Wang Y et al. (2023) Effect of Traditional Chinese Medicine Physique Classification and Targeted, Individualized Nursing Intervention on Athletes' Mental Health in Sports. Revista Internacional de Medicina y Ciencias de la Actividad Física y el Deporte vol. 23 (91) pp. 183-198. **DOI:** https://doi.org/10.15366/rimcafd2023.91.011

ORIGINAL

Effect of Traditional Chinese Medicine Physique Classification and Targeted, Individualized Nursing Intervention on Athletes' Mental Health in Sports

Zhaolin Chen[1], Shuangchun Liu[1], Qiuna Yao[1] , Xinglan Zhu[2], Meijin Ou[2] Rui Xi, Danmei Weng, Dongxiu Liang, Guanhong Li, Yu Wang[3,4,5*], Chunli Wang[3,4,5*]

[1] Department of Gastroenterology, the 1st Affiliated Hospital of Jinan University, Guang Zhou 510630, Guangdong Province, China.
[2] Kaiping Central Hospital, Kaiping 529300, Guangdong Province, China.
[3] The Community Health Service Center of Jinan University, Guang Zhou 510630, Guangdong Province, China.
[4] The 1st Affiliated Hospital of Jinan University, Guang Zhou 510630, Guangdong Province, China.
[5] Nursing college of Jinan University, Guangzhou 510630, Guangdong Province, China.
E-mail: jnuwendy@126.com
E-mail: wcl38688256@126.com

UNESCO Code / UNESCO Code:
Council of Europe classification / Council of Europe classification:

Recibido 08 de abril de 2022 **Received** April 08, 2022
Aceptado 11 de junio de 2023 **Accepted** June 11, 2023

ABSTRACT

Objective: To investigate the impact of Traditional Chinese Medicine (TCM) physique classification and targeted, individualized nursing intervention on athletes' mental health in the context of sports. **Methods:** From February 2018 to February 2019, we randomly assigned 154 athletes to two groups (n=77) for this study. The control group received standard sports-related nursing care, while the observation group received personalized nursing interventions based on their TCM physique constitution. We assessed various parameters, including mental health indicators and sports performance metrics, before and after the nursing intervention. The assessment included psychological well-being scores, performance metrics, and the incidence of any adverse effects. **Results:** After the nursing intervention, athletes in the observation group showed significant improvements in psychological well-being, including lower levels of anxiety and depression (all $P<0.05$). Additionally, their sports

performance metrics, including strength, endurance, and recovery, demonstrated remarkable enhancement compared to the control group (P<0.05). The overall quality of life scores for athletes in the observation group also showed significant improvements, particularly in physiological function, mental health, emotional function, and social function (P<0.05). In terms of adverse effects, the observation group experienced significantly fewer issues compared to the control group (P<0.05). **Conclusion:** Utilizing TCM physique classification and tailored nursing interventions for athletes can lead to improved mental health outcomes, enhanced sports performance, and an overall better quality of life. This approach holds promise for optimizing athletes' well-being and performance and deserves further consideration and application in the realm of sports and athletes' mental health.

KEYWORDS: Traditional Chinese Medicine; TCM constitution; Targeted, individualized nursing, Sports performance, Sports medicine

INTRODUCTION

Mental health is a critical aspect of an athlete's overall well-being and performance in sports. In recent years, the application of Traditional Chinese Medicine (TCM) principles, particularly TCM physique classification, and personalized nursing interventions have gained attention as potential methods to enhance athletes' mental health within the context of sports. This study aims to explore the impact of TCM physique classification and targeted, individualized nursing intervention on athletes' mental health.(Kanda et al., 2019; Zhao et al., 2020). Athletes face significant mental and emotional challenges in their pursuit of excellence in sports. This is analogous to the chronic progressive nature of Hepatitis B cirrhosis (HBC) in China, which requires effective intervention strategies. Similarly, athletes' mental health can significantly affect their performance and overall quality of life.(Moon et al., 2020), (Zhou et al., 2021).

In both scenarios, individualized approaches have shown promise. In the context of HBC, traditional Western medicine has limitations such as drug resistance and side effects. Likewise, in sports, generic mental health support may not fully address the unique needs of individual athletes.(Tandon et al., 2021; Zhang Yun et al., 2022). TCM offers a holistic approach to health, focusing on the balance of the body's energies and individual constitution. (Ahmed et al., 2016). Just as TCM can aid in diagnosing and treating HBC by understanding the patient's constitution, it can also play a crucial role in assessing an athlete's mental health.(Moore et al., 2022). In sports, nursing interventions often go beyond physical care. Athletes often require specialized support to address the psychological aspects of their training and competition. Routine nursing measures may fall short in meeting these unique needs.(Jiang Shili & Liu Ping, 2022)

This study aims to apply the principles of TCM, including physique classification, to tailor nursing interventions for athletes(Bernardi et al., 2020; Fernández et al., 2019). By recognizing individual constitution types, we aim to provide personalized and targeted nursing care to enhance athletes' mental health, improve their performance, and ultimately contribute to their overall well-being within the realm of sports(Benmassaoud et al., 2020). Understanding athletes' unique constitution types and applying targeted, individualized nursing interventions based on TCM principles can potentially lead to improved mental health outcomes, enhanced sports performance, and better overall quality of life for athletes. (Ahmed et al., 2016). This approach holds promise for optimizing athletes' well-being and performance and warrants further exploration and application in the field of sports.

