

A Survey on Pharmacists' Job Burnout and Satisfaction during the COVID-19 Era

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Abstract

Background: The COVID-19 outbreak negatively impacted pharmacists who provided basic medical services by inducing anxiety and depression, thus, leading to medical errors. **Objective:** This study aimed to investigate the job burnout and satisfaction levels among hospital pharmacists during the period when China downgraded COVID-19 from a Category A disease to a Category B disease. **Method:** We selected pharmacists from several medical institutions in Yunnan Province as the subjects by using the general information questionnaire survey, the Maslach Burnout Inventory-Human Services Survey (MBI-HSS), and the Work Environment Scale-10 (WES-10). **Results:** After analyzing 461 questionnaires, the results showed that the age and marital status of the pharmacists displayed significant effects on their emotional exhaustion and sense of achievement, with younger pharmacists getting higher and lower scores for their tests on emotional exhaustion and sense of achievement, respectively ($p < 0.01$). Those who were single and widowers also achieved higher and lower scores on the tests for emotional exhaustion and sense of achievement, respectively ($p < 0.01$). **Conclusion:** Hence, it was concluded that the job burnout of pharmacists was at a low level during the period when China downgraded COVID-19 as a Category B disease from Category A.

Keywords

Job Burnout, COVID-19, Pharmacists, Job Satisfaction, Questionnaire Investigation

1. Introduction

Pharmacy services are irreplaceable and an important part of the healthcare system. However, the COVID-19 outbreak negatively impacted pharmacists who

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provided basic medical services by inducing anxiety and depression which not only adversely affected their physical health but also impaired the efficiency and quality of their work, thus, leading to medical errors [1]. This happened when China downgraded COVID-19 from a Category A disease to a Category B disease [2]; however, this led to an increase in the number of hospital patients and the amount of clinical drug usage, enhancing the pharmacists' workload while suffering from the virus. Since this undue pressure on them cannot be ignored, another study [3] showed that more than half of the pharmacists were affected by job burnout during the COVID-19 pandemic. Currently, several studies are available on clinicians and nurses suffering from job burnout in China [4] [5] [6], but very few studies have been conducted on hospital pharmacists. In this research, a statistical analysis was carried out to investigate the burnout status of 461 pharmacists working in hospitals in Yunnan Province. The study also examined the factors influencing burnout among these hospital pharmacists. Additionally, the levels of burnout and job satisfaction were assessed during the transition of COVID-19 from a "Class A-management Class B infectious disease" to a "Class B-management Class B infectious disease". The main objective was to establish a foundation for implementing targeted psychological prevention and intervention measures in the future. This would help promote the physical and mental well-being of hospital pharmacists and enhance the quality of pharmaceutical services in hospitals.

2. Materials and Methods

2.1. Research Subjects

The pharmacists from several medical institutions in Yunnan Province, including several tertiary hospitals in cities, hospitals in counties, and health centers in towns, were selected as subjects. The study was reviewed and approved by the Ethics Committee of People's Hospital of Yuxi City (ethical code: 2023 kmykdx6f 34). All participants gave their informed consent to participate.

For this research, QR codes containing a questionnaire were distributed to various medical institutions, including provincial-level tertiary Grade A, tertiary Grade B, secondary Grade A, secondary Grade B, and primary healthcare facilities. Medical and nursing staff from these institutions had the option to voluntarily take part in the survey. This approach ensured that all levels of medical facilities were included; thus, guaranteeing the representation of the samples.

2.2. Methods

On March 23, 2023, the study questionnaires were distributed to the WeChat groups of pharmacy departments of several medical institutions in Yunnan Province through an online platform "Questionnaire Star". The questionnaire included three components: demographic characteristics, burnout level, and job satisfaction of the respondents. The respondents filled out the questionnaire voluntarily and were allowed to reply only once; the incomplete questionnaires were rejected. The deadline for the replies was March 26, 2023, and SPSS 25.0

and AMOS 21.0 software were used to analyze the results.

2.2.1. Basic Respondents' Characteristics

The questionnaires obtained information about the respondents' demographic characteristics, including their age, gender, marital status, job title, family responsibilities (e.g., children, the elderly, the immunocompromised, and family members with chronic diseases), and education levels.

