

The Impact of Watson's Humanistic Care Theory Model Nursing on HAMA and HAMD Scores and CD4+T Lymphocytes in Patients with Hypertension and AIDS

Tingting Yin*

Nanjing Jiangning Hospital, Nanjing 211100, Jiangsu, China

**Author to whom correspondence should be addressed.*

Copyright: © 2026 Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0), permitting distribution and reproduction in any medium, provided the original work is cited.

Abstract: *Objective:* To analyze the impact of Watson's humanistic care theory model nursing on HAMA and HAMD scores and CD4+T lymphocytes in patients with hypertension and AIDS. *Methods:* The patients studied in this article are all patients with hypertension and AIDS admitted to the hospital. The start time of selecting research subjects is January 2022, and the end time is December 2024. A total of 60 research subjects were selected and divided into equal groups using the random number table method. The observation group ($n = 30$, using Watson's humanistic care theory model nursing methods) and the control group ($n = 30$, using conventional intervention methods). The intervention effect was evaluated by assessing HAMA and HAMD scores, quality of life, immune function and blood pressure indicators, and nursing satisfaction was calculated. *Results:* The HAMA and HAMD scores of the two groups showed a decreasing trend. Through comparison and analysis, the observation group was at a lower level than the control group, $P < 0.05$. After intervention, the immune function values of the two groups showed an increasing trend. Through comparison and analysis, the observation group was at a higher level than the control group, $P < 0.05$. After intervention, the blood pressure indicators of the two groups showed a decreasing trend. Through comparison and analysis, the observation group had a lower value than the control group in this study, $P < 0.05$. After intervention, the quality of life of the two groups showed an increasing trend. Through comparison and analysis, the observation group had a lower value than the control group in this study, $P < 0.05$. The nursing satisfaction of the cases in the observation group was at a higher level than the actual data of the control group in this study, $P < 0.05$. *Conclusion:* Adopting Watson's humanistic care theory model for nursing care for patients with hypertension and AIDS can effectively reduce their adverse reactions, lower blood pressure indicators, help improve immune function, and promote the quality of life and nursing satisfaction. It is worthy of application and promotion.

Keywords: Hypertension; Watson's humanistic care theory model nursing; AIDS; Application value

Online publication: June 26, 2026

1. Introduction

In clinical practice, hypertension and AIDS are common diseases, which increase the difficulty of treatment when they occur in the same patient ^[1]. Hypertension is a chronic disease. Abnormally elevated blood pressure in patients leads to progressive damage and increases the risk of cardiovascular and cerebrovascular diseases ^[2]. Human immunodeficiency virus is the main cause of AIDS, damaging the immune system and making patients prone to opportunistic infections and tumor invasion ^[3]. Patients with hypertension and AIDS have varying degrees of psychological stress and social problems ^[4]. With the development of society and the continuous improvement of medical standards, Watson's humanistic care theory model has been widely used. The essence of nursing care in this nursing model is humanistic care, focusing on the emotional interaction and humanistic care between nurses and patients. Watson's humanistic care theory model nursing covers ten care elements. In clinical nursing practice, it can guide nursing staff to fully understand and meet the patient's nursing needs from a holistic perspective. In addition to patient disease treatment, it is also necessary to increase the importance of patients' psychological feelings, emotional needs, and social support, and provide patients with a series of active and effective nursing services, which will help improve their nursing level. This article selects patients with hypertension and AIDS (the main range of the research time: January 2022 to December 2024) for analysis, and observes the application value. The report is as follows.

2. Materials and methods

2.1. General information

The samples used in this study are all patients with hypertension and AIDS treated in the hospital. The start date of sample selection is January 2022, and the deadline is December 2024. There are a total of 60 samples. The random number table method is used to divide all samples into 2 groups. There were 30 patients in each group. The gender data of the observation group showed that there were 18 male patients and 12 female patients. The age data showed that the patients were all older than 23 years old and younger than 75 years old (including 23 years old and 75 years old), and the average age was (49.31 ± 5.67) . The duration of hypertension shows that the lower and upper limit values are 2 to 8 years, and the average value is (5.11 ± 0.67) years. The gender data of the control group showed that there were 16 male patients and 14 female patients. The age data showed that the patients were older than 24 years old and younger than 78 years old (including 24 years old and 78 years old), and the mean age was (51.06 ± 6.06) . The duration of hypertension shows that the lower limit value and upper limit value are 1 to 9 years, and the average value is (5.23 ± 0.89) years. After analyzing and comparing the basic information of the two groups of patients, it was found that the differences were not obvious and could be analyzed and compared.