1. Patients and methods

1.1 General information

During February 2018 to February 2019, 154 patients with liver cirrhosis treated in our hospital were arbitrarily assigned into two groups (n = 77). In the control group, patients received the routine nursing intervention. While in the observation group, patients received targeted individualized nursing intervention based on the type of constitution of TCM. In terms of baseline data, there were no remarkable differences (P>0.05), which is comparable in Table 1. A statement of consent for this study was signed by all patients, and the study was approved by the Medical Ethics Council of our hospital.

Inclusion criteria: 1) all the selected cases were diagnosed as posthepatitic cirrhosis, and the diagnostic criteria were referred to the relevant literature (Gao Zhengcong, 2012); 2) the primary data of the patients were complete; 3) this study involved voluntary participation by patients who signed informed consent forms.

Exclusion criteria: 1) patients with severe organic diseases, hematological diseases, and malignant tumors; 2) patients with mental illness or mental disorders, communication disorders, or severe memory loss; 3) those who are in pregnancy or lactation; 4) participate in other clinical researchers at the same time.

1.2 Treatment methods

The control group received routine nursing. Guide patients to take medicine on time and according to dose, develop good living habits, not stay up late, rest early, reasonably plan their diet, issue health manuals, and do good environmental care.

The observation group used a targeted, personalized nursing program

based on the type of constitution of TCM. The specific measures are as follows: (1) condition assessment. Comprehensive understanding of patient data, and evaluation of the physical status of patients, from the disease symptoms, culture, occupation, and other aspects. Wang Qi's "Traditional Chinese Medicine Constitution Classification and judgment Table" was used to measure the TCM physique of the patients in the group and formulate a reasonable nursing plan according to their TCM physique types to ensure the pertinence of nursing. Male patients are prone to hostility and need patient persuasion. Serious patients often lose confidence in treatment, which can inform them of the complexity of disease changes and provide timely feedback on the information of treatment improvement.

(2) Hospitalization nursing. Once admitted to the hospital, the nurse should receive the patient warmly, initially evaluate the patient's general condition, understand the patient's psychological and sleep status, lead the patient to visit the hospitalization environment, and introduce the hospital environment and the rules and regulations of the hospital. Nurses can explain the causes of the disease, the typical symptoms of the disease, and the issues that should be focused on after medication to improve patients' understanding and mastery of the disease. Patients are advised not to increase or decrease the dose when they are discharged from the hospital to take medicine at home not to affect the treatment effect, improve patients' attention to the disease, and deepen the importance of medication ordered by doctors.

(3) Psychological nursing. To provide opportunities for patients to express their inner thoughts, nurses should take the initiative to communicate with them to dispel their ideological concerns, encourage and support patients, help patients build self-confidence, and make them optimistic. When talking, we should pay attention to the methods, give priority to supportive treatment, establish a strong pillar in the heart of patients, alleviate the inner burden of patients as much as possible, and obtain patients' cooperation with treatment. In the face of the patient's family, do not relax, talk with the patient's family to make them understand the importance of the patient's family, urge the family to accompany the patient more, give more support and encouragement, never show fear or boredom, and treat the patient gently to make the patient feel at ease. Strengthen health education for patients, use simple and popular words to tell them about disease knowledge, correct patients' wrong cognition, guide them to master disinfection and isolation methods with their families, and actively cooperate with treatment.

(4) Diet nursing. Based on the idea of "homology of medicine and food" in TCM, patients with yin deficiency of the liver and kidney can eat more food such as wax gourd and lilies; patients with damp-heat accumulation can recommend eating more carp soup; patients with cold and damp trapped spleen should eat more porridge with ginger and spring onions; patients with yang

deficiency of spleen and kidney should eat Codonopsis porridge to tonify the middle and benefit qi. For patients with qi deficiency, we should reasonably eat foods such as beef, yam, and peanuts to strengthen the spleen and tonify the kidney; for patients with yin deficiency, eat appropriate amounts of raw and moistening dry foods such as spinach, fish, and yam porridge; for patients with damp-heat quality, can eat a small amount of cool and purging fire foods such as mung bean, wax gourd, and barley rice; for patients with blood stasis, they should abstain from alcohol and keep their diet low in salt and fat. The key to recuperating it is to promote blood circulation and remove blood stasis, which can be eaten more foods such as Hawthorn, lemon, grapefruit, and so on.

