

Application effect of health management model in sub-health population

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Abstract: The aim is to analyze the application effect of health management mode intervention in sub-health population. **Methods:** A total of 88 sub-health physical examination patients were selected from our hospital from July 2021 to December 2022. They were randomly divided by number table method. One group received routine management intervention and was recorded as the control group. One group received health management mode intervention and was recorded as observation group; there were 44 cases in each group and the effects of different interventions were compared. **Results:** The symptom and performance scores of observation group were lower than those of control group ($P < 0.05$). The scores of self-behavior and life quality in the observation group were higher than those in the control group ($P < 0.05$). The total satisfaction of the observation group (93.18%) was higher than that of the control group (77.27%) ($P < 0.05$). **Conclusion:** The intervention of health management mode can improve the physical condition of sub-health people, promote them to maintain healthy self-behavior, improve their quality of life, and effectively obtain their satisfaction. It is worth promoting.

Keywords: Sub-health state; Health management mode; Intervention effect

1. Introduction

Sub-health mainly refers to the body between health and disease, related to organ function decline, organizational structure degradation and other factors, often manifested as decreased vitality, decreased adaptability and other symptoms.^[1] In recent years, with the acceleration of people's pace of life, changes in diet and rest habits, the number of people in sub-health state remains high. If effective measures are not taken in time, people in sub-health state are very likely to turn into disease patients, seriously affecting people's quality of life. Conventional management is a common measure to guide sub-health people to maintain a healthy life, but it is lack of systematic and sequential, and the effect is not ideal. Therefore, it is particularly critical to strengthen the health management of sub-health population and regulate their physical fitness. In view of this, this study analyzed the effect of health management mode intervention by taking 88 cases of physical examination patients admitted to hospital from July 2021 to December 2022 as examples. The detailed report is as follows.

2. Data and methods

2.1. General Information

A total of 88 patients with sub-health status who underwent physical examination in our hospital from July 2021 to December 2022 were selected. The inclusion criteria were: (1) all of them met the relevant criteria in the Clinical Guidelines of Sub-health Traditional Chinese Medicine; (2) Abide by the voluntary principle, can actively cooperate with the experiment, sign the agreement; (3) Complete personal information. Exclusion criteria: (1) patients with malignant tumor, organ defect, mental disease and other diseases; (2) Patients with other diseases; (3) may appear depression, insomnia; (4) Patients with COVID-19; (5) Poor compliance, personal information defects. There were 44 cases in each group, 24 cases in males and 20 cases in females in the control group. The average age was (38.55 ± 3.462) years. Marital status: Married 20 cases, unmarried 24 cases. In the observation group, there were 23 males and 21 females; the average age was (38.46 ± 3.275) years. Marital status: Married 19 cases, unmarried 25 cases. There was no difference in age, sex and marital status between the two groups ($P > 0.05$).

2.2. Methods

The control group was subjected to routine management, that is, the physical examination subjects were instructed to keep the indoor environment clean and tidy, pay attention to gout, maintain a good habit of rest and rest, eat less spicy and stimulating food, strengthen the intake of nutrients, and reduce smoking and drinking. At the same time, guide the physical examination subjects according to their own hobbies to choose the appropriate way of exercise, reasonable exercise, improve their physical fitness.

On this basis, the observation group carried out health management mode intervention, including: (1) health screening: according to the sub-health criteria, the health screening was conducted on the patients who came to the hospital for physical examination, and combined with their living habits, living environment, physical status and mental state, comprehensive assessment of the health status of the patients, and targeted health management intervention measures. (2) Specific measures: (1) Build a tracking card, make a tracking card for the screened sub-health population, guide the population to learn ways to adjust their lifestyle, adjust their diet structure, eliminate pathogenic factors, and regularly conduct SMS reminders or telephone follow-up, and instruct them to go to the hospital for regular physical examination, and actively achieve early detection and treatment.^[2] (2) Knowledge education, prevention of epidemic and common diseases and health knowledge education with the help of hospital publicity bars and publicity Windows, keep the form concise, easy to understand, easy to understand physical examination. At the same time, publicity brochures were issued to fully educate the prevention of various diseases. (3) Health consultation: Because the symptoms of sub-health state are hidden, most people pay less attention to it. Therefore, for people with sub-health status who go to hospital for physical examination, doctors should explain the examination results in detail, and put forward reasonable and intuitive suggestions according to the time situation to correct their bad living habits. (4) Healthy life: asked the physical examination subjects to maintain a healthy diet, to light, easy to digest factors, reduce spicy and stimulating food, quit smoking and alcohol, develop good living habits, and guide them to appropriate exercise, can choose jogging, cycling and other activities, promote their physical improvement.^[3] Both groups received continuous intervention for 1 year.

2.3. Observation Indicators

(1) The sub-health status rating scale was used to evaluate the symptoms and performance before and after the intervention, including physical status, emotional status and energy status, each item contained 4 items, full score 16 points, the higher the score, the more serious sub-health status.

(2) The self-designed questionnaire survey of our hospital was used to determine the self-behavior of the physical examination subjects, including cognition, exercise, diet and health behavior, 25 points for each item, full score of 100, the higher the score, the healthier the self-behavior.

(3) Based on the Quality of Life Scale (SF-36), the actual quality of life assessment questionnaire was prepared in our hospital, including physical symptoms, mental state, self-care ability and social relations, with 25 points for each item, full score of 100, and the score was proportional to the quality of life.

