



## **Discussion on the Improvement of Negative Emotions of Aids Patients by Psychological Nursing**

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### **Abstract**

Stress and psychological trauma treatment in AIDS patients is an important consideration because psychological distress significantly affects these patient's treatment response. This research investigates how psychological nursing intervention is applied to reduce the negative emotions of the AIDS patients, in order to generate evidence for improved care solutions. Altogether, 60 AIDS patients receiving treatment in our hospital from March 2022 to March 2024 were included in the study and we conducted a retrospective study. The participants were divided into two groups based on the nursing plans received: an experiment group of 30 patients receiving routine nursing and an experimental group of 30 patients receiving psychological nursing. Emotional states, hope, coping styles, psychological distress, stress response and treatment adherence were evaluated in the study. It was also found that post nursing self rating SAS and SDS scores of the observation group were somewhat lower compared to the control group of ( $P < 0.05$ ). Increased observation compliance rates of treatment were seen with statistically significant test results of  $P < 0.05$ . Moreover, the observation group enhanced positive attitude, behavioral reaction, and intimacy ( $P < 0.05$ ) and decreased psychological disturbance and stress level than the control group. These results stress on the positive role of psychological nursing in eliminating the negativity factor, improving coping behavior, and encouraging camaraderie amongst AIDS patients. Underutilizing psychological nursing in agendas of daily care voluminously offers the potential of enhancing the psychological health and direct sorting outcome of consumers, insisting on their further use in practice. Carrying out psychological nursing work among AIDS patients can effectively reduce their negative

emotions and stress responses, improve their hope level and cooperation degree, which has the value of further popularization and application.

**Key words:** AIDS; psychological care; negative emotion; stress response; hope level

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## Introduction

AIDS is a chronic, progressive infectious disease characterized by HIV, which severely weakens the immune system and threatens its ability to fight out other infections or malignancy [1]. In the world today there continues to be immense social impact of AIDS, many people are still living with the disease even with the available antiretroviral therapy (ART). Although ART controls viral replication and increase life span of the client it is not a cure for the virus meaning that a client has to take the treatment for the rest of his or her life and constant checkups [4]. Such concepts as HIV disease latency at the early stages of infection and complete absence of clinical symptoms make the diagnostics and overall treatment and prognosis of the illness even more challenging [3].

Patients with AIDS often feel a range of fears, depression, and anxiety after the AIDS diagnosis, and they are afraid to be stigmatized by society. That is Severely, psychological problems potentially negatively affect patients' compliance with prescribed treatments, dampen the ability to combat diseases, and lower their health-related standard of living. These emotions sometimes are exhibited in what could be called a severe clinical level and such behaviours include self-harming and even antagonism, making a case for proper multi-faceted intervention measures [4]. Authoritative nursing models mainly address the diseased somatic aspect and pay scant attention on the psychological states of clients. This may amplify the negative feelings and hamper the healing journey and this is due to this oversight. Psychological nursing, which is a form of psychological intervention established from the synthesis between psychological theories and nurses' procedures, has as its objective to give interventions oriented for the patients' mental health as well as physical. Through promoting psychological strengthening, psychological nursing may contribute to patients' ability to address life with AIDS, thereby affecting their medication compliance rate as well as illness and life prognosis [5].

The patients' psychological suffering is an issue that has received relatively little attention and still is not sufficiently addressed. While ART has transformed the physical wellness care for AIDS patient it has other psychological factors associated with the disease that diminish the full utilization of ART [2]. These challenges require the adoption of new and complex care frameworks in nursing that would undertake the medical and psychosocial aspects of well being in a bid to transform patient comprehensive health. Although qualitative research on the clinical efficacy of ART to slow HIV disease progression exists, few quantitative investigations have focused on the ability of psychological nursing interventions to ameliorate the negative affective responses resulting from AIDS [6]. Current experimental approaches fail to consider mental coping as a factor for increasing the compliance, as well as a way to provide increased quality life. Moreover, the evidence drawn from RS settings is scarce, and prejudice and people's isolation

are more common, and there is insufficient access to adequate psychological assistance.

The purpose of this research is to assess the effectiveness of psychological nursing interventions with regard to the reduction of negative affect and the improved psychosocial quality of life of the clients diagnosed with AIDS. Descriptive case studies were performed with 60 patients with AIDS diagnosed and treated between March 2022 and March 2024. The findings are intended to raise awareness of the importance of psychological nursing and to guide the inclusion of supportive care for AIDS patients in clinical practice.