(5) Liver function nursing. When the liver function is weak, the body temperature, heart rate, and blood pressure can be observed to observe whether the patient has the problem of black stool or hematemesis, to carry out intensive care, to monitor the patient's peripheral temperature and skin color dynamically, to understand the filling condition of the peripheral vein, to observe whether the peripheral circulation fails, to forbid diet if necessary, to record the 24-hour intake and output in detail, and to monitor the patient's urine volume per hour. The blood biochemistry, blood routine, liver function, and coagulation indexes were regularly reexamined. We should use antibiotics to prevent infection, apply diuretics to correct electrolyte disturbance in time, closely observe the speed and quantity of ascites, supplement lost protein, put ascites on top of 1000mL for the first time, closely monitor abdominal circumference and ascites, check the color of patients' feces and vomit, stop bleeding according to doctor's advice, and carry out the antishock treatment.

(6) Life nursing. 1) exercise guidance. Instruct patients to maintain the air circulation in the ward, pay attention to daily life to avoid strenuous exercise or overwork, and carry out physical exercise appropriately when the disease permits. 2) correct bad habits. After publicity and education to help patients master the way of life, understand the recovery of liver function, such as drinking, smoking, and other damage, stay away from alcohol and tobacco, and avoid being stimulated by coffee food.

Nurses must inform patients and their families about the way, dose, and frequency of antiviral medication and instruct the patient to set an alarm clock to remind them to take medicine. For some patients with poor compliance, nurses can remind them to take medicine by phone daily to ensure that each patient can take medicine according to the point. Finally, the psychological counseling of patients, due to the disease treatment cycle being too long, patients need to adhere to medication, to a certain extent, will increase the family economic pressure, and patients are prone to resistance. 3) Massage. Instruct the patient's family to massage the patient twice a day, once in the morning and evening; the massage points are: Ganshu, Hegu, Shenmen, Tongli, Yongquan, Zusanli, etc., and the strength of massage should be stable, from

light to heavy, with sufficient penetration, combined with chiropractic massage, to play the effect of regulating qi and soothing the liver. Patients choose a supine position, and family members massage the abdomen, hands overlap clockwise, counterclockwise ring massage 100 times; massage should be careful and patient, appropriate techniques, based on comfort, to ensure that the veins of the patient's whole body are smooth, accelerate blood circulation, increase intestinal peristalsis, enhance digestive function, and promote the rapid improvement of liver function.

(7) Follow up. The patient's condition tracking card is issued, and the nursing staff contacts the patient through a home visit or telephone, solves the problems in treatment and nursing in time, and gives medication guidance to avoid using drugs harmful to the liver. dandelion and wild chrysanthemum can be used to make tea daily, clearing the liver and detoxification, strengthening the determination of patients' blood sugar and liver function, and reexamining the patients regularly to prevent complications.

1.3 Observation index

The main results were: (1) The patients' liver function was observed. During the morning empty stomach draw, 2mL of venous blood were collected, and the serum was collected by centrifugation (3000r Bachminger 10min). The levels of AST and ALT were examined by the enzyme coupling method with an automatic biochemical analyzer (Beckman AU5800, model: BS-220). GGT was detected by the rate method. The level of GGT was tested before nursing (on admission) and after nursing (on discharge); (2) the liver elasticity values of T0 (8-11:00), T1 (middle 12-15:00), and T2 (lower 16-19:00) were measured before nursing (on admission) and after nursing (discharge) and detected by a liver instantaneous elastic scanner;

(3) the anxiety and depression of the two groups were analyzed and measured with a SAS and a SDS. As the score goes down, anxiety and depression become lighter. They were evaluated before nursing (at admission) and after nursing (at discharge); (4) five dimensions of the SF- 36 scale (Wei Wei et al., 2016) were adopted to evaluate the two groups' life quality: physiological function, mental health, physiological function, emotional function, and social function. Higher scores indicate a higher quality of life. The evaluation was performed only after nursing (at discharge);

(5) the occurrence of adverse reactions during nursing, including loss of appetite, liver pain, nausea and vomiting, lighter stool color, etc., the incidence of adverse reactions = the number of adverse reactions / the total number of cases × 100%. Anorexia: decreased appetite, even anorexia; pain in the liver: pain in the right seasonal ribs (right upper abdomen); nausea and vomiting: nausea refers to discomfort and acute vomiting in the upper abdomen. Vomiting

refers to the excretion of substances in the stomach; the color of the stool becomes lighter: the color of the stool is lighter than the standard color (yellowish brown).

1.4 Statistical analysis

SPSS22.0 statistical software was used to process the data, and the measurement data with normal distribution and uniform variance were expressed as (±s). The comparison between groups was conducted by independent sample t-test, the counting data was represented by n (%), and χ2 test was adopted for comparison. Statistically remarkable differences were observed (P<0.05).

