



An Experimental Analysis of Alternative Medical Information Application for Chronic Fatigue Treatment

Seong-Ran Lee

Department of Medical Information, Kongju National University, Chungnam

Email: leesr@kongju.ac.kr

ABSTRACT

This study is to conduct an experimental analysis of the application of alternative medical information for chronic fatigue treatment. This study conducted surveys and interviews of 112 people from May 7 to July 15, 2020. The data analysis was used as χ^2 -test for basic information. The comparison of health behaviors before and after the application of alternative medical information was analyzed as t-test. The findings are as follows. Firstly, in the case of sleep quality, 66.1% of experimental group was significantly higher than 44.6% of the control group when the quality of sleep was poor ($\chi^2=2.84$, $p<.05$). Secondly, the intake of sprout barley increased significantly from 50.27 points on mean after the application of alternative medical information to 25.49 points on mean before application ($t=-3.61$, $p<.01$). Thirdly, chronic fatigue decreased after two days of application than before the application of the experimental group. Based on the results obtained, it was confirmed that the application of alternative health information has a positive effect on reducing chronic fatigue. This may contribute to the treatment of other chronic diseases.

Key words: Alternative medical information, Chronic fatigue, Treatment, Application

Received 06.04.2021

Revised 20.04.2021

Accepted 22.06.2021

INTRODUCTION

As stress increases and life becomes more complicated, more and more people are complaining of chronic fatigue. Recently, various harmful substances are piled up in the body due to various factors such as air pollution, westernized eating habits, and stress. Among them, active oxygen, a substance that causes fatigue that cannot be easily resolved, is threatening the health of modern people [1],[2].

Chronic fatigue lasts for more than six months. It can lead to frequent work mistakes, stress, and emotional control due to poor concentration. Figure 1 shows the causes of chronic fatigue. Chronic fatigue can cause great disruption to everyday life. For a long time, unprovoked fatigue is repeated, and one may feel physically and psychologically tired. Chronic fatigue should not be left unattended because the immunity to disease may gradually decrease. The incidence of chronic fatigue syndrome increased by 20% in 2019 compared to 2017. Women with chronic fatigue have a higher incidence of uterine diseases such as uterine myoma and ovarian cyst [3],[4].

We need to check people's physical condition and check their liver function. Continuing chronic fatigue means the body is defenseless, prone to disease. If chronic fatigue persists, even mild illness can cause complication. The reason for chronic fatigue is the accumulation of fatigue. Fatigue builds up in our lifestyle, activity until late hours, smoking more than a pack a day, physical overwork and etc. five us a little bit of fatigue. Once or twice of fatigue is fine, but as fatigue adapts to our bodies and becomes habitual. It naturally builds up in our bodies [5],[6].

The older people get, the more people feel chronic fatigue. People can feel extreme fatigue even if they are often stressed mentally or have a lot of worries all the time. If people add physical fatigue to this stress, people can feel tired enough to make their daily life difficult. Managing stress is also important. People get chronic fatigue when they lose their liver function. If liver function is degraded, normal detoxification is not performed, so the fatigue is not relieved as toxins accumulate in the body [7],[8].

If people want to be physically, mentally, and in good condition, they have to deal with chronic blood. In the preceding studies, most of the studies are on prevalence and clinical characteristics of chronic fatigue. However, research on the efficacy of applying alternative medical information to treat chronic fatigue is insufficient. Therefore this study is to conduct an experimental analysis of the application of alternative medical information for chronic fatigue treatment. It is to improve the quality of life by measuring the effectiveness of providing alternative health information for chronic fatigue treatment.

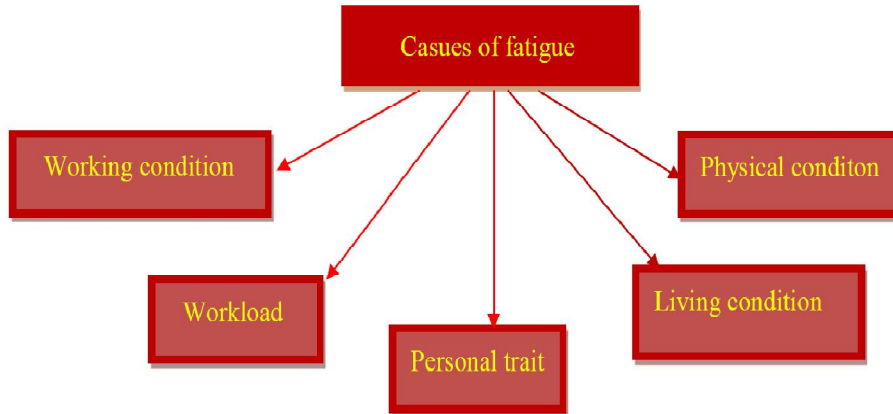


Figure 1. Causes of Chronic Fatigue

MATERIAL AND METHODS

Overall Framework

Figure 2 points to the overall framework of health information for the treatment of chronic fatigue. The contents are as follows : 1) Participants' information, 2) Applying to participants, 3) Measurement of effect 4) Experimental results 5) Persistence of physical condition