## 2. METHODOLOGY

### 2.1 Data

A total of 60 cases of AIDS patients admitted to our hospital were selected as the research objects. The sample selection period was between March 2022 and March 2024. The medical records of the patients were retrospectively analyzed, and the patients were grouped according to the nursing plans. Each group included 30 cases. Analyzing the data in Table 1, there was no significant difference between the two groups of AIDS patients in the data presented in the study, with  $P > 0.05$ .

Table 1: Comparison of the data of two groups of AIDS patients (n=30)

group	sex (n)		age)	Disease duration (years)	Transmission route (n)		
	male	female			opposite sex	homosexual	unknown
control group	16	14	39.53±1.20	3.83±0.38	12	10	8
observation group	18	12	39.57±1.25	3.90±0.31	14	11	5
$X^2/t$	0.272		0.252	0.997	0.272	0.073	0.884
P	0.602		0.802	0.323	0.602	0.787	0.347

Inclusion criteria: Those who were consistent with the relevant content involved in the AIDS diagnostic criteria in the 2021 edition of the "Guidelines for Diagnosis and Treatment of AIDS in Kingdom of Saudi Arabia"; adults under the age of 65; those who were in a good state of consciousness and had normal communication and understanding skills; those with more than 1 month of the virus diagnosis and treatment time.

Exclusion criteria: Those with incomplete medical records or unable to accept follow-up activities; those with abnormal cognitive function and mental illness; those with other physical diseases.

## 2.2 Methods

Control group: All the subjects in this group received routine nursing programs. ① Nursing staff carried out publicity and education activities by distributing brochures and playing educational videos and other ways based on patients' understanding ability and education level and so on, focusing on disease hazards and the importance of medication according to doctor's advice. The method of drug use and precautions were introduced to patients in detail, emphasizing the importance of life-long drug use for disease control, and patients were advised not to increase or decrease drugs by themselves; detailed information on adverse reactions and coping methods that may occur after drug use introduce was performed. ② The nursing staff should instruct patients to increase the intake of high-quality protein in their daily diet, and eat a balanced diet to ensure the nutritional status of the body; and nursing staff should advise patients to quit smoking and drinking, and form good living and exercise habits; and nursing staff should inform patients not to share tableware, toiletries, etc., with others, detailing how the disease is transmitted. ③ The nursing staff should give patients understanding and comfort, introduce ideal cases of disease control to them, and help them build confidence in disease treatment.

Observation group: The subjects included in this group applied psychological nursing, the details are as follows:

(1) Nurses should sort out AIDS-related knowledge and make them into brochures, PPTs, videos, etc. with pictures and texts. The content of publicity and education should include the incidence of AIDS in Kingdom of Saudi Arabia, treatment plans, the importance of antiviral treatment, common adverse reactions of drugs, and national relevant supporting policies for AIDS treatment, the importance of rational drug use to disease treatment, etc. The health education methods were used to help patients establish a correct understanding of AIDS, reduce their inner tension and anxiety, and improve compliance. The patients were advised to take high-quality protein, vitamins and other foods in their daily diet to ensure the nutritional status of the body and improve immune function. Because there is still discrimination against AIDS in the current society, which reduces the level of social support of AIDS patients, making them extremely prone to negative emotions during treatment. Nurses should detect abnormal emotions of patients in time and implement psychological counseling as soon as possible. Nurses should also repeatedly emphasize the importance of following the doctor's advice, encourage patients to vent their negative emotions to relatives, friends, medical staff, etc., introduce cases with ideal prognosis to them, and help them build confidence in disease treatment.

(2) It was necessary to instruct the patients to carry out relaxation training, adjust their position to standing or sitting, instruct them to inhale and puff up their abdomen, inhale slowly and deeply through the nose, and keep their mouths closed during the exhalation process; and instruct them to contract their abdomen to a large extent during exhalation, exhale through the mouth; instruct the patients to carry out muscle relaxation training, starting from the facial muscles and gradually transitioning to the foot muscles. If the patients had limb movement disorder, the disabled limb could be skipped. During the process of muscle relaxation training, abdominal breathing was used, the muscles were tightened during inspiration

and gradually relaxed during exhalation. The tense movements of each group of muscles were maintained for 10 seconds, and then relaxed for 30 seconds. During this period, the patients were instructed to feel the feeling of muscle tension and relaxation, muscle relaxation training was carried out once a day, 3 times per cycle, and each training time was 15 minutes. The nursing staff should guide patients to carry out meditation training, first create a comfortable and quiet environment for them, ask patients to maintain a relaxed state to start meditation, and play beautiful and soothing music for them, guide patients to imagine the music scene, guide patients to imagine the breathing state, breathe with eyes closed, and relax during the breathing process. At the same time, nursing staff should guide patients to empty their minds, conduct meditation training twice a week, each time for 20 minutes; play beautiful and quiet music for patients in the ward, introduce music emotion and artistic conception and so on in detail, and guide patients to appreciate music.