2. Results

2.1 Comparison of general data

The general data of patients were age, gender, body mass index, constitution type, exercise form, exercise duration, living environment, eating habits, Child-Pugh classification, years of education, and end-stage liver disease index (MELD). In contrast, no statistically remarkable difference was found in the data (P>0.05), and they were comparable. You can see all results in Table 1.

Table 1(a): Comparison of general data

GROUPING	OBSERVATION GROUP（N=77）	CONTROL GROUP （N=77）	*T/X2*	*P*
Age (years)	50.73±15.13	51.12±14.81	*0.162*	*＞0.05*
Gender (male / female)	40/37	42/35	*0.104*	*＞0.05*
Physique type			*0.816*	*＞0.05*
Peace and quality	10（12.99）	8（10.39）		
Qi deficiency quality	9（11.69）	7（9.09）		
Yang deficiency quality	12（15.58）	15（19.48）		
Yin deficiency quality	13（16.88）	12（15.58）		
Phlegm dampness quality	9（11.69）	8（10.39）		
Damp-heat mass	4（5.19）	5（6.49）		
Blood stasis quality	12（15.58）	10（12.99）		
Qi depression quality	8（10.39）	11（14.29）		
Special quality	0（0.00）	0（0.00）		
Course of disease (year)	11.83±10.26	12.05±9.88	*0.136*	*＞0.05*
Body mass index（kg/m²）	23.67±3.81	24.05±3.65	*0.632*	*＞0.05*
Form of movement			*0.845*	*＞0.05*
No movement	21（27.27）	26（33.77）		

Table 1(b): Comparison of general data

GROUPING	OBSERVATION GROUP（N=77）	CONTROL GROUP （N=77）	*T/X2*	*P*
Aerobic exercise	52（67.53）	48（62.34）		
With the combination of anaerobic exercise	4（5.19）	3（3.90）		
Exercise time（min）			*0.281*	*＞0.05*
≤30min	61（79.22）	60（77.92）		
30~60min	10（12.99）	12（15.58）		
＞60min	6（7.79）	5（6.49）		
Living environment			*1.007*	*＞0.05*
Suitable	75（97.40）	76（98.70）		
Drying	1（1.30）	1（1.30）		
Damp	1（1.30）	0（0.00）		
Eating habits			*0.685*	*＞0.05*
Like to be light	70（90.91）	69（89.61）		
Like spicy	3（3.90）	5（6.49）		
Fond of fat and greasy	4（5.19）	3（3.90）		
Like cold and cool	1（1.30）	1（1.30）		
Child-Pugh Grading			*0.255*	*＞0.05*
Level A	23（29.87）	21（27.27）		
Level B	30（38.96）	33（42.86）		
Level C	24（31.17）	23（29.87）		
MELD Index	4.22±0.67	4.27±0.69	*0.456*	*＞0.05*
Number of years of education (years)	8.22±1.34	8.27±1.37	*0.229*	*＞0.05*

2.2 Comparison of liver function indexes before and after intervention

Before nursing, the ALT, AST, and GGT levels of patients were compared, and no statistically remarkable difference was found in the data (all P>0.05). After nursing, ALT, AST, and GGT were remarkably reduced, and the levels in the observation group were lower (all P<0.05).

The passage describes a change in the levels of ALT, AST, and GGT in patients before and after receiving nursing care. Initially, there were no significant differences in these levels, but after nursing, all three enzymes showed significant reductions, with the observation group experiencing lower levels.

These findings suggest that nursing care had a positive effect on the

patients' liver health, as indicated by the reductions in liver enzyme levels. You can see all results in Table 2.

Table 2: Comparison of liver function indexes before and after intervention（x±s，n=77）

GROUP	ALT（IU/L）		AST（IU/L）		GGT（IU/L）	
	Before nursing	After nursing	Before nursing	After nursing	Before nursing	After nursing
Observation group	70.43±15.61	37.41±6.35[a]	116.27±24.91	82.61±16.08[a]	258.42±51.54	140.51±19.28[a]
Control group	70.82±15.43	52.34±6.48[b]	116.35±24.88	100.37±23.06[b]	258.37±51.46	171.36±19.21[b]
t	0.156	14.440	0.020	5.544	0.006	9.946
P	＞0.05	＜0.05	＞0.05	＜0.05	＞0.05	＜0.05

Note: *compared with the observation group before nursing, aP<0.05; compared with the control group before nursing, bP<0.05*

2.3 Comparison of liver elasticity before and after nursing

No remarkable difference was found in liver elasticity before nursing (P > 0.05). After nursing, the T0/kPa, T1/kPa, and T2/kPa of the two groups were remarkably lower than those before nursing. The observation group was lower than the control group (P<0.05). You can see all results in Table 3.