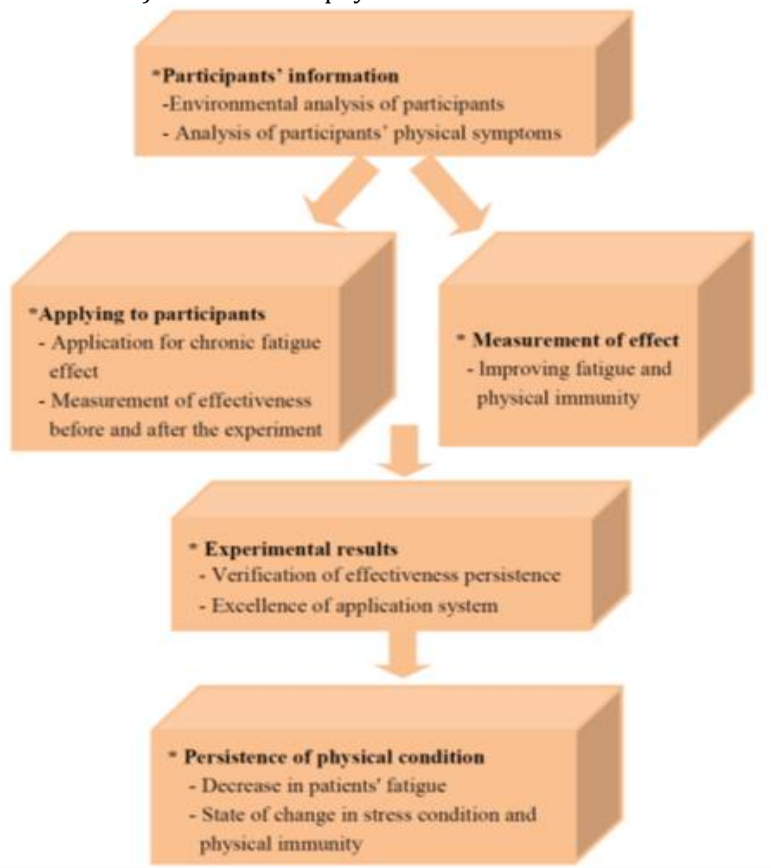


Figure 2. Frame of Application of Alternative Medical information for Treatment of Chronic Fatigue

Materials

This study conducted surveys and interviews of 112 people from May 7 to July 15, 2020. It is classified as 56 members of the experimental group and 56 members of the control group. Specific criteria for selecting the target are as follows: a person who has visited the hospital complaining of chronic fatigue for more than six months. a person who understands the purpose of this study and is able to communicate

Ethical Considerations

In this study, the purpose, method, and anonymity of the research were explained before the questionnaire was implemented. It also explained that it could be stopped even during research and targeted those who agreed.

Methods

The basic information of the subjects was carried out X²-test. The comparison of health behavior before and after health information application was analyzed by t-test. The persistence of patients' physical condition was measured for 5, 10, 15, 20 and 25 days.

RESULTS**Basic Information of the Subjects**

Table 1 points out the basic information of the subjects. About the stress state of stress, 69.6% of the experimental group were significantly higher than 42.9% of the control group in the case of strong stress(X²=5.72, p<.05). in the case of sleep quality, 66.1% of experimental group was significantly higher than 44.6% of the control group when the quality of sleep was poor(X²=2.84, p<.05)

Table 1. Basic information of the Subjects

Variables	Experimental group N(%)	Control group N(%)	X ²
Gender			
Men	31(55.4)	24(42.9)	2.18
Women	25(44.6)	32(57.1)	
Age/years			
<50	7(12.5)	10(17.9)	10.35
50-59	15(26.8)	21(37.5)	
60-69	23(41.1)	16(28.6)	
≥70	11(19.6)	9(16.1)	
BMI			
<18.5	15(26.8)	17(30.4)	7.54
18.5-24.9	10(17.9)	13(23.2)	
≥25	31(55.4)	26(46.4)	
Stress status			
Strong	39(69.6)	24(42.9)	5.72*
Weak	17(30.4)	32(57.1)	
Quality of sleep			
Good	19(33.9)	31(55.4)	2.84*
Bad	37(66.1)	25(44.6)	
Chronic diseases			
Yes	35(66.1)	17(30.4)	4.69
No	21(33.9)	39(69.6)	
Fatigue status			
Appropriate	15(26.8)	30(53.6)	1.75*
Inappropriateness	41(73.2)	26(46.4)	
Total	56(100.0)	56(100.0)	

