A Survey on the Psychological Condition of People Returning to Work in a Shopping Mall in Xi'an New District, Shaanxi Province

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Abstract

Objective: To understand the psychological status of returning workers in a shopping mall in Shaanxi Province. **Methods:** A questionnaire survey was conducted on 500 returning workers in a shopping mall in Xi'an New District, Shaanxi Province, applying the Symptom Self-Rating Scale (SCL-90), and the data were analyzed descriptively using SPSS19.0 statistical software. t-test was used to compare the overall means of two independent samples, and ANOVA was used to compare the overall means of multiple independent samples. **Results:** Among the 500 returned-to-work workers, 325 (65%) had different degrees of psychological problems, including 102 somatization, 132 obsessive-compulsive symptoms, 74 interpersonal sensitivity, 80 depression, 301 anxiety, 325 terror, 17 paranoia, and 17 poor sleep and diet. The differences in the mean scores of all factors in the psychological status of the returnees by gender were statistically significant ($P < 0.05$), except for the factors of interpersonal sensitivity, anxiety, paranoia, and psychoticism; the mean scores of the factors of anxiety, hostility, paranoia, psychoticism, sleep, and diet were significantly different ($P < 0.05$) among the returnees by age; the psychological status of the returnees by education, except for the factors of somatization, depression, terror, sleep, and diet, were statistically significant ($P < 0.05$). There were significant differences ($P < 0.05$) in the mean scores of the four factors of somatization, depression, phobia, sleep and diet among the returnees with different education levels. **Conclusion:** During the period of novel coronavirus pneumonia, 65% of the returning workers in shopping malls had negative psychology, and appropriate measures should be taken for them.

Keywords

Returned Workers, Psychological Condition, Novel Coronavirus Pneumonia

1. Introduction

Since the outbreak of the new coronavirus pneumonia, governments at all levels in China have responded to the call for epidemic prevention, while taking appropriate protective measures [1], through the joint efforts of the people of the country, the domestic epidemic has been controlled, and various industries have started to resume work and production, and gradually get back on track. As shopping malls are a crowded place, it is inevitable that the resumption of work will have a certain impact on the psychology of the resumed workers when the epidemic has not completely subsided and the situation abroad is severe. In order to understand the psychological reactions of

the resumed workers in the mall, this paper assessed the psychological status of the resumed workers in a mall in Xi'an New District, Shaanxi Province, in order to provide a basis for specific psychological interventions to prevent and reduce the occurrence of psychological problems among the resumed workers.

2. Objects and methods

2.1 Objects

Five hundred people who returned to work in a shopping mall in Xi'an New District, Shaanxi Province were selected, and the purpose and significance of this survey were introduced to them and their consent was obtained, including 232 men and 268 women; age 21-67 (42.61 ± 13.12), 178 people aged 21-35, 149 people aged 36-50, 173 people aged 51-67; 312 people with high school education and below, 312 people with high school 188 people with education above.

2.2 Methods

2.2.1 Survey Methodology

The Symptom Self-Rating Scale (SCL-90) was applied to assess the return-to-work individuals. The scale consists of 90 self-rated items involving 10 factors of somatization, obsessive-compulsive symptoms, interpersonal sensitivity, depression, anxiety, hostility, phobia, paranoia, psychoticism, sleep, and eating, each rated on a 5-point scale. The scale has good reliability with a content validity of 0.96-0.97, a probability coefficient of 0.968, and a reliability index of 0.962 [2]. According to the national normative results, a total score of more than 160, or a number of positive items of more than 43, or a score of more than 2 for any factor can be screened as positive [3]. Questionnaires were distributed to 500 study subjects through Questionnaire Star and they were instructed to self-assess, and 500 questionnaires were returned, with a valid return rate of 100%.

2.2.2 Statistical methods

The data were analyzed descriptively using SPSS 19.0 statistical software. t-test was used for the comparison of overall means of two independent samples, and ANOVA was used for the comparison of overall means of multiple independent samples.

3. Results

Among the 500 returning workers in this survey, a total of 325 (65%) had psychological problems, of which (1) the psychological conditions of returning workers of different genders: the percentage of women presenting symptom factor scores ≥ 2 was mostly higher than that of men, and the differences in the mean scores of all factors except interpersonal sensitivity, anxiety, paranoia, and psychotic factor were statistically significant ($P < 0.05$), see Table 1; (2) the psychological conditions of returning workers of different Psychological status of the returnees of different ages: the older the age, the more the number of somatization, interpersonal sensitivity, paranoia, sleep and diet factor scores ≥ 2 , and the less the number of obsessive-compulsive symptoms, anxiety, and terror factor scores ≥ 2 , among which, the mean scores of anxiety, hostility, paranoia, psychopathy, sleep and diet factor had significant differences ($P < 0.05$), see Table 2; (3) Psychological status of the returnees of different education (4) Psychological status of the returnees with different education levels: more returnees with high school education or above had obsessive-compulsive symptoms and depression factor scores ≥ 2 than those with high school education or below, and fewer had anxiety and terror factor scores ≥ 2 . There was no significant difference in the percentage of returnees with 4 symptom factor scores ≥ 2 in somatization, interpersonal sensitivity, paranoia, sleep and diet, except for somatization, depression, terror, sleep and diet factor scores. There was a significant difference ($P < 0.05$) in all of them except for the four factor scores of somatization, depression, terror, sleep and eating, as shown in Table 3.