Table 3: Comparison of liver elasticity values before and after nursing（x±s，n=77）

GROUP	T0/KPA		T1/KPA		T2/KPA	
	BEFORE NURSING	AFTER NURSING	BEFORE NURSING	AFTER NURSING	BEFORE NURSING	AFTER NURSING
Observation group	12.46±2.33	8.61±1.25[a]	12.36±2.33	8.36±1.08[a]	12.53±1.55	8.18±0.34[a]
Control group	12.53±2.27	9.86±1.33[b]	12.48±2.41	9.74±0.38[b]	12.47±1.61	10.04±0.72[b]
t	0.189	6.010	0.314	10.577	0.236	20.498
P	＞0.05	＜0.05	＞0.05	＜0.05	＞0.05	＜0.05

Note*: compared with the observation group before nursing, aP<0.05; compared with the control group before nursing, bP<0.05.*

2.4 Comparison of SAS and SDS scores before and after nursing

No remarkable difference was found in SAS and SDS scores before nursing (P>0.05). The scores of SAS and SDS after nursing were remarkably

lower than those before nursing, and the scores in the observation group were remarkably lower (P<0.05). You can see all results in Table 4.

Table 4: comparison of SAS and SDS scores before and after nursing（x±s，n=77, points）

GROUP	SAS SCORING		SDS SCORING	
	BEFORE NURSING	AFTER NURSING	BEFORE NURSING	AFTER NURSING
Observation group	74.35±9.34	40.06±3.28[a]	66.27±3.82	35.26±1.14[a]
Control group	74.46±9.88	55.27±4.21[b]	66.43±3.37	51.78±4.62[b]
t	0.071	25.008	0.276	30.463
P	＞0.05	＜0.05	＞0.05	＜0.05

Note: *compared with the observation group before nursing, aP<0.05; compared with the control group before nursing, bP<0.05.*

2.5 Comparison of life quality score of patients with liver cirrhosis

After nursing, the scores of physiological function, mental health, physiological function, emotional function, and social function in the observation group were remarkably higher (P<0.05). You can see all results in Figure 1.

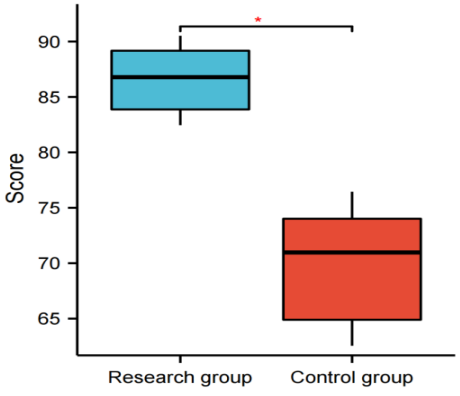

Figure 1-1

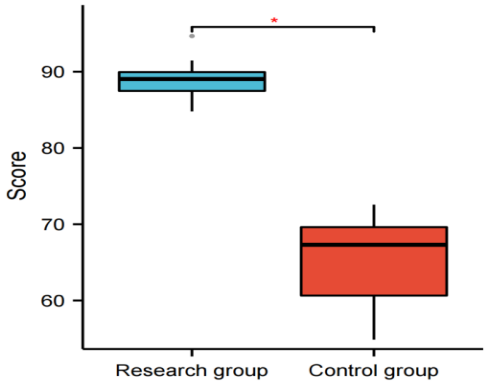

Figure 1-2

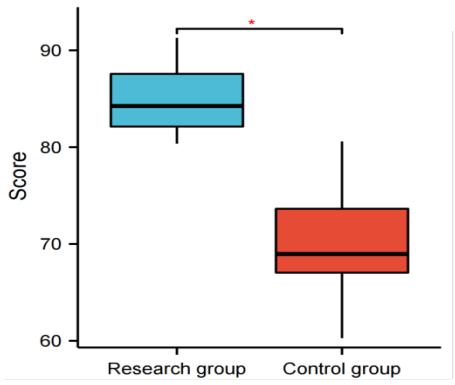

Figure 1-3

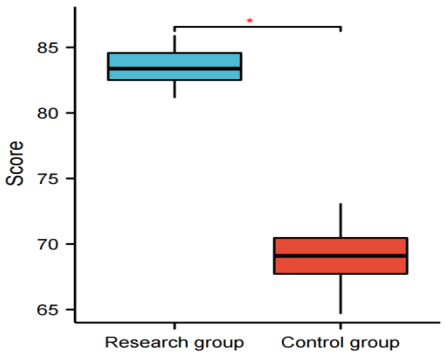

Figure 1-4

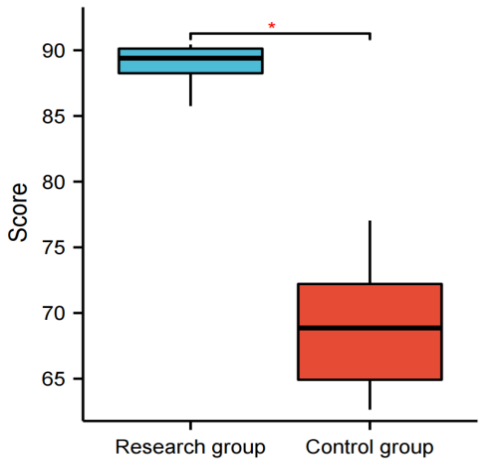

Figure 1-5

Note: *figure 1-1: physiological function; figure 1-2: mental health: figure 1-3: physiological function; figure 1-4: emotional function; figure 1-5 Social function*