(3) The medical staff should introduce the importance of support from relatives and friends to patients' spouses, parents, and children in improving patients' negative emotions, and use the power of family members, relatives and friends to provide them with spiritual sustenance and improve their courage and confidence in treatment. The medical staff should communicate with relatives and friends of patients, introduce in detail the relevant precautions in the process of language communication with patients, and guide relatives and friends to encourage and care for patients. The medical staff should also evaluate and investigate the family situations of the patients, and inform the family members that the encouragement of the family members can reduce the negative emotions of the patients, which can increase the enthusiasm of the family members to participate. The medical staff should provide detailed introductions to the family members on the daily nursing operation methods and precautions related to protection and so on, so as to improve the care of the family member ability. The Internet, TV and other channels should be used to carry out AIDS-related knowledge publicity and education, so as to improve the public's awareness of the disease, reduce their discrimination against patients, and improve the psychological and social burden of patients. It was necessary to regularly organize patients to participate in patient activities and encourage them to develop their own preferences, diverting attention and alleviating negative emotions.

(4) The medical staff should introduce the importance of reasonable diet and work and rest habits to the treatment of the disease in detail. For those with sleep disorders, they should be instructed to use a small amount of sleep-promoting drugs as prescribed by the doctor. Moderate exercise can improve the body's blood circulation status and immune function. At the same time, it is beneficial to vent negative emotions. Nurses should guide patients to carry out appropriate exercise, formulate exercise plans according to their exercise preferences and physical condition and others, and ask family members to accompany patients to carry out exercise.

### **1.3 Observation indicators**

(1) The changes in the emotional state of the two groups of AIDS patients were analyzed. Before and after the nursing activities, the anxiety and depression self-rating scales (SAS, SDS) were used for

assessment. The above scales each cover 20 items, and the scoring range is 1-4 points. The lower the score, the better the emotional state of the patients.

(2) The improvement of the compliance of the two groups of patients was counted, and the medication compliance questionnaire of AIDS patients was used for evaluation, covering regular review, medication as prescribed by the doctor, reasonable diet, safe sex, good work and rest, no exposure to psychoactive substances, and good mood. Compliance was the sum of complete compliance rate and partial compliance rate. Complete compliance meant that the above 6 items were completely met, partial compliance meant that 3-5 items were met, and non-compliance meant that 2 or less items were met.

(3) The changes in the hope level of patients in the two groups were observed, and the Herth Hope Index (HHI) was used to assess the changes before and after the implementation of nursing activities. The scale covers the dimensions of positive attitudes towards the future and the reality, behavioral attitudes, and maintaining close relationships with others, with 12 items in total, and the scoring range is 1-4 points. The higher the score, the more dominant.

(4) The improvement of the patients' coping styles and psychological distress were recorded, and it was evaluated with the Coping Style Questionnaire (CCMQ) before and after the implementation of nursing activities, covering the dimensions of confrontation, surrender, and avoidance, and the scores range from 8 to 32, 5 to 20 and 7 to 28, respectively. Among them, the higher the score of the face dimension, the more dominant, and the lower the score of the surrender and avoidance dimension, the more dominant. Before and after nursing, the Kessler Psychological Distress Scale (K10) was used to assess the degree of psychological distress of the patients. The scale involves a total of 10 items, all of which are rated from 1 to 5 points, with a full score of 10 to 50 points, and the lower the score, the more dominant.

(5) The changes in stress responses between the two groups were analyzed. Before and after nursing, the Psychological Stress Response Questionnaire (SRQ) was used for evaluation, covering emotional response dimension, physical response dimension, and behavioral response dimension. It contains 28 items in total, and all apply 5-level scoring. The full score is 28-140 points, and the lower the score, the more dominant.

## **2.4 Statistical processing**

The relevant data in the study were all processed by SPSS20.0. The measurement data of the two groups of AIDS patients: the expression form was  $(\bar{x} \pm s)$ , and the results were obtained by the t test; the count data of the two groups: the expression form was "%", and the results were obtained by the Chi-square test. If it showed  $P < 0.05$ , the difference between the data was statistically significant.