2.2. Method

The control group used conventional intervention methods to carry out disease education, inform patients about hypertension and AIDS, guide patients to eat reasonably, instruct them to quit smoking and drinking, and exercise reasonably. Explain the precautions and do a good job of disinfection to prevent infection.

The observation group used Watson's humanistic care theory model nursing methods. (1) Establish a nursing team: identify the team members, including: psychological counselors, head nurses, responsible nurses, etc., strengthen nursing knowledge training, and become familiar with the nursing process. Carry out occupational exposure protection drills and actively teach disease-related laws. (2) Health education:

maintain good communication with patients, and use text, pictures, or video materials to popularize disease knowledge, including: causes, hazards, clinical symptoms, prevention and treatment methods, etc. Focus on explaining the importance of blood pressure control, clarify their antihypertensive drugs, and guide them to actively participate in treatment and care. (3) Condition care: appropriately increase the number of ward rounds, closely observe the physical and mental status, and understand the clinical symptoms. Once dizziness symptoms occur, rest time must be arranged appropriately to avoid an increase in blood pressure. Record symptom changes, blood pressure conditions, patient heart rate, etc. in detail, and deal with any abnormalities in a timely manner. (4) Environmental care: Keep the ward clean and tidy, do a good job of ventilation, and maintain indoor air circulation. Reasonably adjust the indoor temperature and humidity and disinfect regularly. Instruct family members not to make any noise, reduce the sound of the equipment, and improve their comfort. (5) Psychological care: actively communicate with patients, clarify their psychological emotions, and inform them of the impact of emotions and blood pressure. Use music therapy to divert their attention, share successful cases of disease control with patients, enhance their confidence in treatment, and reduce negative emotions. (6) Medication guidance: Inform them of the usage and dosage of antihypertensive drugs, explain possible adverse reactions, and encourage them to be mentally prepared. At the same time, the patient is instructed to follow the doctor's instructions to take medication, not to change the dosage of the medication without authorization, and guide the patient to actively measure blood pressure. (7) Life guidance: Reasonably control the patient's diet, assess his or her dietary preferences, formulate a targeted diet plan, follow the principles of low-salt and low-fat, and eat more foods rich in vitamins. Carry out appropriate aerobic exercise, such as walking and Tai Chi, to form healthy living habits.

2.3. Observation indicators

(1) Compare psychological status, including: HAMA and HAMD scores ^[5]. (2) Compare immune function, including: CD3+ value, CD4+ value, CD8+ value ^[6]. (3) Compare blood pressure indicators, including: diastolic blood pressure values and systolic blood pressure values ^[7]. (4) Compare the quality of life, with each score being 100 points. (5) Compare nursing satisfaction, satisfaction = satisfaction ratio + basic satisfaction ratio.

2.4. Statistical methods

SPSS 22.0 software was used for data processing and analysis. For small sample research, Shapiro-Wilk analysis was used to test the normality of the measurement data. Measurement data that conformed to the normal distribution were described by the mean $\pm$ standard deviation. Count data are expressed as cases (%). The measurement data between the two groups were compared using the independent samples t-test, and $P < 0.05$ was considered a statistically significant difference.

3. Results

3.1. Comparing psychological states

After intervention, the HAMA and HAMD scores of the two groups showed a downward trend (**Table 1**). Through comparison and analysis, the measured scores of the cases in the observation group were lower than those of the control group. There was a difference between the two groups, $P < 0.05$.

Table 1. Comparison of the psychological states of the two groups (Mean $\pm$ SD)

Group	HAMA score (points)		HAMD score (points)	
	Before intervention	After intervention	Before intervention	After intervention
Control group ($n = 30$)	20.87 $\pm$ 4.46	12.19 $\pm$ 2.67	24.31 $\pm$ 2.51	14.29 $\pm$ 3.51
Observation group ($n = 30$)	20.21 $\pm$ 4.29	10.41 $\pm$ 3.19	23.98 $\pm$ 2.68	12.34 $\pm$ 1.42
<i>t</i>	0.584	2.343	0.492	2.820
<i>P</i>	0.561	0.022	0.624	0.006

3.2. Comparing immune function

After intervention, the immune function values of the two groups showed an increasing trend (**Table 2**). Through comparison and analysis, the measured scores of the cases in the observation group were higher than those of the control group. There was a difference between the two groups, $P < 0.05$.