Figure 1: comparison of life quality scores of patients with liver cirrhosis

2.6 Occurrence of adverse reactions

In the control group, there were 2 patients of anorexia, 3 patients of liver pain, 3 patients of nausea and vomiting, and 4 patients of lighter stool. The total incidence was 15.59%. In the observation group, there was 1 patient of loss of appetite, 1 patient of liver pain, 0 patient of nausea and vomiting, and 1 patient of lighter stool, and the total incidence rate was 3.90% (P<0.05). You can see all results in Figure 2.

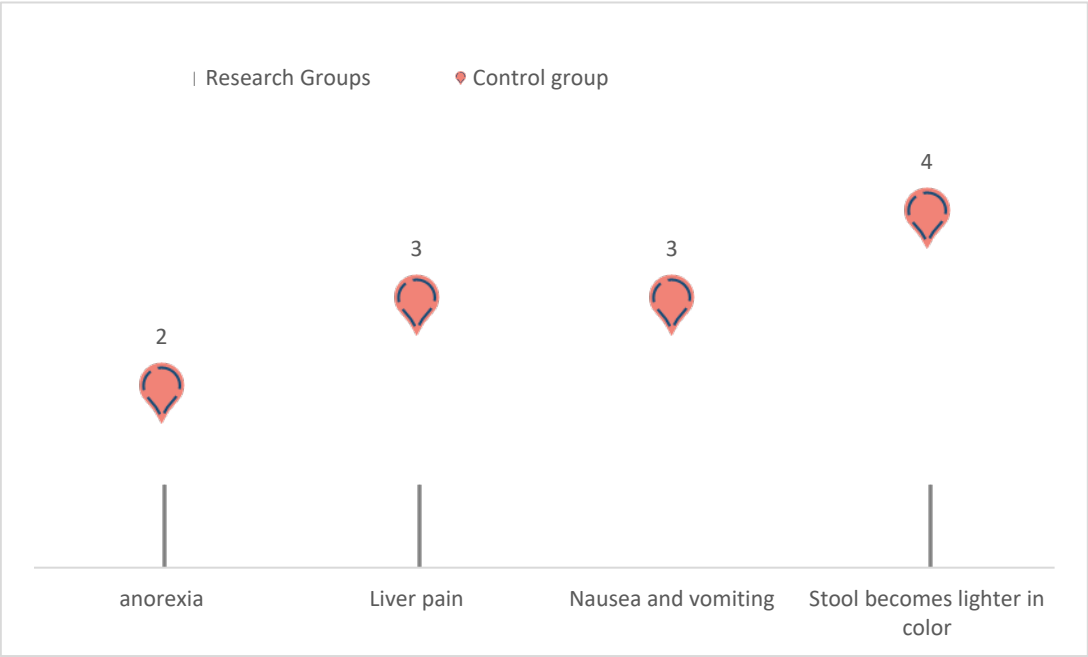

Figure 2: comparison of the incidence of adverse reactions

3. Discussion

The analysis of the impact of Traditional Chinese Medicine (TCM) physique classification and targeted, individualized nursing intervention on athletes' mental health in sports is a multifaceted exploration that brings together the wisdom of TCM, the significance of athletes' mental well-being, and the potential benefits of personalized nursing approaches(Hu Ting, 2020; Liu Zhichao, 2020). This comprehensive analysis examines the intricate connections between these elements and their implications for enhancing athletes' mental health and sports performance(Dan Yuanwei, 2020; Zhang Yuzhen et al., 2021).

3.1 Traditional Chinese Medicine and Athletes' Mental Health:

TCM, with its rich history and holistic approach to health, offers valuable insights into athletes' mental health. The principles of TCM revolve around achieving harmony and balance in the body, primarily through the equilibrium of vital energies, Qi, and the balance of Yin and Yang(Zhu Yanbo et al., 2018). Applying these principles to athletes' mental health requires an understanding of their unique physiological and psychological challenges:

3.1.1 Physiological Variations:

TCM recognizes that athletes may possess different physiques or constitutions, such as Qi deficiency, Yang deficiency, Yin deficiency, or Blood stasis. These variations can influence an athlete's susceptibility to mental health issues, energy levels, and emotional states(Zhu Yanbo et al., 2018).

