

## CAUSES OF ATTACKS ON PSYCHIATRIC MEDICAL CARE PERSONNEL WITHIN ORGANIZATIONS AND JOB SATISFACTION

YING XIA<sup>1,#</sup>, ZIYUN YANG<sup>2,#</sup>, HANBIN JI<sup>3</sup>, LIJIE FANG<sup>4</sup>, QIUMING JI<sup>5</sup>, DAN LIAO<sup>6,\*</sup>

<sup>1</sup>Department of Drug Dependence Clinic, Wuhan Wudong Hospital, Wuhan, 430084, Hubei Province, China - <sup>2</sup>Education and Counseling Center for Psychological Health, Zhongnan University of Economics and Law, Wuhan, 430073, Hubei Province, China - <sup>3</sup>Department of Psychiatric, Wuhan Wudong Hospital, Wuhan, 430084, Hubei Province, China - <sup>4</sup>Department of Human Resource Management, Wuhan Wudong Hospital, Wuhan, 430084, Hubei Province, China - <sup>5</sup>Department of Science and Education Division, Wuhan Wudong Hospital, Wuhan, 430084, Hubei Province, China - <sup>6</sup>Department of Psychiatric Intensive Care Unit 1, Wuhan Wudong Hospital, Wuhan, 430084, Hubei Province, China

*#These authors contributed equally to this work as co-first author*

**ABSTRACT**

To investigate the possible causes of workplace attacks on psychiatric medical care personnel within organizations and their job satisfaction, a questionnaire was adopted as the research method for the exploration of current attacks on in-service psychiatric and non-psychiatric medical care personnel at work in Wuhan and their job satisfaction. Besides, the relationship between demographic characteristics and job satisfaction and all dimensions of workplace aggression was analyzed. It was demonstrated that the incidence of attacks on psychiatric health care personnel within organizations reached 85.6%, which was apparently higher than that on non-psychiatric health care personnel within organizations (49.8%) ( $P < 0.05$ ). Length of service, education background, the number of monthly night shift schedules, whether to report after an attack, and whether they ever received relevant training were the independent risk factors of the attacks on psychiatric medical care personnel within organizations. In terms of different dimensions of job satisfaction among psychiatric medical care personnel, the average scores for remuneration and benefits, career development and stability, organization integration, interpersonal relationship, leadership and management, job dimensions, and total scale were  $1.72 \pm 0.31$ ,  $2.01 \pm 0.42$ ,  $2.11 \pm 0.51$ ,  $2.05 \pm 0.31$ ,  $1.69 \pm 0.38$ ,  $1.07 \pm 0.41$ , and  $1.64 \pm 0.52$  points, respectively, which were obviously lower than those for psychiatric medical care personnel. To sum up, the incidence of the attacks on psychiatric medical care personnel within organizations obviously increased, while job satisfaction significantly reduced.

**Keywords:** Psychiatry department, medical care personnel, attacks within organizations, job satisfaction, cause analysis.

DOI: 10.19193/0393-6384\_2023\_1\_32

Received March 15, 2022; Accepted October 20, 2022

**Introduction**

Psychiatric disorders are a group of nervous system diseases characterized by behavioral disorders and psychological disorders<sup>(1)</sup>. Psychiatric medical care personnel include psychiatrists, psychiatric nurses, clinical psychologists, occupational therapists, and social workers with expertise in psychiatry<sup>(2)</sup>. Most psychiatric patients suffer from dysmnnesia, disturbance of intelligence, affective disorder, volitional behavior disturbance, consciousness disorder, and self-control disorder. The

main symptoms include anxiety, fear, neurasthenia, hysteria, obsessive-compulsive disorder, loss of concentration, and mania<sup>(3, 4)</sup>. Consequently, psychiatric medical care personnel are usually faced with great pressure and risks during the treatment for psychiatric patients. In particular, patients become more aggressive at the onset of illness. In most case, it is very likely that medical care personnel are violently attacked, which not only threatens the personal safety of psychiatric medical care personnel and patients themselves, but also have a great impact on hospital public security administration<sup>(5)</sup>.

Workplace aggression refers to the act of individuals intentionally inflicting physical or psychological harm on organization members, such as spreading rumors, verbal insults, and physical attacks. Physical health (including physical weakness, fatigue, and pain) and psychological health (including memory loss, fear, and autism) of the targets (injured party) are directly injured. In addition, personal and organizational performance of the injured party are indirectly impaired. Even worse, family harmony of the injured party is damaged<sup>(6)</sup>.