2.2.2. Job Burnout

The questionnaire adopts the revised Mahalanobi Job Burnout Scale - Service Industry Version (MBI-HSS) by Zhang Shuyue [7], which includes three dimensions: emotional exhaustion, depersonalization, and the sense of achievement [8]. A 7-point Likert scale measured the levels of the three domains. The responses from 1 to 7 represented "never", "seldom", "on some occasions", "on some more occasions", "most times", "almost every day", and "every day". The higher the scores for emotional exhaustion and depersonalization, the more intense burnout the respondents were suffering from, whereas the higher score for the sense of achievement correlated with a lower level of job burnout.

2.2.3. Job Satisfaction

We used a 10-item Work Environment Scale (WES-10) developed by Rossberg *et al.* [9]. to measure the respondents' job satisfaction along with the 5-point Likert scale to analyze the results. Responses ranged from a score of 1 = "not at all" to a score of 5 = "to a great extent". After reverse scoring of 3 items in the scale, their responses were measured in descending order. The higher the score, the higher the respondents' job satisfaction.

2.3. Statistical Analysis

We analyzed the final data using the SPSS 25.0 software (IBM, Armonk, NY, USA), while Cronbach's α coefficient was used to assess the internal consistency. The structural effectiveness of MBI-HSS is tested by confirmatory factor analysis. GFI, AGFI, RMR, RMSEA, CFI, NFI, TLI, PNFI and PGFI are used as the test indicators of fitness. Frequency and proportions (N, %) were used for calculating data outcomes, while non-normal data distribution was assessed by a one-sample Wilcoxon signed-rank test and described through median and quartiles (M, P25, and P75). We used independent samples t-test and ANOVA to assess the differences in respondents' scores who had different demographic and sociological characteristics. Pearson's correlation coefficient was used to analyze the correlation between individual demographic variables and scale dimensions. The p-value < 0.05 indicated statistically significant differences.

3. Results

3.1. Scale Reliability Analysis

After the reliability analysis, the results showed that Cronbach's α values for the

MBI-HSS scale, emotional exhaustion, depersonalization, and sense of achievement were 0.707, 0.908, 0.750, and 0.837, respectively, indicated that the reliability of the questionnaire's internal consistency and the measurement indexes was acceptable. The Cronbach's α of the WES-10 scale was 0.345, indicating that the reliability of the questionnaire's internal consistency was unacceptable, and the measurement indexes were unreliable, No more analysis of its validity.

3.2. Validity Analysis of MBI-HSS Scale

KMO and Bartlett's spherical test were used to determine the appropriateness of factor analysis. Results KMO = 0.915 (>0.60), Bartlett's significance $p < 0.001$, indicating that it is completely suitable for further confirmatory factor analysis.

The results of confirmatory factor analysis show that the two-factor model is consistent with the design dimension. The second-order confirmatory factor analysis found that the fitting of the model was not good, indicating that there might be potential interactions between some MBI-HSS projects. Therefore, the model was modified. The fitting of the modified two-factor model was better than that of the uncorrected two-factor model, and the fitting of the model was good, indicating that the scale had good validity, see **Table 1** and **Figure 1**.