4. Discussions

4.1 The psychological condition of the resumed workers in the mall

In January-March 2020, the novel coronavirus pneumonia made the city of Wuhan the focus of global attention [4, 5], which has caused even more impact than the SARS epidemic 17 years ago and has become a common enemy of humanity [6]. Wang Yuxin [7] found that in the face of major emergencies, people tend to experience social group stress, i.e., stressful states such as fear and anxiety, which may lead to the formation of psychological stress disorder if not regulated in time. The results of this survey show that 325 (65%) of the 500 returned-to-work personnel have different degrees of psychological problems, including 102 somatization, 132 obsessive-compulsive

symptoms, 74 interpersonal sensitivity, 80 depression, 301 anxiety, 325 terror, 17 paranoia, 17 poor sleep and diet, with the majority of anxiety and terror, indicating that there are already some returned-to-work. The number of anxiety and terror is high, which indicates that there is already a part of psychological stress among the workers. Some scholars found that women, people of low age and low education are more likely to have nervous and fearful psychological states [8], which is similar to the results of this study.

Table 1. Distribution of SCL-90 scores for each factor and the number of people with ≥ 2 scores among those who returned to work by gender

Factor	Gender				t	P
	Male		Female			
	Rating ($\bar{x}\pm s$)	≥ 2 points [Number (%)]	Rating ($\bar{x}\pm s$)	≥ 2 points [Number (%)]		
Somatization	1.28±0.21	44(18.97)	1.37±0.42	58(21.64)	-3.09	<0.001
Compulsive symptoms	1.39±0.40	57(24.57)	1.41±0.51	75(27.99)	-4.91	<0.001
Interpersonal sensitivity	1.24±0.41	34(14.66)	1.27±0.43	40(14.93)	-0.566	0.456
Depression	1.25±0.37	32(13.79)	1.27±0.42	48(17.91)	-2.666	0.047
Anxiety	1.70±0.48	127(53.45)	1.89±0.51	174(64.93)	-0.729	0.343
Hostile	0.39±0.21	0(0.00)	0.51±0.11	0(0.00)	-7.824	<0.001
Terror	1.88±0.42	133(57.33)	1.91±0.50	192(71.64)	2.846	0.007
Paranoia	0.82±0.10	11(4.74)	0.71±0.09	6(2.24)	-2.269	0.096
Psychogenic	0.17±0.12	0(0.00)	0.20±0.13	0(0.00)	-0.795	0.21
Sleep and Diet	0.67±0.08	8(3.45)	0.74±0.11	9(3.36)	-8.208	<0.001

Table 2. Distribution of SCL-90 scores for each factor and the number of people with ≥ 2 scores among those who returned to work at different ages

Factor	Age						F	P
	Age 21-35		Age 36-50		Age 51-67			
	Rating ($\bar{x}\pm s$)	≥ 2 points [Number (%)]	Rating ($\bar{x}\pm s$)	≥ 2 points [Number (%)]	Rating ($\bar{x}\pm s$)	≥ 2 points [Number (%)]		
Somatization	1.32±0.37	24(13.48)	1.36±0.40	35(23.49)	1.38±0.41	43(24.86)	1.058	0.348
Compulsive	1.43±0.49	49(27.53)	1.42±0.48	43(28.86)	1.33±0.43	40(23.12)	2.381	0.094
Symptoms Interpersonal	1.22±0.39	21(11.80)	1.25±0.41	23(15.44)	1.31±0.39	30(17.34)	2.334	0.098
Sensitivity Depression	1.28±0.37	28(15.73)	1.27±0.42	26(17.45)	1.26±0.41	26(15.03)	0.11	0.896
Anxiety	1.91±0.49	156(87.64)	1.68±0.13	82(55.03)	1.49±0.11	63(36.42)	8.978	<0.001
Hostile	0.49±0.11	0(0.00)	0.50±0.12	0(0.00)	0.36±0.18	0(0.00)	5.907	<0.001
Terror	1.80±0.61	142(79.78)	1.76±0.32	108(72.48)	1.74±0.33	75(43.35)	0.815	0.443
Paranoia	0.69±0.07	4(2.25)	0.81±0.11	5(3.36)	0.90±0.01	8(4.62)	6.022	<0.001
Psychogenic	0.25±0.05	0(0.00)	0.31±0.02	0(0.00)	0.13±0.08	0(0.00)	4.616	<0.001
Sleep and Diet	0.69±0.10	5(2.81)	0.74±0.06	5(3.36)	0.80±0.05	7(4.05)	9.699	<0.001