## **3. RESULTS**

### **3.1 Comparison of emotional states between the two groups**

Analyzing the data in Table 2 and Figure 1, the SAS score value and SDS score value of the included patients in the observation group before nursing were compared with those of the control group, the difference was not significant, with  $P>0.05$ ; after nursing, the SAS and SDS score values of the patients in the observation group were significantly lower than those of the control group, with  $P<0.05$ .

**Table 2: Comparison of emotional state changes in two groups of AIDS patients (n=30, points)**

group	SAS score		SDS score	
	Before Nursing	after care	Before Nursing	after care
control group	51.17±3.16	40.30±2.52	49.77±4.07	41.63±2.30
observation group	51.23±3.35	31.93±1.23	49.83±4.12	33.03±1.75
t	0.153	16.227	0.113	16.054
P	0.879	0.001	0.910	0.001

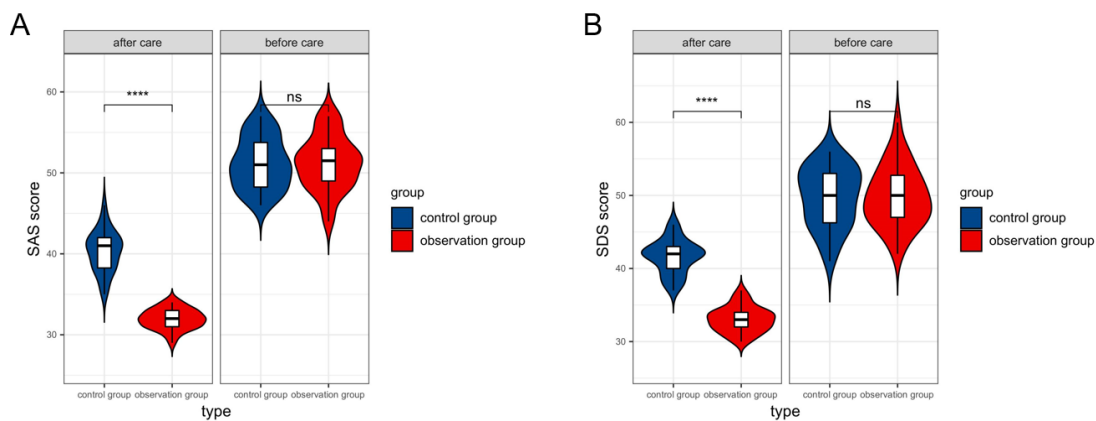


Figure 1

1 : Analysis of two groups of emotional states

Note: "\*\*\*\*" represents  $P<0.0001$ .

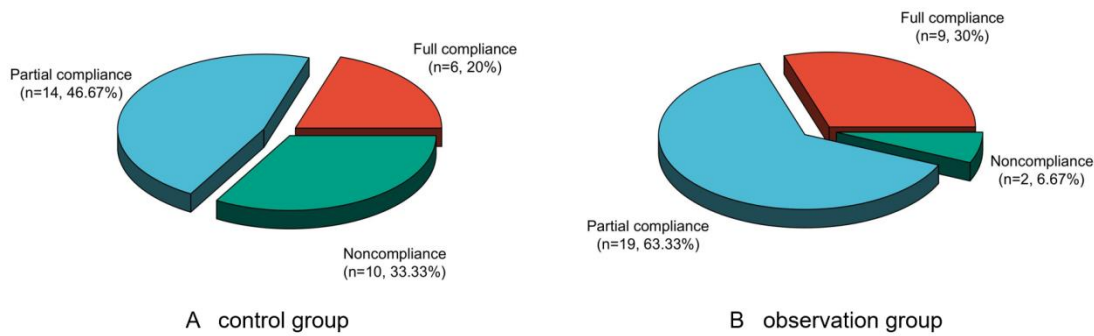
### 3.2 Comparison of compliance between the two groups

Analyzing the data in Table 3 and Figure 2, the compliance of AIDS patients in the observation group was significantly higher than that in the control group, with  $P<0.05$ .