According to relevant studies, the probability of violent attacks at the workplace among medical care personnel significantly increases than that among practitioners of other occupations. Compared with medical care personnel in other departments, psychiatric medical care personnel are often more likely to be attacked<sup>(7)</sup>. It is confirmed that the particularity of psychiatric patients leads to the more significant increases in the total amount and frequency of violent attacks on psychiatric medical care personnel than those in other departments<sup>(8)</sup>. At present, the attacks on medical care personnel within organizations at workplace include workplace violence, workplace exclusion, indifference exclusion, psychological maltreatment, rumors, workplace bullying, and emotional control. The above overt or implicit aggressive behaviors all have significant impacts on the physical and psychological health of medical care personnel<sup>(9)</sup>.

Job satisfaction refers to the mental state that a person has positive feelings about work itself and its related aspects, including working environment, working state, working style, working pressure, challenges, and interpersonal relationship at workplace<sup>(10, 11)</sup>. At present, there are few investigations and studies on job satisfaction among psychiatric medical care personnel. There is a research gap in the relevant study on psychiatric medical care personnel in Wuhan area. Hence, psychiatric medical care personnel in Wuhan area were selected as the research objects for the investigation into the influences of aggressive behaviors within and outside organizations on psychiatric staff, the degree of influences, and the influencing factors under the social and cultural backgrounds in China. Besides, the potential effects of aggressive behaviors on job satisfaction and organizational performance of psychiatric staff were researched to provide some reference values for workplace protection and job satisfaction improvement among the practitioners in the special medical industry.

## Materials and methods

### *Research objects*

A total of 526 psychiatric medical care personnel working in hospitals in Wuhan area between March 2021 and 2022 were selected as the research objects (recorded as the test group). Besides, 532 non-psychiatric doctors were divided into the control group.

All included medical care personnel were aged between 23 and 51 with the average of  $36.3 \pm 4.5$ . Their work experience ranged from 2 to 30 years. There were 324 males and 202 females. According to the types of work, psychiatric medical care personnel included 154 doctors, 187 nurses, 98 care workers, and 87 other workers. Among all non-psychiatric medical care personnel, there were 163 doctors, 191 nurses, 97 c workers, and 81 other workers. All procedures of the research had been approved by Wuhan Wudong Hospital Ethics Committee. All included research objects had signed informed consent forms.

### *Research methods*

In the research, the current attacks on psychiatric medical care personnel working in Wuhan city and their job satisfaction were investigated through a questionnaire. Simple random sampling and convenience sampling were combined to collect relevant data. Besides, the reliability of all questionnaires was analyzed. The collected data were processed with independent sample t test, chi-square test, correlation, and regression test for the understanding of the relationship between demographic statistical variables and workplace aggression and between attacks and job satisfaction.

### *Questionnaire*

The used questionnaire reports included general information questionnaire, workplace aggression questionnaire, and job satisfaction scale questionnaire. The general information questionnaire included gender, age, job position, position title, work experience, education level, and marital status. The used workplace aggression questionnaire included the following four dimensions.

A. The incidence of different forms of violent attacks at workplace in the previous year.

B. The description of the most impactful violent attack at workplace in the previous year.

C. The cognition and scheduling of violent attack at workplace.

D. The prevention and measures for violent attacks at workplace in hospitals<sup>(12)</sup>.

Dimension A was subdivided into physical attack, verbal violence, intimidation, and sexual harassment. Dimension B included a total of 10 items. There were 9 items in dimension C and 7 items in dimension D. All items of different dimensions in the workplace aggression questionnaire were scored by Likert 5-point rating method<sup>(13, 14)</sup>. 0 represented never, 1 indicated seldom, 2 suggested sometimes, 3 referred to often, and 4 meant very frequently.

Based on Minnesota satisfaction questionnaire (MSQ)<sup>(15)</sup>, the job satisfaction scale was improved. It included a total of 6 dimensions (A. remuneration and benefits. B. career development and stability. C. organization integration. D. interpersonal relationship. E. leadership and management. F. job itself). The contents of specific items of different dimensions in the job satisfaction scale were displayed in Table 1 below. All items of different dimensions in the job satisfaction scale were scored by Likert 5-point rating method. 1 represented very unsatisfied, 2 indicated unsatisfied, 3 meant uncertain, 4 referred to satisfied, and 5 suggested very satisfied. A higher score indicated higher job satisfaction.