Table 3. Distribution of SCL-90 scores for each factor and the number of people with ≥ 2 scores among those who returned to work with different education levels

Factor	Academic qualifications				t	P
	High School and below		High School and above			
	Rating ($\bar{x}\pm s$)	≥ 2 points [Number (%)]	Rating ($\bar{x}\pm s$)	≥ 2 points [Number (%)]		
Somatization	1.34±0.39	64(20.51)	1.38±0.41	38(20.21)	-1.09	0.438
Compulsive symptoms	1.37±0.47	63(20.19)	1.52±0.40	69(36.70)	-2.651	0.016
Interpersonal sensitivity	1.23±0.40	46(14.74)	1.37±0.33	28(14.89)	-3.236	0.004
Depression	1.24±0.39	35(11.22)	1.33±0.36	45(23.94)	-2.572	0.228
Anxiety	1.72±0.34	196(62.82)	1.86±0.54	105(55.85)	-3.557	<0.001
Hostile	0.52±0.10	0(0.00)	0.34±0.16	0(0.00)	8.878	<0.001
Terror	1.93±0.48	212(67.95)	1.85±0.44	113(60.11)	1.862	0.191
Paranoia	0.77±0.15	10(3.21)	0.87±0.05	7(3.72)	-10.82	<0.001
Psychogenic	0.26±0.07	0(0.00)	0.14±0.09	0(0.00)	15.651	<0.001
Sleep and Diet	0.68±0.09	10(3.21)	0.75±0.10	7(3.72)	-2.076	0.102

4.2 Analysis of the causes of the psychological reactions of the resumed workers in the mall

4.2.1 The crowded nature of the mall

Analysis of existing cases suggests that patients with novel coronavirus pneumonia infect others mainly through droplet transmission and contact transmission routes. In addition, a large number of latent and asymptomatic infected individuals are hidden in the population and become potential sources of infection, leading to aggregated family morbidity and community transmission [1]. Currently, although the number of domestic infections of novel coronavirus pneumonia is under control, imported cases are not negligible due to the increase in the number of foreign infections, and for those who return to work in shopping malls, they are exposed to a large number of different people every day and inevitably worry about being infected themselves and whether their family members and friends are infected, causing a certain psychological burden.

4.2.2 Information dissemination by news media

With the continuous development of the network era, the way people receive information has formed a many-to-many net-like communication structure, and the acquired information content has been transformed into diversified and three-dimensional information [9], while the speed of dissemination is extremely fast. The resumed workers receive a lot of epidemic information from microblogs, WeChat, TV and other platforms every day, especially the voice and video information disseminated by unofficial media, which is difficult to distinguish the authenticity, and if they pay too much attention to the epidemic and browse the epidemic news without limitation, it will only increase the anxiety, tension and fear, which is not conducive to mental health [10].

4.3 Recommendations for psychological intervention for people returning to work in shopping malls

4.3.1 Active government control

The government has authority and credibility, and the psychology of resumed workers needs the government to carry out a series of emotional guidance, information guidance and behavioral guidance [7]. When faced with public emergencies, the government should improve the emergency management system, effectively take strong response measures, and fully mobilize all parties to participate in emergency management, so that emergency management of public emergencies becomes a common cause for society and individuals [11]. Meanwhile, the government should communicate with resumed workers through various media, filter false and inaccurate information, and release official authoritative information in a timely and accurate manner to make RTWs fully trust the government and avoid the spread of panic, so as to reduce the psychological load of resumed workers.

4.3.2 Self-regulation and protection for people returning to work

Zhang Xinwei et al. [12] showed that when emotional, psychological and physical reactions occur after an unexpected public event, the main way people cope is individual active self-regulation, in which taking a positive approach to regulation can effectively cope with the adverse effects caused by the unexpected public event. Therefore, returning workers should pay limited attention to the news of the epidemic and simply browse the official and authoritative media every day, while maintaining a regular life and learning to release their negative emotions. At the same time, the most important thing for people returning to work in shopping malls is to take protective measures, wear a mask at all times, and keep their bodies and minds in good condition.

4.3.3 Strengthen mental health education

The following psychological education measures can be taken for the workers returning to work in shopping malls: (1) the radio in shopping malls can intermittently promote mental health knowledge and inform the workers returning to work of ways to deal with adverse psychological conditions; (2) through the network platform, the establishment of shopping malls as a unit of the WeChat group, the management of shopping malls send mental health guidance information every day, and to calm the workers returning to work; (3) medical institutions at all levels can open online and telephone psychological counseling, (4) to medical institutions at all levels can open online and telephone psychological counseling to provide professional psychological counseling for those who return to work. The epidemic has not faded away and the resumption of work and production cannot be stopped, but it is also an important task to provide mental health education to the resumed workers, to prevent psychological disorders and to arouse the attention of the resumed workers and the society to the psychological reaction.

5. Declaration

All authors of this article declare they have no conflicts of interest.

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