Study on early warning treatment of senile depression in community based on artificial intelligence model

Jiali Xiao[1,2], Yifeng Li[1], Lihua Li[1] and Yan Tian[1]*

[1]Beijing Institute of Technology Zhuhai, Zhuhai 519000, China and [2]Universiti Sains Malaysia, Penang 11800, Malaysia
*Corresponding author.

Background. In recent years, with the acceleration of population aging in China, the number of elderly people with depression is increasing. Artificial intelligence models and data analysis have sound applications in the early warning and treatment of the elderly with depression in the community by finding the elderly with depression timely and carrying out early warning treatment for them.

Subjects and Methods. 50 elderly people with depression, from two communities of equal size, were randomly selected to participate in the experiment. Among them, one community adopts routine management and treatment, and the other community conducts early-warning treatment based on an artificial intelligence model and data analysis. The former and the latter were used as the observation group and the intelligent group respectively. All the elderly were evaluated according to the Geriatric Depression Scale (GDS) before and 6 months after the experiment.

Results. The GDS scores of the elderly in the observation group and the intelligent group before and after the experiment are shown in Table 1. The GDS scores of the observation group and the intelligent group are close before and after the experiment from Table 1. Six months after the experiment, the GDS scores of the intelligent group are significantly lower than that of the observation group. In this experiment, $P < 0.0$ indicates that the difference is statistically significant.

Conclusions. According to statistics, the incidence rate of depression in the elderly can reach 10%, so it is necessary to strengthen the early warning and treatment of depression symptoms in the elderly. The artificial intelligence model and data analysis can help find the depressive symptoms of the elderly in the community as early as possible, and help take measures to carry out early warning treatment, thereby improving the depressive situation.

Table 1. GDS score results of the two groups of elderly before and after the experiment

Group	Project	GDS score before the experiment	GDS score after the experiment
Observation group	Score	17.18±1.45	14.71±1.13
	t	0.125	1.234
	P	0.034	0.039
Intelligent group	Score	16.31±1.27	10..28±0.97
	t	0.243	1.314
	P	0.019	0.028

Analysis of the influence of positive psychotherapy on the improvement of re drinking among alcohol dependent people from the perspective of ideology and politics

Yan Wang

Shaoxing University, Shaoxing 312000, China

Background. Alcohol dependence is a chronic and recurrent brain disease of central nervous system poisoning caused by long-term excessive drinking. The prevalence of alcohol-dependence patients in China shows a rising trend year by year. Alcohol dependence will not only cause serious harm to patients' physical health and mental state, but also affect their family relations and even entire social security. The study evaluated the improvement of psychological intervention measures on alcohol-dependent people's rehydration in the context of the Great Thought Policy to help them better reduce alcohol dependence.

Subjects and Methods. The study selected 200 patients with alcohol dependence admitted to a provincial hospital. The patients were divided into an experimental group and a control group by the random number table method. Both groups were treated with the same drug intervention. Among them, the patients in the experimental group were treated under active psychotherapy, that is, the responsible nurse combined psychological knowledge with ideological guidance to guide the patients to quit drinking. The control group was given routine psychological intervention. The patients were investigated with Symptom Checklist 90 (SCL-90) and telephone follow-up. The data were processed with SPSS 17.0 statistical software, and $P < 0.05$ indicated that the difference was statistically significant.

Results. Results showed that the rehydration rate and rehospitalization rate of the experimental group were lower than those of the control group, and the mental health status of the patients in the experimental group was significantly improved compared with the control group ($P < 0.05$), indicating that the psychological measures under the ideological and political intervention can effectively control the patients' emotions.

Conclusions. The experimental results show that the combination of ideological guidance and positive psychological knowledge, and the guidance and intervention of patients can effectively reduce their alcohol relapse, improve the level of mental health, and achieve the effect of successful abstinence.