**Questionnaire distribution and data summary**

An electronic questionnaire was adopted as the research method in the research. Before the distribution of electronic questionnaires, the respondents should be informed of the significance, purpose, and related precautions of the questionnaire investigation. During the questionnaire investigation, their privacy must be protected. Besides, relevant medical care personnel were required to fill in and submit questionnaire anonymously and truthfully.

The results of all questionnaire investigations were uniformly input into Epi-data3.1 software by 2 researchers with the double-blind method. Besides, the database of the investigation results of the causes of attacks on psychiatric and non-psychiatric medical care personnel within organizations in Wuhan area and job satisfaction was established. After data input, 1/4 of the questionnaires were randomly selected for data re-verification to ensure the accuracy of input data. In the questionnaire investigation, a total of 1,100 questionnaires were distributed and 1,058 were effectively recovered. The effective recovery rate reached 96.18%. Among all recovered questionnaires, there were 526 questionnaires on psychiatric medical care personnel with an effective

recovery rate of 95.64% and 532 questionnaires on non-psychiatric medical care personnel the effective recovery rate of 96.74%.

Dimensions	Contents of specific items
Remuneration and benefits	Wage
	Performance and bonus calculation and distribution
	Holiday subsidies, meal, accommodation, leave, and other welfare benefits
	The overall feeling of their own salary and benefits compared with friends of the same age at the same level of remuneration and benefits
	The ratio of input to output (efforts to gains)
Career development and stability	Degree of occupational stability
	Position promotion channel and mechanism provided by hospitals
	Position title assessment mechanism provided by hospitals
	Opportunities for academic training and advanced study provided by hospitals
	Comparison of position title assessment and position promotion mechanisms with other hospitals at the same level
Organization integration	General feeling about hospitals
	General feeling about current jobs
	Confidence in the future of hospitals
	Recognition of hospital management ideas and willing to take efforts for its goal
	Eagerness to work in the current hospitals all the time
Interpersonal relationship	Relationship with leaders
	Relationship with colleagues
	Family's attitude to your job
	Friends' understanding of your job
	Doctor-patient relationship in hospitals
Leadership and management	Cultivation methods adopted by leaders
	Leaders' leadership competence
	Hospital management system
	Hospital feedback on employees' comments and suggestions
	Working environment and conditions
Job itself	Interest in current jobs
	Satisfaction with workload
	Whether your own abilities could be shown at work
	Whether your professional ability could be improved at work
	Whether you had a sense of accomplishment at work

**Table 1:** Contents of specific items of different dimensions in the job satisfaction scale.

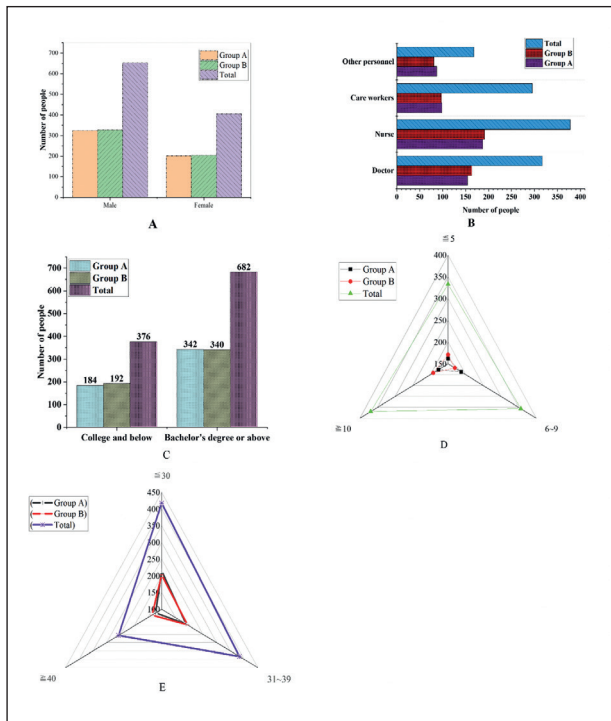
**Statistical methods**

SPSS19.0 statistical software was used for the processing of experimental data. Measurement data were denoted by mean±standard deviation ( $\bar{x} \pm s$ ). Means of all groups were compared by t test. Enumeration data were expressed as percentage (%) and analyzed with  $\chi^2$  test. P<0.05 indicated that the difference was statistically significant.