**Table 3: Comparing the compliance of AIDS patients between the two groups (n, %)**

group	no	fully compliant	partial compliance	non-compliance	compliance
control group	30	6	14	10	66.67
observation group	30	9	19	2	93.33

$\chi^2$	-	-	-	-	6.667
P	-	-	-	-	0.010



Figure

2 : Analysis of compliance of AIDS patients between the two groups

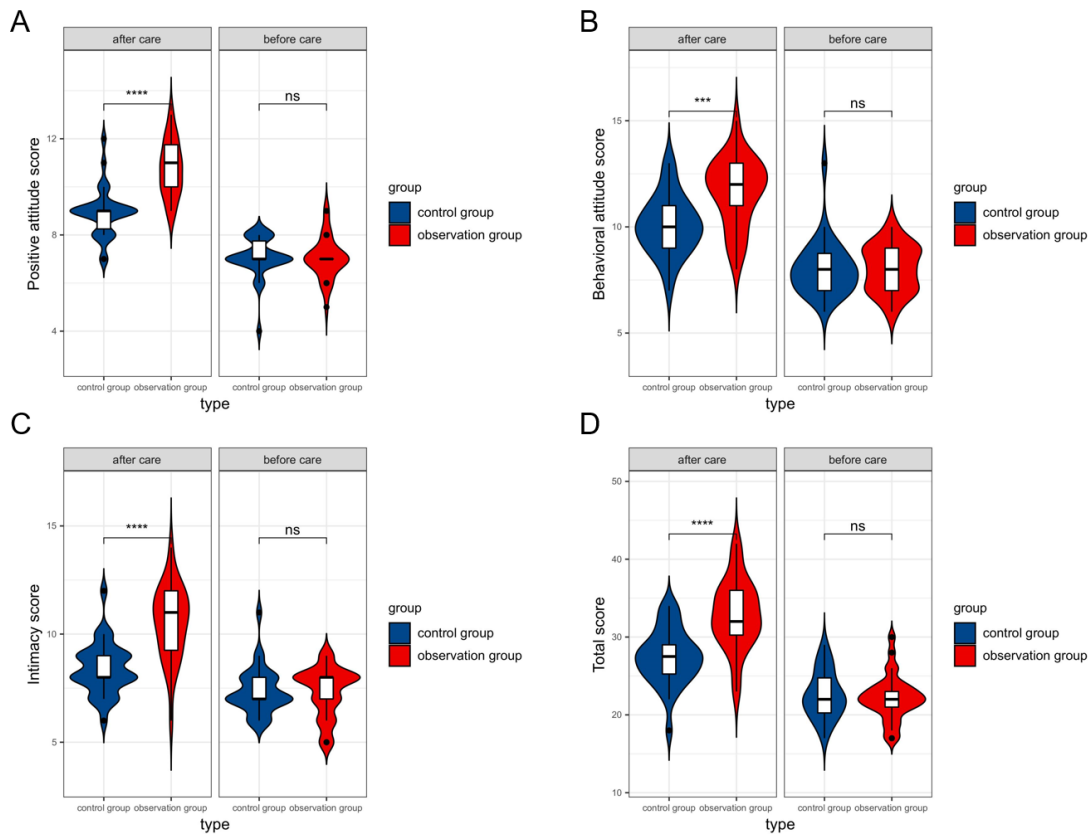
### 3.3 Comparison of hope level between the two groups

Analyzing the data in Table 4 and Figure 3, before nursing, the positive attitude score, behavioral attitude score, intimacy score and total score of the observation group were not significantly different from those of the control group, with  $P > 0.05$ ; after nursing, compared with the control group, the scores of each dimension and the total score of HHI of subjects in the observation group were significantly higher, with  $P < 0.05$ .

**Table 4: Comparison of the changes in the hope level of AIDS patients between the two groups (n=30, points)**

group	positive attitude score		behavioral attitude score		Intimacy Score		total score	
	Before Nursing	after care	Before Nursing	after care	Before Nursing	after care	Before Nursing	after care
control group	7.07±0.83	8.93±1.01	8.03±1.30	10.07±1.3	7.37±1.07	8.40±1.19	22.57±3.0	27.43±3.5
				9			0	6
observation group	7.03±0.85	10.77±1.1	8.03±1.10	11.67±1.6	7.33±1.15	10.53±1.6	22.20±2.8	32.90±4.4
		4		3		8	8	0
t	0.239	6.457	0.138	3.932	0.262	5.780	0.209	5.272
P	0.812	0.001	0.891	0.001	0.794	0.001	0.835	0.001





Figure

3 : Analysis of two groups of hope level

Note: "\*\*\*\*" represents  $P < 0.0001$ .