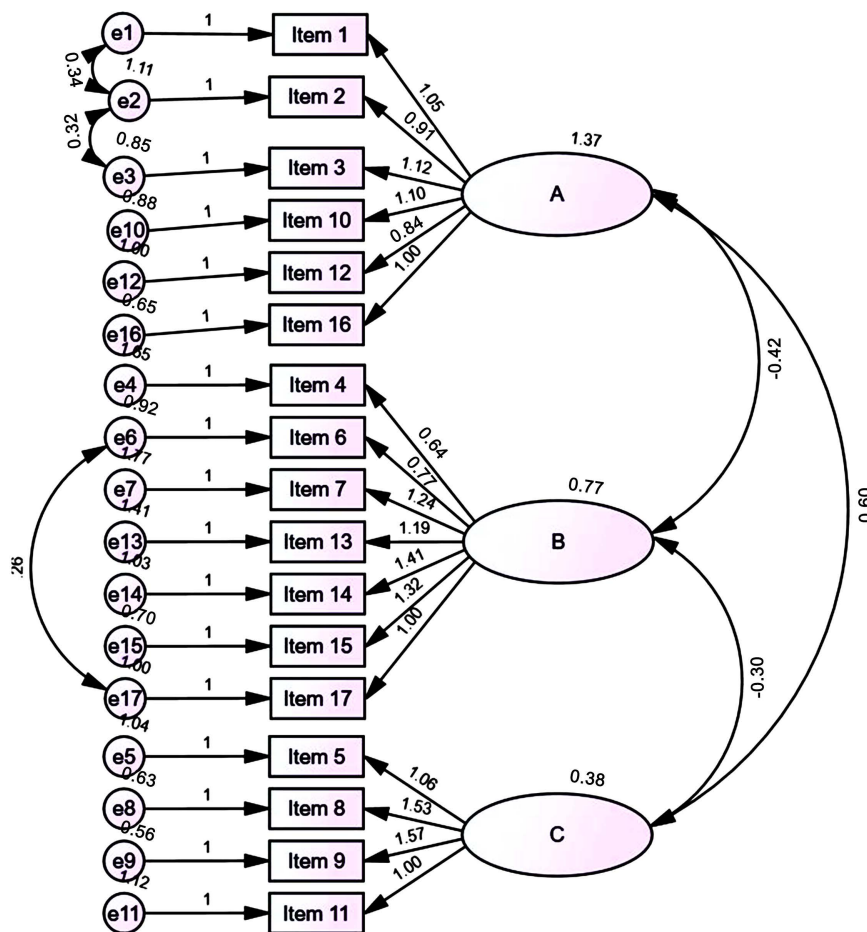


Figure 1. Structural equation model of MBI-HSS.

Table 1. Fitting degree of structural equation model of the MBI-HSS.

	GFI	AGFI	RMR	RMSEA	CFI	NFI	TLI	PNFI	PGFI
Uncorrected two-factor model	0.895	0.83	0.17	0.088	0.873	0.87	0.877	0.742	0.763
Corrected two-factor model	0.897	0.861	0.161	0.077	0.922	0.896	0.906	0.745	0.662
Threshold	>0.85	>0.85	<0.05	<0.08	>0.85	>0.85	>0.85	>0.50	>0.50

3.3. Respondents' Variance Characteristics

A total of 461 questionnaires were collected, and the respondents' variance characteristics are shown in **Table 1**. Among them, 96 (20.8%) and 365 (79.2%) were males and females, respectively, while 344 respondents had suffered from COVID-19, accounting for 74.62% of the study data. There were 329 respondents (71.4%) having a bachelor's degree; the percentage of married people was 74.2%.

The demographic variables of the respondents' age, job title, and family responsibilities revealed that young and middle-aged pharmacists, as well as pharmacists having a bachelor's degree, those with junior or middle job titles, and having an aged family member or a family member with a chronic disease were in the majority, as depicted in **Table 2**.

3.4. Job Burnout and Satisfaction Analysis

3.4.1. Current Status of Job Burnout and Satisfaction among Pharmacists

Since our study data were not normally distributed, the one-sample Wilcoxon signed-rank test was used. The MBI-HSS scale was a 7-point self-assessment scale, with a median score of 4. A 5-point self-assessment scale was used in the WES-10 scale, with a median score of 3. Our results reported that the median scores for emotional exhaustion and depersonalization were <4 ($p < 0.01$), while the median score for the sense of achievement was >4 ($p < 0.01$). However, the overall median score for job burnout was <4 ($p < 0.01$), indicating that the overall job burnout level was low. Moreover, the hospital pharmacists' job satisfaction score was >the median score of 3 ($p < 0.01$), indicating that the overall job satisfaction score was at a higher level, as shown in **Table 3**.

3.4.2. Correlation of the Demographic Variables, Job Satisfaction, and Burnout Characteristics

Respondents' age and marital status were significantly correlated with depersonalization and the sense of achievement ($p < 0.01$); the job title was also significantly correlated with emotional exhaustion ($p < 0.05$) and overall job burnout ($p < 0.01$), as shown in **Table 4**.

However, job satisfaction did not show any significant correlation with overall job burnout ($p > 0.05$), while it was significantly correlated with emotional exhaustion, depersonalization, and the sense of achievement ($p < 0.01$), as seen in **Table 4**.

Table 2. Respondents' demographic characteristics.