Table 2. Comparison of immune function between two groups (Mean $\pm$ SD)

Group	CD3+ (%)		CD4+ (%)		CD8+ (%)	
	Before intervention	After intervention	Before intervention	After intervention	Before intervention	After intervention
Control group ($n = 30$)	0.81 $\pm$ 0.15	1.12 $\pm$ 0.06	6.45 $\pm$ 0.36	8.41 $\pm$ 1.36	0.82 $\pm$ 0.15	1.12 $\pm$ 0.06
Observation group ($n = 30$)	0.82 $\pm$ 0.13	1.58 $\pm$ 0.12	6.27 $\pm$ 0.59	13.22 $\pm$ 1.41	0.84 $\pm$ 0.16	1.37 $\pm$ 0.05
<i>t</i>	0.275	18.779	1.426	13.448	0.499	17.532
<i>P</i>	0.783	0.000	0.159	0.000	0.619	0.000

3.3. Compare blood pressure indicators

After intervention, the blood pressure indicators of the two groups showed a decreasing trend (**Table 3**). Through comparison and analysis, the measurement scores of the cases in the observation group were lower than those of the control group in this study. There was a difference between the two groups, $P < 0.05$.

Table 3. Comparison of blood pressure indicators between the two groups (Mean $\pm$ SD)

Group	Diastolic blood pressure (mmHg)		Systolic blood pressure (mmHg)	
	Before intervention	After intervention	Before intervention	After intervention
Control group ($n = 30$)	112.54 $\pm$ 7.69	87.75 $\pm$ 4.23	162.74 $\pm$ 9.39	135.46 $\pm$ 7.33
Observation group ($n = 30$)	109.27 $\pm$ 7.38	81.61 $\pm$ 4.49	161.38 $\pm$ 9.25	121.51 $\pm$ 7.42
<i>t</i>	1.680	5.458	0.565	7.325
<i>P</i>	0.098	0.000	0.574	0.000

3.4. Comparing quality of life

After intervention, the quality of life of the two groups showed an increasing trend (**Table 4**). Through comparison and analysis, the measurement scores of the cases in the observation group were higher than those of the control group in this study. There was a difference between the two groups, $P < 0.05$.

Table 4. Comparison of quality of life between the two groups (Mean $\pm$ SD)

Group	Social relations (points)		Mental state (minutes)		Physical function (minutes)		Physiological functions (points)	
	Before intervention	After intervention	Before intervention	After intervention	Before intervention	After intervention	Before intervention	After intervention
Control group ($n = 30$)	53.27 $\pm$ 2.81	69.46 $\pm$ 3.73	58.35 $\pm$ 3.46	68.41 $\pm$ 3.77	55.63 $\pm$ 4.75	63.29 $\pm$ 4.53	59.79 $\pm$ 2.83	65.64 $\pm$ 3.38
Observation group ($n = 30$)	53.56 $\pm$ 1.38	74.25 $\pm$ 3.96	58.27 $\pm$ 3.53	72.89 $\pm$ 3.53	55.49 $\pm$ 4.35	79.41 $\pm$ 5.56	59.45 $\pm$ 2.19	70.76 $\pm$ 3.48
t	0.507	4.822	0.088	4.751	0.119	12.311	0.520	5.780
P	0.613	0.000	0.929	0.000	0.905	0.000	0.604	0.000

3.5. Compare nursing satisfaction

After intervention, the nursing satisfaction of the cases involved in the observation group was higher than the actual data of the control group in this study, and there was a difference between the two groups, $P < 0.05$ (Table 5).

Table 5. Comparison of nursing satisfaction between the two groups [n/(%)]

Group	Satisfied	Basically satisfied	Not satisfied	Satisfaction (%)
Control group ($n = 30$)	11(36.67)	12(40.00)	7(23.33)	23(76.67)
Observation group ($n = 30$)	15(50.00)	14(46.67)	1(3.33)	29(96.67)
χ^2	—	—	—	5.192
P	—	—	—	0.022

4. Discussion

In clinical practice, hypertension and AIDS are diseases with increasing prevalence, seriously affecting their physical and mental health [8]. The simultaneous onset of hypertension and AIDS leads to reduced immune function, increased risk of infection, and higher risk of gastrointestinal lesions and cardiovascular disease, which can even threaten life safety. During the disease control period, in addition to targeted treatment, high-quality nursing methods are also needed to improve its prognosis. By providing patients with Watson's humanistic care theory model care, strengthening the care of the disease itself and psychological aspects will help reduce negative emotions and improve the overall nursing effect.

