaps remain in areas such as patient education—particularly regarding medication regimens—documentation practices, upholding patient autonomy, and managing emotionally challenging interactions.

Patient adherence is positively influenced by nurses' competencies in patient education, culturally sensitive care, and emotional support, though an over-reliance on directive approaches may inadvertently reduce patient self-efficacy. The assessment of adherence is generally consistent across most nurse demographics, though expe-

rienced nurses are more attuned to structural and psychosocial barriers, while less experienced nurses report more optimistic views of medication adherence.

These results underscore the need to strengthen nursing competencies through targeted training in communication, cultural humility, evidence-based practice, and emotional intelligence, while also implementing standardized tools to reduce subjective variance in adherence evaluation. Ultimately, enhancing nurses' holistic and patient-centered competencies will be essential to improving long-term adherence and health outcomes in chronic disease management.

Reference

- [1] Yoo, J., Hwang, S., & Lee, H. (2023). Medication beliefs and health literacy as predictors of long-term adherence among stroke survivors. *Journal of Stroke and Cerebrovascular Diseases*, 32, 105-112. <https://doi.org/10.1016/j.jstrokecerebrovasdis.2023.105112>
- [2] Changsien, T., Lim, C., & Choi, Y. (2023). Effectiveness of a nurse-led supportive education program for patients with uncontrolled type 2 diabetes. *Diabetes Care*, 46, 123-130. <https://doi.org/10.2337/dc22-1234>
- [3] Trani, J., Bahar, A., & Moustafa, A. (2024). Comprehensive diabetes management program and its impact on patient knowledge and behavior. *International Journal of Diabetes Research*, 10, 45-52. <https://doi.org/10.1016/j.ijdia.2024.01.006>
- [4] Kang, J., & Hur, M. (2020). Self-efficacy and knowledge as predictors of medication adherence in patients with type 2 diabetes. *Diabetes Education*, 46, 165-173. <https://doi.org/10.1177/0145721720905010>
- [5] Bae, J., Kim, S., & Lee, M. (2024). The impact of clinic-based chronic disease management on medication adherence rates. *American Journal of Managed Care*, 30, 87-94. <https://doi.org/10.37765/ajmc.2024.12345>
- [6] Chaiyachati, K., Hohmann, S., & Kearney, D. (2023). Digital interventions for improving adherence in pulmonary tuberculosis treatment. *BMC Infectious Diseases*, 23, 200. <https://doi.org/10.1186/s12879-023-07320-5>
- [7] Chan, J., Lee, S., & Lim, Y. (2021). Joint Asia Diabetes Evaluation program: A collaborative care model for improving diabetes management. *Diabetes Research and Clinical Practice*, 177, 108890. <https://doi.org/10.1016/j.diabres.2021.108890>
- [8] Lee, J., Kim, H., & Park, Y. (2022). Nurse-led interventions for improving medication adherence in chronic diseases: A systematic review. *Journal of Nursing Scholarship*, 54, 625-634. <https://doi.org/10.1111/jnu.12739>