Item	Classification	Number of people	Percentage (%)
Job title	Chief pharmacist	5	1.1
	Deputy chief pharmacist	41	8.9
	Pharmacist in charge	130	28.2
	Pharmacist	192	41.6
	Assistant pharmacist	58	12.6
Gender	Female	96	20.8
	Male	365	79.2
Have you ever suffered from a COVID-19 infection?	Yes	344	74.62
	No	117	25.38
Age < 30 years	<30 years	139	30.2
	30 - 35 years	122	26.5
	36 - 40 years	72	15.6
	41 - 45 years	60	13.0
	46 - 50 years	42	9.1
	51 - 55 years	19	4.1
	>55 years	7	1.5
Highest academic qualification	Secondary education	6	1.3
	College degree	100	21.7
	Bachelor's degree	329	71.4
	Master's degree	26	5.6
Marital status	Single	104	22.6
	Married	342	74.2
	Divorced/widowed	15	3.3
Respondents' social responsibilities	Children < 5 years	112	24.3
	Children aged 5 - 12 years	96	20.8
	Children aged 13 - 18 years	41	8.9
	Teenagers > 18 years	154	33.4
	Those who did not raise children	54	11.7
	Aged people	194	42.1
	Immunocompromised people	86	18.7
	Having a family member with a chronic disease	174	37.7

Table 3. The survey results regarding job burnout and satisfaction.

Items	Median	Z	p-value
Emotional exhaustion	2.85 (2.14, 3.71)	-13.812	p < 0.01
Depersonalization	1.66 (1.33 2.50)	-18.255	p < 0.01
Sense of achievement	4.57 (3.85, 5.14)	10.478	p < 0.01
Job satisfaction	3.10 (1.90, 3.90)	9.403	p < 0.01
Overall job burnout	3.41 (3.11, 3.82)	-14.832	p < 0.01

Note: p < 0.01 indicates statistical significance.

Table 4. Correlation between the demographic variables, job satisfaction, and job burnout characteristics.

Classification	Testing value	Emotional exhaustion	Depersonalization	Sense of achievement	Total job burnout score	Job satisfaction
Gender	Pearson's correlation	0.031	0.001	-0.078	-0.031	-0.083
	p	0.506	0.989	0.093	0.51	0.076
Age	Pearson's correlation	-0.036	-0.196**	0.243**	0.09	0.064
	p	0.441	0	0	0.054	0.17
Job title	Pearson's correlation	-0.095*	0.06	-0.087	-0.123**	-0.065
	p	0.042	0.201	0.062	0.008	0.166
Have you ever suffered from a COVID-19 infection?	Pearson's correlation	0.009	0.042	0.023	0.035	0.013
	p	0.849	0.367	0.625	0.448	0.779
Highest educational qualification	Pearson's correlation	0.048	-0.006	0.043	0.068	-0.016
	p	0.308	0.905	0.36	0.145	0.734
Marital status	Pearson's correlation	-0.06	-0.147**	0.184**	0.042	0.034
	p	0.2	0.002	0	0.365	0.471
Job satisfaction	Pearson's correlation	-0.170**	-0.246**	0.261**	-0.026	1
	p	0	0	0	0.580	/

Note: ** indicates a significant correlation at the 0.01 level (two-tailed), and * shows a significant correlation at the 0.05 level (two-tailed).

3.4.3. The Effect of the Demographic Characteristics on Pharmacists' Job Burnout and Satisfaction Scores

Our results showed that there was no correlation between COVID-19 infections and pharmacists' job burnout and satisfaction ($p > 0.05$). However, pharmacists' age and marital status had a significant effect on their emotional exhaustion and sense of achievement; the younger they were, the higher score they achieved ($p < 0.01$). Single and widowed people achieved higher emotional exhaustion scores ($p < 0.01$) and lower sense of achievement scores ($p < 0.01$). Those who had children aged 3 - 18 years achieved the highest scores for the sense of achievement ($p < 0.05$). Those with family members ≥ 18 years of age received the low-

est total job burnout scores ($p < 0.05$). Furthermore, those who did not raise children achieved the highest depersonalization scores ($p < 0.05$). Respondents with an old family member received the highest sense of achievement ($p < 0.05$) and total job burnout ($p < 0.05$) scores, respectively. Additionally, those with chronically ill family members displayed the highest total job burnout ($p < 0.01$) and emotional exhaustion ($p < 0.05$) scores, as shown in **Table 5**, respectively.