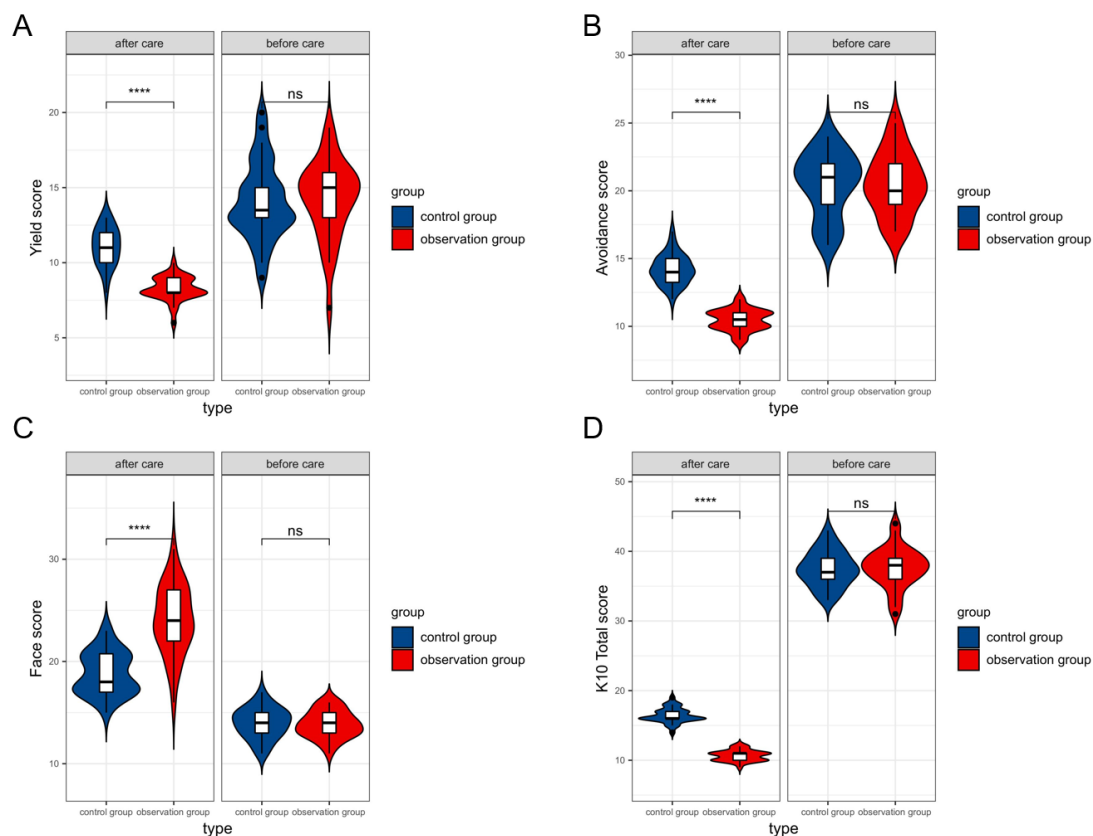
### 3.4 Comparison of coping styles and degree of psychological distress between the two groups

Analyzing the data in Table 5 and Figure 4, before the implementation of nursing activities, there was no significant difference in the yield score, avoidance score, face score, and K10 total score of the two groups, with  $P > 0.05$ ; after the implementation of nursing activities, compared with the control group, the face score of subjects in the observation group was significantly higher than that of the control group, and the yield score, avoidance score and K10 total score were all lower than those of the control group, with  $P < 0.05$ .

**Table 5: Comparison of coping styles and degree of psychological distress of two groups of AIDS patients (n=30, points)**

group	yield score		avoidance score		face rating		K10 total score	
	Before	after care	Before	after care	Before	after care	Before	after care
control group	14.07±2.5	11.07±1.2	20.43±2.3	14.20±1.1	13.97±1.5	18.83±2.0	37.50±2.5	16.43±1.0
observat	14.23±2.5	8.27±0.78	20.53±2.2	10.47±0.7	13.83±1.3	24.07±3.3	37.63±2.8	10.67±0.7

ion	8		9	8	2	5	8	6
group								
t	0.181	9.579	0.135	16.326	0.421	7.401	0.173	24.788
P	0.857	0.001	0.893	0.001	0.676	0.001	0.863	0.001



Figure

4 : Analysis of coping styles and psychological distress in the two groups

Note: "\*\*\*\*" represents  $P < 0.0001$ .