Table 1. Comparison of rehydration rate, rehospitalization rate and psychological status of patients before and after the treatment

Groups	Rehydration rate	Rehospitalization rate	Rehospitalization rate of rehydration	SCL-90
Experimental group	22 (22.00%)	19 (19.00%)	19/22 (86.36%)	10.23 ± 0.33
Control group	24 (24.00%)	21 (21.00%)	21/24 (87.50%)	18.24 ± 0.78
χ^2 values	4.262	3.285	0.396	3.298
P values	0.004	0.032	0.041	0.002

Adjusting intervention of trade war subjective feelings: An analysis of the relationship between psychological characteristics and mental health of foreign trade workers

Ye Cao

Inner Mongolia University of Finance and Economics, Hohhot 010000, China

Background. With the development of the economy and society and the further increase of social competition pressure, people often encounter some difficulties or pressure in academics, employment, economy, interpersonal relationship, marriage and other aspects. Mental health problems occur frequently. The burden of illness caused by mental health is growing. In recent years, it has had the greatest impact on our country's foreign trade industry. The most profound social event is the China–United States trade war. On March 22, 2018, the US announced an additional 25 percent tariff on $60 billion of Chinese goods. On March 23, China retaliated by imposing additional tariffs on $3 billion of imported goods from the US, marking the official start of the "China–United States trade war". Mental health is an important part of people's health. Without a healthy mind, there will be no healthy life. In recent years, with the rapid development of the global mental health movement, the attention of all walks of life to mental health has reached a new height. The researchers investigated or studied the mental health status of teachers, school students, police officers, medical personnel, workers, left-behind children, sailors and supervised personnel from various perspectives. Based on the above, the study analyzes the impact of the trade war on the psychological characteristics and mental health of foreign trade employees and the relationship between them, in order to improve the anxiety of foreign trade employees.

Subjects and Methods. The research data was obtained through a questionnaire survey. At the beginning of the questionnaire, unified guidance is used to introduce the nature, purpose and filling method of the survey. The respondents are asked to select the corresponding answer for each item in a secret way according to their actual situation. The questionnaire is distributed centrally and filled out separately. The original data obtained from the questionnaire contains 438 samples, some of which have problems such as the mission of question filling, inconsistency of key information, and continuous selection of the same options in each question of the same scale, which need to be excluded. After pretreatment, the sample size was 354, and the sample effective rate was 81%. Stata16.0 software and SPSS22.0 software were used for the calculation and statistics of relevant data.

Results. As shown in Figure 1, under the psychological intervention of trade war subjective perception adjustment for foreign trade practitioners, scores of all index of Well-Being scales were significantly higher than before the intervention ($P < 0.01$).

Conclusions. The results of this study show that after the intervention mechanism of trade war subjective perception regulation, all the scores of indexes of Well-Being scale are significantly higher than before the intervention ($P < 0.01$), indicating that the trade war subjective perception regulation mechanism is intervening in the psychology of foreign trade practitioners, which can improve the work happiness of foreign trade practitioners. Avoiding social events such as the China–United States trade war may aggravate their psychological symptoms and reduce their mental health.
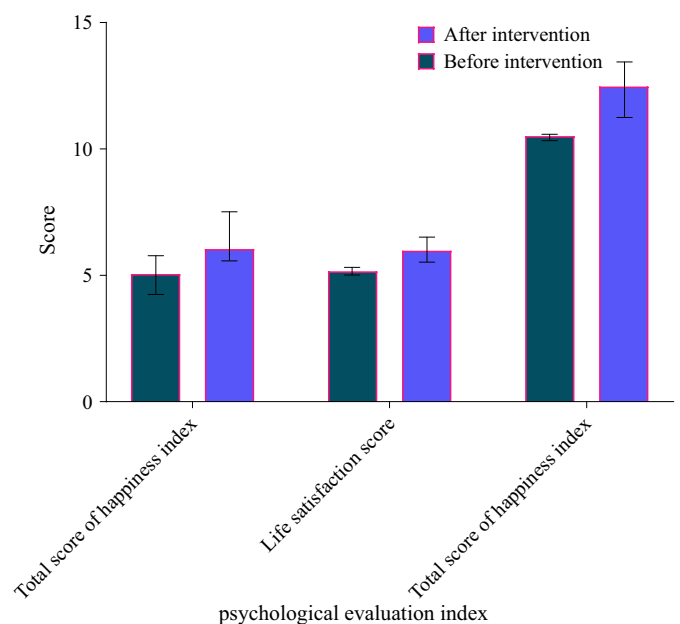

Figure 1. Scores of index of Well-Being scale before and after the intervention