The study found that the HAMA and HAMD scores of the two groups showed a decreasing trend. Through comparison and analysis, the measurement scores of the cases in the observation group were at a lower level than those of the control group, $P < 0.05$. Analysis of reasons: Implementing Watson's humanistic care theory model nursing, strengthening disease treatment and health education, maintaining good communication, and effectively channeling negative emotions can improve the psychological state. After intervention, the immune function values of the two groups showed an increasing trend. Through comparison and analysis, the measured scores of the cases in the observation group were at a higher level than those of the control group, $P < 0.05$. Analysis of the reasons: Implementing Watson's humanistic care theory model nursing, assessing the patient's immune function, building trust with the patient through a caring relationship, and prompting the patient to cooperate with various nursing tasks to stabilize the disease and improve the immune function. After intervention, the blood pressure indicators of the two groups showed

a decreasing trend. Through comparison and analysis, the measurement scores of the cases in the observation group were at a lower level than those of the control group in this study, $P < 0.05$. Analysis of reasons: Implementing Watson's humanistic care theory model nursing, the core of which is humanistic care, real-time monitoring of the patient's blood pressure level, and controlling it within a stable range through medication intervention, dietary intervention, exercise, and other methods, which helps to improve the quality of care. After intervention, the quality of life of the two groups showed an increasing trend. Through comparison and analysis, the measurement scores of the cases in the observation group were at a lower level than those of the control group in this study, $P < 0.05$. Analyze the reasons: Implement the Watson Humanistic Care Theory model nursing, pay attention to the patient's heart rate, blood pressure, and symptom changes, identify abnormal situations and deal with them in time, improve the patient's mental state while maintaining blood pressure stability, thereby improving their quality of life. The nursing satisfaction of the cases in the observation group was at a higher level than the actual data of the control group in this study, $P < 0.05$. Analysis of reasons: Implementing Watson's humanistic care theory model nursing, taking patients as the main body of care, providing them with professional and efficient care methods, which can form a healthy lifestyle, promote recovery, and further improve nursing satisfaction.

5. Conclusion

In summary, with the effective implementation of Watson's humanistic care theory model nursing, it can significantly reduce the negative emotions of patients with hypertension and AIDS, improve immune function, and improve the quality of life and nursing satisfaction, which is worth learning from.

About the author

Yin Tingting (1990.01-) female; undergraduate; Chinese; supervisor nurse; research direction: infectious diseases, AIDS, tuberculosis, hepatitis nursing.

Disclosure statement

The author declares no conflict of interest.

References

- [1] He XP, 2023, The Impact of Watson's Humanistic Care Theory Model Nursing on HAMA and HAMD scores and CD4+ T Lymphocytes in Patients with Hypertension and AIDS. *Knowledge on Prevention and Treatment of Cardiovascular Diseases*, 13(30): 42–45.
- [2] Tan SL, Zhang Y, Yang Y, et al., 2023, Current Status of Research on Antihypertensive Medication Compliance in Patients with AIDS and Hypertension. *Smart Health*, 9(5): 140–143.
- [3] Zhou F, 2024, The Impact of Watson's Humanistic Care Theory Model Nursing on Patients with Hypertension and AIDS. *Electronic Journal of Cardiovascular Diseases of Integrated Traditional Chinese and Western Medicine*, 12(3): 56–59.
- [4] Lin LL, Chen JX, 2022, Application of Nursing Safety Intervention Mechanism Based on Watson's Humanistic

- Care Theory in Patients with AIDS and Heart Failure. Knowledge on Prevention and Treatment of Cardiovascular Diseases, 12(29): 72–75.
- [5] Feng B, Xia Y, Shi AL, et al., 2024, Study on the Effect of ClientCentered Therapy on Negative Emotions and Coping Styles in Patients with HIV/AIDS Complicated by Surgical Treatment. Psychological Monthly, 19(21): 184–186.
- [6] Liu GL, 2024, The Impact of Nursing Intervention Guided by Stress System Theory on Coping Style and Compliance Behavior of AIDS Patients. Primary Medicine Forum, 28(31): 90–93.
- [7] Wang CN, Zhang YX, Zhuge WJ, et al., 2024, Application of Comprehensive Nursing Model in Hospitalized AIDS Patients. Zhejiang Clinical Medicine, 26(10): 1563–1564 + 1566.
- [8] Pan T, Duan WQ, Chen WY, et al., 2024, The Impact of Block Diagram Education Combined with “AI” Reading Materials on Disease Perception Level and SelfManagement Ability of AIDS Patients. Contemporary Nurses (First Issue), 31(10): 116–119.

Publisher’s note

Bio-Byword Scientific Publishing remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.