**Results**

**General demographic data on medical care personnel**

The comparison of half demographic data on the medical care personnel in the two groups is shown in Figure 1 below. It was found that there were significant differences in age distribution, gender ratio, occupational distribution, working year distribution, position title, and the number of monthly night shifts between psychiatric medical care personnel and non-psychiatric medical care personnel ( $P>0.05$ ).



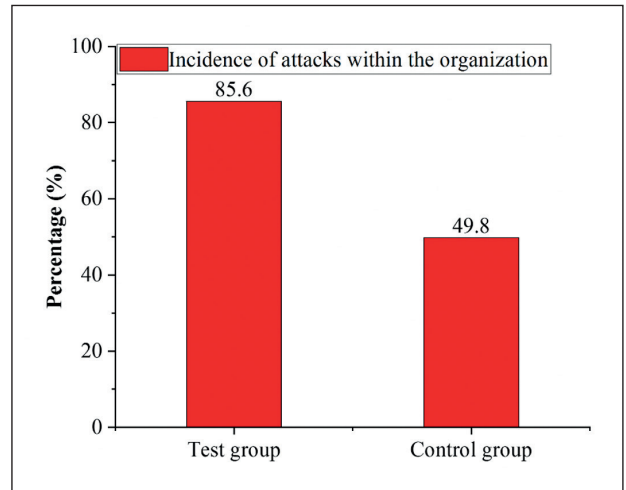
**Figure 1:** Comparison of half demographic data on the medical care personnel in the two groups.

(Note: A. Gender distribution. B. Occupational distribution. C. Education level distribution. D. Working year distribution. E. Age distribution).

**Comparison of questionnaire results of workplace attacks on the medical care personnel in the two groups**

The comparison of the incidence of the attacks on the medical care personnel in the two groups within organizations as illustrated in Figure 2 below. It was demonstrated that the incidence of attacks on psychiatric medical care personnel within organizations reached 85.6%, which was obviously higher than that on non-psychiatric medical care personnel (49.8%).

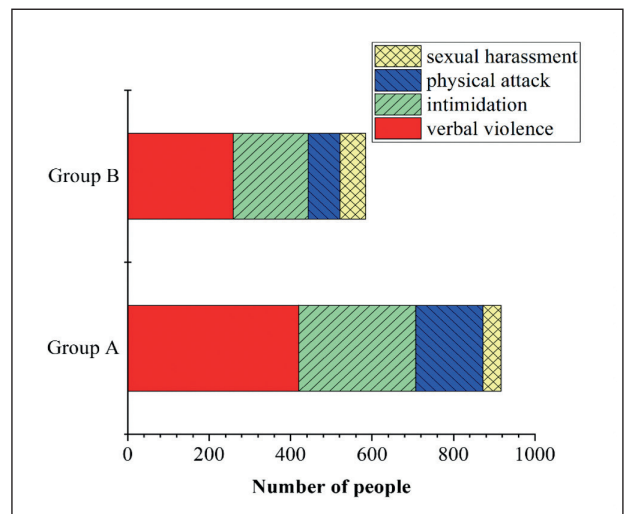
The difference was remarkable with statistical significance ( $P<0.05$ ).



**Figure 2:** Comparison of the incidence of attacks on the medical care personnel in the two groups within organizations.

(Note: \* indicated that there was a remarkable difference in the incidence of attacks on the medical care personnel within organizations between the two groups ( $P<0.05$ ), which suggested statistical significance).