* p<.05

Comparison of Health Behavior Before and After Health Information Application

Table 2 points out the health behavior before and after health application of information. The intake of sprout barley increased significantly from 50.27 points on mean after the application of alternative medical information to 25.49 points on mean before application(t=-3.61, p<.01)

Table 2 Comparison of Health Behavior Before and After Health Information Application

Variables	Before	After	T
	Mean±S.D.	Mean±S.D.	
Quality of sleep	35.97±1.83	44.61±2.74	-0.52**
Stress status	47.21±3.74	41.59±3.20	1.96
Music listening	36.84±0.21	52.84±0.29	-0.29**
Sprout barley	25.49±0.95	50.27±1.92	-3.61**
Acupressure	38.57±3.84	45.75±3.58	-1.45**
Garlic intake	42.18±1.60	53.91±1.52	-0.81**
Sunshine	48.55±2.72	54.17±3.74	-1.32*
Jogging	34.79±0.96	49.38±0.61	-4.58**
Stretching	39.67±4.82	53.61±2.59	-1.63**
Moxibustion	26.51±0.75	38.27±0.83	-0.94*
Sujichim	21.48±3.58	40.60±3.42	-3.17**

* p<.05 ** p<.01

Physical Condition of the Patients

Figure 3 shows the physical condition of the patients before and after the application of the information. Chronic fatigue decreased after two days of application than before the application of the experimental group. However, fatigue has increased again since the 24 days. Stress decreased slightly after system application than before information system and increased again after 16 days

Figure 4 shows the physical condition of the patients before and after the application of the information. Fatigue continued to decrease after health information was applied. However, fatigue has increased again since the 20th.

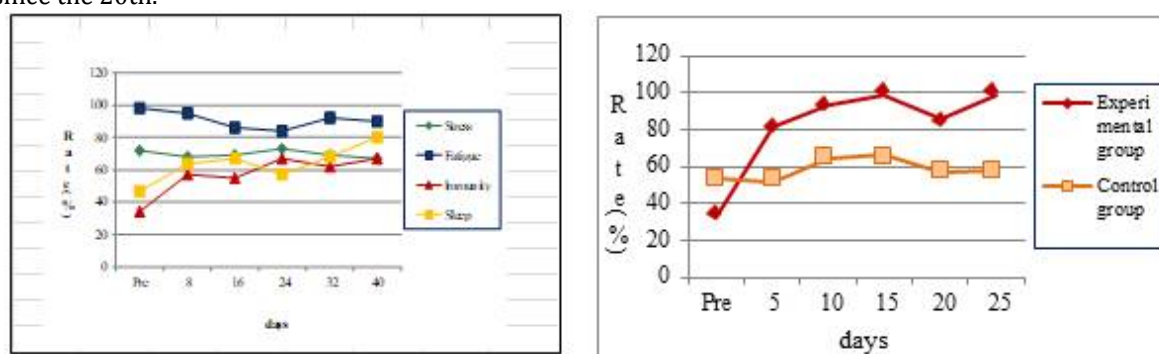


Figure 3. Physical Condition of the Patients

DISCUSSION

This research analyzes the effects of measurement on alternative health information for chronic fatigue treatment. Chronic fatigue decreased significantly after the intake of sprout barley, which is applied to alternative health information. The study showed similar results to fatigue in patients with chronic diseases[9],[10]. Sprout barley contains a large amount of policosanol, which acts as a vascular cleaner, helping to remove chronic fatigue. Health functional foods are useful for health as nutrients that are likely to be deficient in everyday life or as raw materials that have useful functions for the human body. However, chronic fatigue can't be treated in one way because it can be caused by a variety of causes. When chronic fatigue occurs, it signals the whole body, reducing the body's immune system. In order to reduce chronic fatigue, we think it is effective to keep eating healthy foods such as chaga mushrooms and sprout barley.

The sunlighting was significantly higher after application than before alternative medical information application. Chronic fatigue decreased significantly after sunburn than before. This is similar to the studies of chronic hepatitis in preceding studies[8],[11]. The information used in this study is expected to be helpful in treating chronic fatigue. The results from this study are expected to help patients who feel tired of other diseases. Physical immunity had increased after application of it than before application of the information. To relieve chronic fatigue, it is also regular exercise and stretching. Stretching for a minute or two a day can activate the body's immunity. However, exercise intensity should be limited to

60 percent of the maximum oxygen consumption and should be careful not to increase it further. Stretching neck joints is effective for office workers who often sit on chairs. First, relax and slowly turn people's neck three times from side to side while sitting down. Relaxing the tense neck muscles prevents the neck bones from becoming stiff. If people feel uncomfortable with their shoulders clumping, they can move on to stretching that part. If they pull their elbow to the left with their right arm stretched out. They can reduce tension.