4. Discussion

In 1981, Maslach and Jackson developed MBI for quantifying job burnout, which was then widely used in countries like the United Kingdom, the United States, Australia, Spain, Brazil, and Saudi Arabia for its reliability [10]. The Chinese version of the MBI-HSS scale includes 17 items instead of 22 and is extensively used [7] [11]. An analysis of the revised version by Zhang S *et al.* indicated that its index showed good reliability and was consistent with our results [7]. The reliability test of this study shows that the scale has good internal consistency reliability, and the validity test shows that the scale has good validity. It is found that the internal consistency is good, which indicates that all detection indicators are reliable.

This survey was conducted during the period when the COVID-19 preventive and control measures were further implemented in China, along with the reclassification of COVID-19 as a Category B disease from Category A. Among the 461 pharmacists surveyed, 74.62% of them had suffered from COVID-19. Thus, it was reported that their infective status had no significant effect on their job burnout and satisfaction levels.

Our results showed that hospital pharmacists reported lower levels of job burnout, emotional exhaustion, and depersonalization and a higher level of sense of achievement. Zhang Y. *et al.* conducted the study before the downgrading of COVID-19 from a Category A to a Category B disease, while our study was carried out before this reclassification. However, our findings were similar to their results [12] in displaying the effects of COVID-19 on hospital pharmacists' job burnout scores. Jalili M. *et al.* [13] also suggested a higher level of job burnout among healthcare workers during the pandemic. However, their results differed from our findings because they included those healthcare workers who provided direct medical services to patients in medical institutions. However, hospital pharmacists, as their assistants, have relatively lower workloads and mental stress. Jones A.M. *et al.* [3] reported that the job burnout rate of pharmacists during the pandemic was >50%. Moreover, this fact was different from our findings because the survey was conducted between April 2020 and May 2020 in the initial stages of the pandemic, and, thus, they could not determine the real impact of COVID-19 on pharmacists' job burnout levels.

There are two main reasons for the differences between our study and previous reports. Firstly, during the COVID-19 pandemic, medical institutions took various measures to improve the well-being of medical workers. They established health management systems and organizations, which contributed to the

Table 5. The job burnout and satisfaction scores in pharmacists with different characteristics.