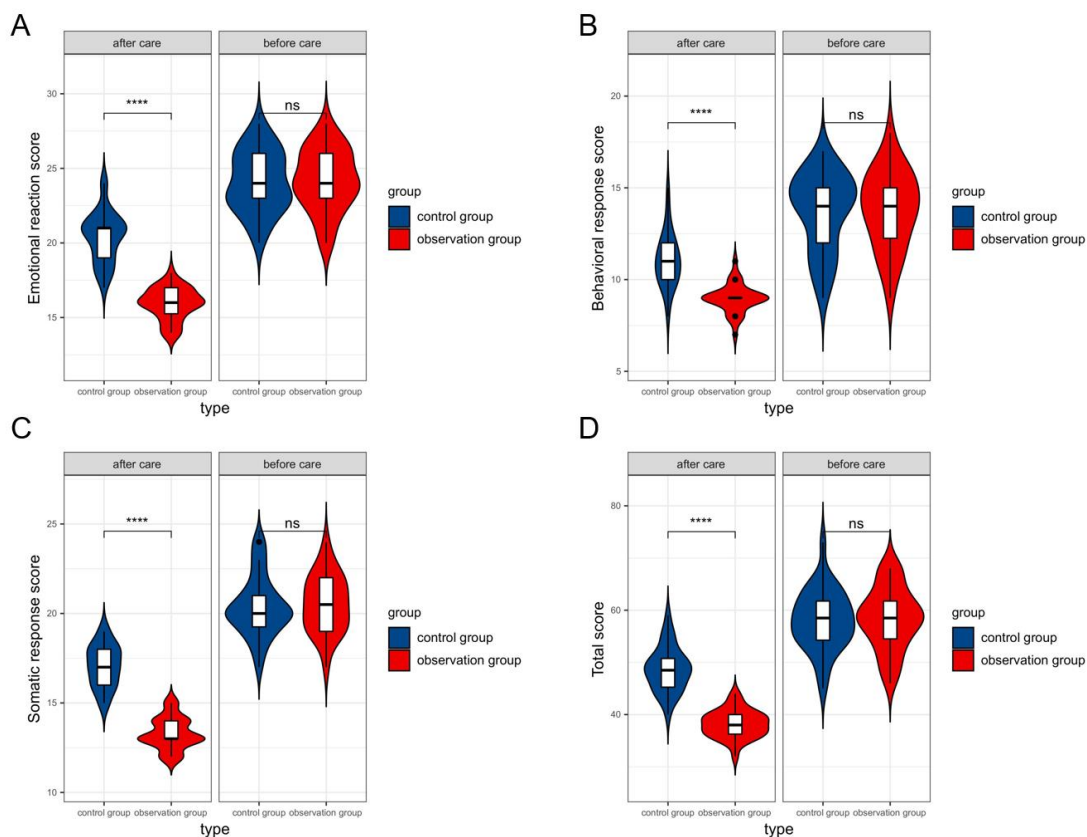
### 3.5 Comparison of stress responses between the two groups

Analyzing the data in Table 6 and Figure 5, before the nursing work, there was no significant difference in the scores of emotional response, behavioral response, physical response and total score between the two groups, with  $P > 0.05$ ; after nursing, both the values of each dimension and the total score of SRQ in the observation group were lower than those of the control group, with  $P < 0.05$ .

**Table 6: Comparison of stress response changes in two groups of AIDS patients (n=30, points)**

group	Emotional Score	Response	Behavioral Score	Response	Somatic Response Score	total score
	Before	after care	Before	after care	Before	after care
	Nursing		Nursing		Nursing	after care

control group	24.10±2.0	20.40±1.6	13.70±2.1	11.07±1.4	20.37±1.6	17.07±1.1	58.07±5.7	48.67±4.2
observation group	24.20±2.0	15.93±1.0	13.80±2.1	8.97±0.76	20.53±1.6	13.30±0.8	58.33±5.9	38.20±2.6
t	0.224	12.206	0.108	6.811	0.338	15.881	0.213	11.364
P	0.823	0.001	0.915	0.001	0.737	0.001	0.832	0.001



Figure

5 : Analysis of the changes in the stress response of the two groups

Note: "\*\*\*\*" represents  $P < 0.0001$ .