The results of this paper will contribute to reducing fatigue in patients with weak immune systems. The significance of this study is that food and exercise that can improve immune system function are effective for chronic fatigue.

CONCLUSION

This study aims to measure the effectiveness of alternative health information for chronic fatigue treatment. The findings are as follows. Firstly, in the case of sleep quality, 66.1% of experimental group was significantly higher than 44.6% of the control group when the quality of sleep was poor ($X^2=2.84$, $p<.05$) Secondly, the intake of sprout barley increased significantly from 50.27 points on mean after the application of alternative health information to 25.49 points on mean before application ($t=-3.61$, $p<.01$). Thirdly, chronic fatigue decreased after five days of application than before the application of the experimental group. Based on the results obtained, it was confirmed that the application of alternative health information has a positive effect on reducing chronic fatigue. This may contribute to the treatment of other chronic diseases.

REFERENCES

1. Colson G. I. Rosenblatt S. De Mattos G. F. Settineri R, Breeding P. C, Ellithorpe R. R, and Ash M. E, (2016). Clinical Uses of Membrane Lipid Replacement Supplements in Restoring Membrane Function and Reducing Fatigue in Chronic Diseases and Cancer, Discoveries (Craiova), Vol.4, No. 1, 90-98
2. Nicoline B. M. Gijs B, George W, Padberg G. M. Baziél V. Engelen C. H. Alexander, G. (2010). Effect of Aerobic Exercise Training and Cognitive Behavioural Therapy on Reduction of Chronic Fatigue in Patients with Facioscapulohumeral Dystrophy : Protocol of the FACTS-2-FSHD Trial, BMC Neurology, Vol. 10, No. 1:08-12
3. Kalkman J. S. Schillings M. L. Zwarts M. J. Van E. Baziél G. M, and Bleijenberg G. (2007). The Development of A Model of Fatigue in Neuromuscular Disorders : A Longitudinal Study, Journal of Psychosomatic Research, Vol. 62, No. 5, 10-12.
4. Voet N. Bleijenberg G. Hendriks J. Imelda de G. Padberg, G, Engelen B. V. and Geurts A, (2014). Both Aerobic Exercise and Cognitive-behavioral Therapy Reduce Chronic Fatigue in FSHD : An RCT, American Academy of Neurology, Vol. 83, No.21. 22-25
5. Kyungeh, Nancy, J, Victoria, M, Patricia, K, Lynne, W, Robins A, and Angela S. (2015). Integrative Review of Co-Occurring Symptoms Across Etiologies of Chronic Liver Disease and implications for Symptom Management Research and Practice, Journal of Nursing Scholarship, 2015, 47(4):12-16
6. Twomey R, Aboodarda S. J, Kruger R, Culos-Reed, S. N. Temesi J. and Millet G. Y, (2017). Neuromuscular Fatigue During Exercise : Methodological Considerations, Etiology and Potential Role in Chronic Fatigue, Neurophysiologie Clinique/Clinical Neurophysiology, Vol. 47, No. 2, pp. 95-97
7. Lynn H. G, Weinstein A, Rohini M, and Zobair Y, (2019). Importance of Fatigue and Its Measurement in Chronic Liver Disease, World Journal of Gastroenterology, Vol. 25, No. 8:15-18
8. Derek A, Frank E. M, Jack C, Alan S, Gibson C, Mike I. L. and Timothy D. N, (2001). Evidence for Neuromuscular Fatigue During High-intensity Cycling in Warm, Humid Conditions, Arbeitsphysiologie, Vol. 84, No. 1, pp. 115-116,
9. Horigan A. E, Fatigue in Hemodialysis Patients (2012), J Pain Symptom Manage, 2012, Nov, Vo. 44, No. 5, pp. 715-24.
10. Kristin V. R., Jon H. L, Mette B. and Cecilie, E. K. (2017). Chronic Fatigue in Adult Cancer Survivors, Tidsskrift for den Norske Laegeforening, Vol. 137, No. 21:9-12
11. Landmark-Høyvik H, Reinertsen K. V, Loge J. H, Fosså S. D, Børresen-Dale A. L. and Dumeaux V, (2009). Alterations of Gene Expression in Blood Cells Associated with Chronic Fatigue in Breast Cancer Survivors, Pharmacogenomics Journal, Vol. 9, No. 5, pp. 333-3334

CITATION OF THIS ARTICLE

Seong-Ran Lee. An Experimental Analysis of Alternative Medical Information Application for Chronic Fatigue Treatment. Bull. Env. Pharmacol. Life Sci., Vol10 [7] June 2021 : 98-102