Demographic variables		Total job burnout score	Job satisfaction	Emotional exhaustion	Depersonalization	Sense of achievement
Job title	Chief pharmacist	3.45 ± 0.43	3.32 ± 0.22	2.86 ± 0.72	1.73 ± 0.64	4.77 ± 0.96
	Deputy chief pharmacist	3.54 ± 0.54	3.19 ± 0.30	3.13 ± 1.10	1.70 ± 0.71	4.73 ± 0.91
	Pharmacist in charge	3.56 ± 0.55	3.13 ± 0.31	3.15 ± 1.11	1.95 ± 0.89	4.66 ± 0.86
	Pharmacist	3.47 ± 0.57	3.12 ± 0.29	3.01 ± 1.24	2.07 ± 1.02	4.52 ± 1.115
	Assistant pharmacist	3.32 ± 0.66	3.07 ± 0.25	2.74 ± 1.27	1.95 ± 1.016	4.50 ± 1.15
	F	1.838	1.27	0.757	1.155	1.241
	p	0.104	0.28	0.289	0.331	0.581
Gender	Male	3.50 ± .68	3.18 ± 0.31	2.94 ± 1.37	1.98 ± 1.06	4.72 ± 1.16
	Female	3.46 ± .58	3.12 ± 0.29	3.03 ± 1.14	1.98 ± 0.92	4.52 ± 1.013
	t	0.659	1.773	-0.67	-0.013	1.685
	p	0.51	0.390	0.051	0.989	0.093
Have you ever suffered from a COVID-19 infection?	Yes	3.45 ± 0.58	3.13 ± 0.29	3.01 ± 1.18	1.95 ± 0.91	4.55 ± 1.04
	No	3.50 ± 0.64	3.13 ± 0.30	3.03 ± 1.22	2.04 ± 1.05	4.60 ± 1.05
	t	0.083	-2.80	-0.19	-0.903	-0.489
	p	-0.76	0.78	0.649	0.135	0.983
Age < 30 years	<30 years	3.43 ± 0.65	3.11 ± 0.29	3.11 ± 1.34	2.27 ± 1.15	4.19 ± 1.38
	30 - 35 years	3.43 ± 0.56	3.13 ± 0.29	2.96 ± 1.16	1.98 ± 0.84	4.25 ± 1.10
	36 - 40 years	3.52 ± 0.58	3.11 ± 0.32	3.16 ± 1.11	1.86 ± 0.90	4.53 ± 0.99
	41 - 45 years	3.54 ± 0.53	3.16 ± 0.24	2.96 ± 1.06	1.78 ± 0.67	4.60 ± 0.88
	46 - 50 years	3.53 ± 0.54	3.17 ± 0.27	2.89 ± 1.11	1.68 ± 0.79	4.88 ± 0.84
	51 - 55 years	3.47 ± 0.62	3.08 ± 0.27	2.81 ± 1.54	1.68 ± 0.99	4.96 ± 1.06
	>55 years	3.57 ± 0.23	3.42 ± 0.27	2.78 ± 0.58	1.72 ± 0.64	5.16 ± 0.43
	F	0.9	1.27	0.604	3.188	3.25
	p	0.507	0.27	0.753	0.003	0
Highest academic qualification	Secondary education	3.34 ± 0.53	3.15 ± 0.216	2.69 ± 0.67	1.77 ± 0.62	4.66 ± 0.85
	College degree	3.41 ± 0.62	3.11 ± 0.27	2.93 ± 1.18	2.02 ± 1.007	4.48 ± 1.10
	Bachelor's degree	3.47 ± 0.60	3.14 ± 0.28	3.03 ± 1.20	1.96 ± 0.95	4.57 ± 1.03
	Master's degree	3.58 ± 0.54	3.01 ± 0.42	3.11 ± 1.14	1.98 ± 0.87	4.74 ± 1.06
	F	0.736	1.72	0.375	0.156	0.461
	p	0.531	0.16	0.771	0.926	0.71
Marital status	Single	3.42 ± 0.72	3.12 ± 0.31	3.17 ± 1.36	2.29 ± 1.12	4.15 ± 1.15
	Married	3.47 ± 0.55	3.13 ± 0.29	2.95 ± 1.14	1.87 ± 0.85	4.68 ± 0.97
	Divorced/widowed	3.52 ± 0.66	3.22 ± 0.21	3.08 ± 1.05	2.17 ± 1.26	4.53 ± 1.12
	F	0.414	0.71	1.275	8.651	10.699
	p	0.661	0.49	0.28	0	0

Continued

Respondents' social responsibilities	Children < 5 years	3.45 ± 0.53	3.09 ± 0.32	2.90 ± 1.20	1.93 ± 0.91	4.66 ± 1.01
	F	0.035	2.28	1.129	0.427	1.451
	p	0.852	0.13	0.289	0.514	0.229
	Children aged 5 - 12 years	3.51 ± 0.62	3.13 ± 0.29	3.07 ± 1.11	1.85 ± 0.84	4.67 ± 0.87
	F	0.883	0	0.373	1.9	1.324
	p	0.348	0.98	0.542	0.169	0.25
	Children aged 13 - 18 years	3.51 ± 0.48	3.17 ± 0.216	2.81 ± 1.048	1.82 ± 0.74	4.93 ± 1.06
	F	0.224	1.11	1.211	1.202	5.532
	p	0.636	0.92	0.272	0.274	0.019
	Teenagers > 18	3.37 ± 0.63	3.16 ± 0.26	2.88 ± 1.02	1.98 ± 0.94	4.47 ± 1.06
	F	5.113	2.29	2.592	0.003	1.766
	p	0.024	1.13	0.108	0.954	0.185
	Those who did not raise children	3.54 ± 0.57	3.11 ± 0.31	3.23 ± 1.47	2.22 ± 1.06	4.42 ± 1.21
	F	1.044	0.20	2.164	4.08	1.071
	p	0.307	0.65	0.142	0.044	0.301
	Aged people	3.55 ± 0.56	3.12 ± 0.29	3.11 ± 1.23	1.94 ± 0.92	4.67 ± 1.01
	F	6.598	0.22	2.573	0.334	3.856
	p	0.011	0.63	0.109	0.564	0.05
	Immunocompromised people	3.50 ± 0.59	3.11 ± 0.32	3.10 ± 1.23	1.82 ± 0.75	4.62 ± 1.05
	F	0.389	0.18	0.648	2.672	0.346
p	0.533	0.67	0.421	0.103	0.557	
A family member with a chronic disease	3.57 ± 0.55	3.13 ± 0.28	3.17 ± 1.24	2.05 ± 0.96	4.61 ± 0.99	
F	8.287	0.19	5.305	1.727	0.731	
p	0.004	0.66	0.022	0.19	0.393	