3.1.2 Emotional Well-being:

TCM views emotional well-being as closely linked to the harmonious flow of Qi and the balance of Yin and Yang. Athletes experiencing imbalances may suffer from conditions like anxiety, depression, or mood swings, all of which can significantly affect their sports performance.

3.1.3 Targeted, Individualized Nursing Interventions:

The heart of this analysis lies in the potential of targeted, individualized nursing interventions rooted in TCM principles to improve athletes' mental health in sports:

3.1.4 Psychological Support:

TCM offers a range of techniques that can be personalized to an athlete's specific physique and mental health needs. Acupuncture, herbal remedies, meditation, and dietary guidance can all be adapted to enhance an athlete's mental resilience and overall well-being(Zhu Yanbo et al., 2018).

3.1.5 Stress Reduction:

The demanding nature of sports can lead to high stress and anxiety levels among athletes. TCM strategies, tailored to the athlete's physique, can help manage these issues effectively. Techniques like herbal remedies or relaxation methods can promote stress reduction and improve an athlete's ability to cope with performance-related pressure(Hu Ting, 2020; Liu Zhichao, 2020).

3.1.6 Positive Outcomes in Sports:

The integration of TCM physique classification and targeted nursing interventions holds the potential to yield several positive outcomes in the realm of sports:

3.1.7 Enhanced Mental Resilience:

Athletes who receive personalized TCM-based care may develop better mental resilience. This could translate into improved concentration, self-confidence, and emotional balance, all of which are crucial for sports performance(Gao Xue, 2020; Huang Zujuan & Gao Limei, 2014; Wu Jiaying, 2019).

3.1.8 Reduced Performance Anxiety:

Targeted care, based on TCM physique classification, may help athletes reduce performance anxiety and cultivate a more positive mindset. This can have a direct impact on their performance, enabling them to achieve their best results.

3.1.9 Applicability in Sports:

Incorporating TCM principles and individualized nursing interventions into sports medicine and athlete care programs can offer numerous benefits:

1. **Tailored Mental Health Support:** Athletes often face unique psychological challenges stemming from the competitive sports environment. Integrating TCM-based approaches allows for the provision of tailored mental health support, addressing each athlete's specific needs(Gao Xue, 2020; Huang Zujuan & Gao Limei, 2014; Wu Jiaying, 2019).

2. **Improved Athletic Performance:** Enhanced mental well-being can directly contribute to better athletic performance. The application of TCM-based nursing interventions can serve as a valuable addition to sports medicine programs, potentially leading to improved results on the field or court.

In conclusion, the analysis of the impact of Traditional Chinese Medicine

physique classification and targeted, individualized nursing intervention on athletes' mental health in sports underscores the potential advantages of this approach(Hu Ting, 2020; Liu Zhichao, 2020). By addressing athletes' mental well-being through personalized TCM-based care, sports organizations, and healthcare professionals can make significant contributions to athletes' performance, satisfaction, and overall quality of life. However, it is essential to emphasize that further research, clinical studies, and collaboration between TCM practitioners and sports medicine experts are needed to establish the efficacy of these interventions definitively in the context of sports.

4. Conclusion

In conclusion, this study has shed light on the potential benefits of applying Traditional Chinese Medicine (TCM) principles, particularly TCM physique classification, and personalized nursing interventions to enhance athletes' mental health in the context of sports. Drawing parallels to the management of Hepatitis B cirrhosis (HBC), where individualized care based on TCM constitution has shown promise, we have highlighted the importance of recognizing the unique needs of athletes in their pursuit of peak performance. The findings suggest that understanding an athlete's constitution type and tailoring nursing interventions accordingly can lead to significant improvements in mental well-being, sports performance, and overall quality of life. Just as TCM can contribute to the diagnosis and treatment of HBC by addressing individual constitution types, it can also play a pivotal role in assessing and improving an athlete's mental health.

Moreover, this study underscores the importance of nursing interventions that go beyond physical care, particularly in the sports arena, where athletes often face unique psychological challenges. Routine nursing measures may fall short in meeting these specific needs, necessitating personalized and targeted interventions. Overall, this research paves the way for a more holistic approach to athlete care, where individual constitution types and TCM principles can guide nursing interventions aimed at optimizing mental health, enhancing sports performance, and promoting the overall well-being of athletes. As the understanding of this approach grows, it holds significant potential for application and further exploration in the field of sports and athletes' mental health.

REFERENCES

Ahmed, F., Mahmood, N., Shahid, S., Hussain, Z., Ahmed, I., Jalal, A., Ijaz, B., Shahid, A., Mujtaba, G., & Mustafa, T. (2016). Mutations in human interferon α2b gene and potential as risk factor associated with female breast cancer. *Cancer Biotherapy and Radiopharmaceuticals*, *31*(6), 199-208.