(4) Through SMS or telephone follow-up survey, the subjects rated the intervention, a total of 10 points, divided into very satisfied (10 points), general (6-9 points), and not satisfied (0-4 points).

2.4. Statistical Methods

The SPSS22.0 statistical software was used to analyze, and t (t) spoon test was used for comparison among groups, while enumeration data (%) was tested by X² (corrected X²), $P < 0.05$, suggesting that the intergroup difference is significant.

3. Results

3.1. Comparison of symptoms and manifestations between the two groups

Before intervention, there was no difference between groups ($P > 0.05$). After intervention, the scores of both groups were decreased, and the observation group was lower ($P < 0.05$), as shown in Table 1.

Table 1 Comparison of symptoms and manifestations ($\pm s$, score)

Groups	Number of cases	Physical condition		Emotion status		Energy state	
		Before intervention	After intervention	Before intervention	After intervention	Before intervention	After intervention
Control group	44	8.34 \pm 1.238	6.61 \pm 1.674	13.14 \pm 2.455	6.50 \pm 2.074	13.30 \pm 3.317	6.32 \pm 1.475
Observe group	44	8.07 \pm 1.388	4.02 \pm 1.131	13.57 \pm 2.881	4.52 \pm 1.229	12.91 \pm 2.794	4.70 \pm 1.133
t		0.973	8.509	-0.757	5.440	0.591	5.756
P		0.333	0.000	0.451	0.000	0.556	0.000

3.2. Comparison of self-behavior between the two groups

The scores of the observation group were higher ($P < 0.05$), as shown in Table 2.

Table 2 Comparison of self-behavior ($\pm s$, score)

Groups	Number of cases	Cognitive behavior	Motor behavior	Dietary behavior	Health care behavior	Total score
Control group	44	21.45 \pm 3.566	20.55 \pm 2.637	20.27 \pm 2.757	19.91 \pm 2.144	82.18 \pm 6.259
Observe group	44	23.48 \pm 3.038	23.20 \pm 3.167	22.64 \pm 4.012	22.43 \pm 2.872	91.75 \pm 5.537
t		-2.864	-4.281	-3.221	-4.669	-7.595
P		0.005	0.000	0.002	0.000	0.000

3.3. Comparison of life quality between the two groups

Before intervention, there was no difference between groups ($P > 0.05$). After intervention, the scores of both groups were improved, and the observation group was higher than the control group ($P < 0.05$), as shown in Table 3.

Table 3 Comparison of quality of life ($\pm s$, score)

Groups	Number of cases	Somatic symptom		Mental state		Self-care ability		Social connections	
		Before intervention	After intervention	Before intervention	After intervention	Before intervention	After intervention	Before intervention	After intervention
Control group	44	17.43 \pm 2.929	20.39 \pm 4.804	17.91 \pm 3.305	20.77 \pm 4.045	18.98 \pm 3.173	21.3 \pm 3.455	18.16 \pm 3.087	20.64 \pm 2.441
Observe group	44	17.39 \pm 2.780	22.82 \pm 3.817	17.84 \pm 3.147	22.98 \pm 4.511	18.36 \pm 2.334	23.09 \pm 3.940	18.41 \pm 3.022	22.30 \pm 3.261
t		0.075	-2.629	0.099	-2.413	1.033	-2.273	-0.384	-2.702
P		0.941	0.010	0.921	0.018	0.304	0.026	0.702	0.008

3.4. Comparison of satisfaction between the two groups

The total satisfaction of the observation group was higher ($P < 0.05$), as shown in Table 4.

Table 4 Comparison of Satisfaction [n, %]

Groups	Number of cases	Extremely satisfied	Average satisfied	Not satisfied	Overall satisfaction
Control group	44	14(31.82)	20(45.45)	10(22.73)	34(77.27)
Observe group	44	17(38.64)	24(54.55)	3(6.82)	41(93.18)
χ^2		4.423			
P		0.035			

4. Discussion

In recent years, sub-health status is relatively common, which is closely related to people's increased living pressure, irregular work and rest, unreasonable diet and other factors. If people are in

sub-health status for a long time, it is very likely to induce a variety of diseases, which seriously affects people's life quality. Therefore, it is particularly critical to strengthen the health management of sub-health population. The results of this study confirmed that, compared with the control group, the symptom and performance scores of the observation group were lower, and the self-behavior and quality of life scores were higher ($P < 0.05$), indicating that the health management mode intervention can effectively improve the sub-health status of the physical examination subjects, promote them to develop healthy living habits, improve their quality of life. Because this measure can accurately understand people's health status through physical examination screening, combined with the living environment and habits of the physical examination, help to determine the potential causes of disease, and provide a reliable reference for the formulation of targeted intervention measures. At the same time, strengthen health education, promote physical examination subjects to correctly understand the knowledge related to sub-health, effectively improve their attention, so that they can maintain a healthy life, coupled with diet, exercise and other multi-angle intervention, help physical examination subjects to develop healthy living habits, promote them to maintain healthy self-behavior, effectively improve their quality of life. Moreover, the total satisfaction of the observation group was higher ($P < 0.05$), because this intervention can effectively improve the sub-health status of the physical examination subjects, keep them healthy, effectively reduce the risk of disease, so it is easy to accept, and effectively improve the satisfaction of the physical examination subjects.

To sum up, the implementation of health management mode intervention for people with sub-health status can effectively improve their sub-health status, promote them to form good living habits, maintain healthy self-behaviors and improve their quality of life. Besides, the satisfaction of the physical examination subjects is high, which has significant application value and is worthy of widespread clinical promotion.

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