Note: $p < 0.05$ indicates statistical significance.

the happiness of medical workers, the smooth operation of public hospitals, and a reduction in pharmacist burnout. Secondly, the pandemic led to job losses for many, making job-seeking more difficult. However, the demand for medical and nursing staff increased, providing hospital pharmacists with stable work and income. Consequently, pharmacists actively found happiness in their profession during the pandemic, which helped alleviate the challenges of professional burnout to some extent.

Pharmacists' age and marital status displayed significant effects on their emotional exhaustion and sense of achievement; the younger they were, the higher

level of their job burnout was. Our findings are similar to the results of Zhang Y. *et al.* [12]. It was probably because, when stressful events like pandemics happen [14], young hospital pharmacists, due to less work experience and lower income, bear higher stress levels, while the older pharmacists, due to their seniority and higher income as well as social status, show enhanced psychological tolerance.

Various measures were taken by the relevant departments of medical institutions to address the professional burnout and well-being of medical and nursing staff during the COVID-19 pandemic, showing positive effects. In the future, to better respond to such situations, medical institutions can further promote the physical and mental health of medical workers by implementing several measures. These include establishing a health management organization system for medical workers, improving the health management system, implementing an Employee Assistance Program (EAP), creating a platform for cultural and sports activities, maintaining health management records for medical workers, and mobilizing functional departments to integrate hospital resources for comprehensive health management of medical workers [15].

Although job burnout among hospital pharmacists was at a lower level during the pandemic, other factors affecting their psychological health cannot be ignored. Our study had a few limitations. Firstly, we merely investigated some medical institutions in Yunnan Province, and secondly, we should have increased the coverage to improve the accuracy of the results. Lastly, we used the WES-10 scale to detect the job satisfaction levels of the pharmacists, but this scale's reliability analysis showed that the internal consistency reliability was insufficient; thus, fabricating less reliable data. Therefore, this scale's utilization resulted in three unreliable test results: 1) There was no significant correlation between job satisfaction and burnout levels ($p > 0.05$); 2) There was a significant correlation between emotional exhaustion, depersonalization, and the sense of achievement levels ($p < 0.01$); and 3) The degree of job satisfaction of hospital pharmacists was higher than the median score of 3 ($p < 0.01$), so a more representative scale should be used in further studies to investigate the job satisfaction levels of pharmacists in medical institutions.

5. Consistent

In summary, this study indicates that hospital pharmacists experienced relatively low levels of professional burnout during the COVID-19 pandemic. The survey revealed that when COVID-19 shifted from a "Class A-management Class B infectious disease" to a "Class B-management Class B infectious disease", the pharmacists reported lower levels of burnout. However, factors like age, marital status, and family responsibilities still influenced their sense of burnout. The study also suggests that the pharmacists' ability to regulate positive emotions and cope with negative emotions contributed to their subjective sense of happiness, helping them counteract the challenges of professional burnout [16]. Additionally, it is recommended that individuals enhance their self-efficacy and adopt positive coping strategies during stressful events [17].

Data Availability

All data generated and analyzed during this study are included in this article and supplementary file.

Author Contribution

Conceptualization, Qirui Tai; methodology, Qirui Tai; software, Mili Shi; investigation, Qirui Tai; data curation, Mili Shi; writing—original draft preparation: Qirui Tai; writing—review and editing, Qiuyan Song, Yijie Shi and Huan Hu. All authors read and approved the final manuscript.

Conflicts of Interest

The authors declare there is no conflict of interest.

Ethics Approval and Consent to Participate

The study was reviewed and approved by the Ethics Committee of People's Hospital of Yuxi City (ethical code: 2023 kmykdx6f 34). All participants gave their informed consent to participate.

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