#### 4 Discussion

AIDS is a relatively common infectious disease in clinical practice. Immune system disorder and decreased immune function are the main manifestations of the disease. At present, antiviral methods are mainly used to control the progress of the disease, but patients are extremely prone to a series of adverse reactions during the course of medication, which will aggravate their physical and mental pain [6]. Because the condition of AIDS patients is relatively serious, and most patients and social personnel and others have certain misunderstandings and discrimination about the disease, it prompts patients to experience severe anxiety, depression and other emotions, which can affect their treatment compliance and

treatment effects and so on<sup>[7]</sup>. AIDS is a lifelong infectious disease, and patients need lifelong medication to control their condition. During the treatment period, they need to bear the helplessness of illness, fear of death and discrimination from the outside world, which further aggravates negative emotions<sup>[8]</sup>. Clinical studies have shown <sup>[9]</sup>that most AIDS patients have varying degrees of stigma, which can affect their treatment compliance, physical and mental health and so on, and increase the occurrence risk of adverse clinical outcomes. Therefore, on the basis of carrying out standardized treatment for AIDS patients, clinical medical staff also need to cooperate with scientific nursing intervention measures<sup>[10,11]</sup>.

The purpose of psychological nursing is to maintain the mental health of AIDS patients. During the development process, the medical staff will conduct dynamic assessments of the emotional state changes of the patients and closely monitor their emotional changes and others to ensure that negative emotions can be discovered in time, and combined with the relevant inducements of negative emotions, carry out personalized counseling work, and help patients cope with the disease with a positive attitude <sup>[12]</sup>. From the perspective of humanized nursing concept, nurses can carry out psychological cognitive intervention, support intervention and social support intervention and others for AIDS patients, give patients respect and care, build a harmonious nurse-patient relationship, and encourage relatives and friends to participate in care activities of patients, which can give family care and support to patients, and eliminate their negative emotions <sup>[13]</sup>.By increasing publicity, public awareness of disease-related knowledge can be increased, the social situation of patients can be improved, which can reduce their psychological pressure, and reduce the impact of negative emotions on treatment compliance and disease control effect<sup>[14,15]</sup>.

In the study, the SAS score, SDS score and K10 total score of the observation group were significantly lower than those of the control group, and the scores of all dimensions of stress responses were significantly better than those of the control group, suggesting that the application of psychological nursing in AIDS patients can effectively reduce their negative emotions, degree of psychological distress, and psychological stress responses. Analyzing the reasons, nurses can help patients establish a correct understanding of AIDS-related knowledge, form health awareness and accept role changes through personalized and continuous health propaganda and education work<sup>[16]</sup>.Cooperated with relaxation training,it can help patients divert their attention,andalleviate the psychological stress responses caused by the disease; giving social support to patients is beneficial to alleviate the psychological stress responses, and can improve the physical and mental health of patients <sup>[17,18]</sup>.

In the study, the scores of coping style and hope level of the observation group were significantly better than those of the control group, suggesting that psychological nursing can help AIDS patients cope with the disease in positive way and attitude and so on. Analyzing the reasons, psychological nursing work can change patients' misconceptions about AIDS-related knowledge, make them have different views on the disease and the reality of their own illness, thereby prompting them to actively deal with the disease<sup>[19]</sup>. The compliance of the observation group was significantly higher than that of the control group.Analyzing the reasons,after the implementation of psychological nursing work, AIDS patients can adapt to their own roles, and have a new understanding of the disease. While reducing negative emotions,

it can also help them formed behaviors and awareness that were beneficial to their own health,thereby improving the degree of cooperation with the treatment work [20, 21].

All in all, the effects of applying the psychological nursing model to AIDS patients are ideal, but the sample size of this study is relatively small, and the follow-up time is short, so more in-depth exploration and analysis are needed in future clinical practice.

## **Conclusion**

This paper proves the effectiveness of psychological nursing to AIDS patients in the way of decreasing negative feelings, increasing the adherence to the treatment regimen, and promoting better psychological quality. The observation group whose subject including psychological nursing interventions showed reduction in SAS and SDS scores after nursing and the differences were statistically considerable than the control group ( $P < 0.05$ ). Furthermore, the observation group had a significantly higher percentage of patients' adherence (93.33 %) compared to the control group (66.67 %), and it supports the proposition of psychological intervention improving the rate of patients' compliance with therapies' recommendations. The findings of the Herth Hope Index were also significant in the observation group with all the subscale values rising in hope level after nursing ( $P < 0.05$ ). Furthermore, there were better coping styles and psychological factors in the intervention group regarding avoidance and yield scores, and lower distress compared with the control group according to the K10 scale ( $P < 0.05$ ). This study achieves its goal by providing evidence that psychological nursing intervention indeed plays a significant role in enhancing the emotional-psychological-compliance status of AIDS patients.

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