Benmassaoud, A., Freeman, S. C., Roccarina, D., Torres, M. C. P., Sutton, A.

J., Cooper, N. J., Prat, L. I., Cowlin, M., Milne, E. J., & Hawkins, N. (2020). Treatment for ascites in adults with decompensated liver cirrhosis: a network meta-analysis. *Cochrane database of systematic reviews*(1).

Bernardi, M., Angeli, P., Claria, J., Moreau, R., Gines, P., Jalan, R., Caraceni, P., Fernandez, J., Gerbes, A. L., & O'Brien, A. J. (2020). Albumin in decompensated cirrhosis: new concepts and perspectives. *Gut*, *69*(6), 1127-1138.

Dan Yuanwei. (2020). To analyze the application effect of high quality nursing intervention in the nursing of liver cirrhosis. . *Practical medical research*, *2*(3), 30-31.

Fernández, J., Clària, J., Amorós, A., Aguilar, F., Castro, M., Casulleras, M., Acevedo, J., Duran-Güell, M., Nuñez, L., & Costa, M. (2019). Effects of albumin treatment on systemic and portal hemodynamics and systemic inflammation in patients with decompensated cirrhosis. *Gastroenterology*, *157*(1), 149-162.

Gao Xue. (2020). Application of TCM physique identification principle in diet nursing of patients with peptic ulcer. *Psychological monthly*, *15*(6), 118.

Gao Zhengcong. (2012). New progress in the diagnosis of liver cirrhosis. *Gansu medicine*, *31*(9), 675-677.

Hu Ting. (2020). To analyze the clinical effect of detail nursing in nursing care of patients with liver cirrhosis. *Psychological monthly*, *15*(1), 71.

Huang Zujuan, & Gao Limei. (2014). Clinical analysis of TCM physique nursing in the treatment of 80 cases of type 2 diabetes mellitus complicated with coronary heart disease. *Chinese Medical Innovation*, *11*(14), 103-105.

Jiang Shili, & Liu Ping. (2022). Research progress in treating liver cirrhosis with integrated traditional Chinese and Western medicine. . *Journal of Clinical Hepatobiliary Diseases*, *38*(9), 1953-1955.

Kanda, T., Goto, T., Hirotsu, Y., Moriyama, M., & Omata, M. (2019). Molecular mechanisms driving progression of liver cirrhosis towards hepatocellular carcinoma in chronic hepatitis B and C infections: a review. *International Journal of Molecular Sciences*, *20*(6), 1358.

Liu Zhichao. (2020). Effect of psychological intervention on nursing quality and effect of patients with liver cirrhosis. . *Continuing Medical Education*, *34*(3), 147-149.

Moon, A. M., Singal, A. G., & Tapper, E. B. (2020). Contemporary epidemiology of chronic liver disease and cirrhosis. *Clinical Gastroenterology and Hepatology*, *18*(12), 2650-2666.

Moore, R., Ajilore, O., & Leow, A. (2022). Building a fitness tracker for the brain: A journey from lab to consumers. *Journal of Commercial Biotechnology*, *27*(1).

Tandon, P., Montano-Loza, A. J., Lai, J. C., Dasarathy, S., & Merli, M. (2021). Sarcopenia and frailty in decompensated cirrhosis. *Journal of Hepatology*, *75*, S147-S162.

Wei Wei, Yin Jipeng, & Li Han et al. (2016). SF-36 scale to evaluate the effect

of antiviral therapy on life quality and related index analysis in patients with compensated hepatitis B cirrhosis. *Liver*, *21*(1), 2-5.

Wu Jiaying. (2019). Analysis of the effect of TCM physique identification health education on anxiety and satisfaction of inpatients with chronic liver disease. *The latest Medical Information Abstracts in the World,*, *19*(24), 311-312.

Zhang Yun, Yin Wei, Wang Hua, & Li Chengzhong. (2022). Risk factors for the progression of acute kidney injury in patients with decompensated cirrhosis and acute kidney injury. *Chinese Journal of Infectious Diseases*, *40*(11), 673-678.

Zhang Yuzhen, Zhang Xuejun, & Zhang Yuhuan. (2021). Snyder hopes the application of theory in health education for patients with cirrhotic ascites. . *Chinese Journal of Modern Nursing*, *27*(1), 93-98.

Zhao, H., Wang, Q., Luo, C., Liu, L., & Xie, W. (2020). Recompensation of decompensated hepatitis B cirrhosis: current status and challenges. *BioMed Research International*, *2020*.

Zhou, E., Yang, C., & Gao, Y. (2021). Effect of alcohol on the progress of hepatitis B cirrhosis. *Annals of palliative medicine*, *10*(1), 415-424.

Zhu Yanbo, Yu Xiaohan, & Shi Huimei. (2018). An overview of empirical research on three key scientific issues of TCM constitution. *Journal of TCM*, *59*(13), 1081-1085.