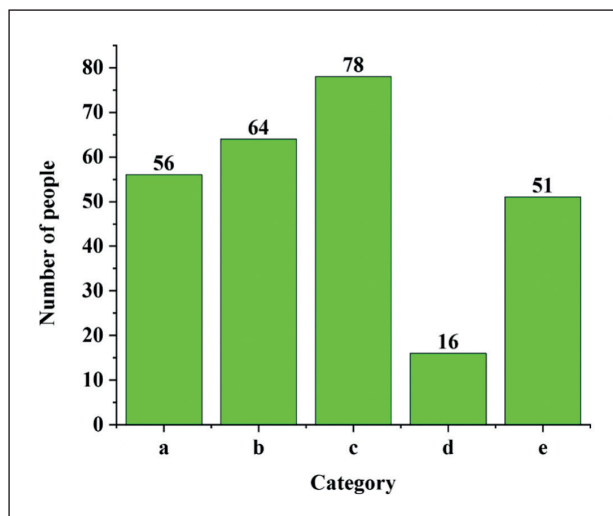
The distribution of the types of attacks on the medical care personnel in the two groups within organizations is presented in Figure 3 below. It was shown that 420 medical care personnel underwent workplace verbal violence, 287 underwent workplace intimidation, 165 experienced physical attack, and 45 were ever sexually harassed at workplace among 526 psychiatric medical care personnel. Among 532 non-psychiatric medical care personnel, 304 medical care personnel underwent workplace verbal violence, 216 underwent workplace intimidation, 101 experienced physical attack, and 24 were ever sexually harassed at the workplace.



**Figure 3:** The distribution of the types of attacks on the medical care personnel in the two groups within organizations.



The results of cause analysis of the attacks on psychiatric medical care personnel within organizations are shown in Figure 4 below. It was suggested that 56 medical care personnel were attacked due to lack of the understanding of patients' conditions, 64 were attacked due to weak awareness of self-defense, 78 were attacked due to lack of the skills of communicating with patients, 16 were attacked due to the failure to focus on priority patients, and 51 were attacked due to lack of foresight in medical care among all attacked psychiatric medical care personnel within organizations.



**Figure 4:** Results of cause analysis of the attacks on psychiatric medical care personnel within organizations. (Note: a, b, c, and d represented lack of the understanding of patients' conditions, weak awareness of self-defense, lack of the skills of communicating with patients, the failure to focus on priority patients, and lack of foresight in medical care, respectively).

#### **Results of one-factor analysis of the attacks on psychiatric medical care personnel within organizations**

The results of the one-factor analysis of the attacks on psychiatric medical care personnel within organizations are displayed in Table 2 below. It was found that the attacks on psychiatric medical care personnel within organizations were unrelated to age and gender ( $P > 0.05$ ).

In terms of working years, education level, and working environment, the incidence of the attacks on psychiatric medical care personnel with 5 working years and less with organizations was apparently higher than that on non-psychiatric medical care personnel within organizations ( $P < 0.05$ ). The incidence of the attacks on psychiatric medical care personnel with bachelor degree and below within organizations was obviously higher

than that on psychiatric medical care personnel with bachelor degree and above. The incidence of the attacks on psychiatric medical care personnel working in closed ward areas within organizations was significantly higher than that on those working in outpatient or emergency department. In addition, the incidence of the attacks on nurses, care workers, and other workers within organizations was higher than that on doctors from the perspectives of occupation, position title, and the number of night shifts ( $P < 0.05$ ). The incidence of the attacks on primary medical care personnel within organizations was apparently higher than that on intermediate and senior vice medical care personnel.

The incidence of the attacks on medical care personnel with over 5 night shifts every month was obviously higher than that on those with fewer than 5 night shifts every month. Besides, the incidence of the attacks on medical care personnel within organizations who received relevant training and reported positively after attack was significantly lower than that on those who didn't receive relevant training and report attack ( $P < 0.05$ ).

#### **Results of multi-factor analysis of the attacks on psychiatric medical care personnel within organizations**

The contrast indexes with statistical significance mentioned in section 3.3 were used as the independent variables. Whether the attacks within organizations took place was set as the dependent variables. After binary logistic regression analysis, Table 3 was generated, which showed the results of multi-factor analysis of the attacks on psychiatric medical care personnel within organizations. It was demonstrated that their working years, education level, the number of monthly night shift schedules, whether to report after attacks, and whether they ever received relevant training were the independent risk factors of the attacks on psychiatric medical care personnel within organizations.

#### **Reliability analysis of job satisfaction investigation scale among medical care personnel**

The results of the reliability analysis of job satisfaction scale among medical care personnel were shown in Figure 5 below. It was revealed that the overall reliability of the used job satisfaction investigation scale was 0.915. Besides, the scale reliability of the dimensions of remuneration and benefits, career development and stability, organization integration, interpersonal relationship,

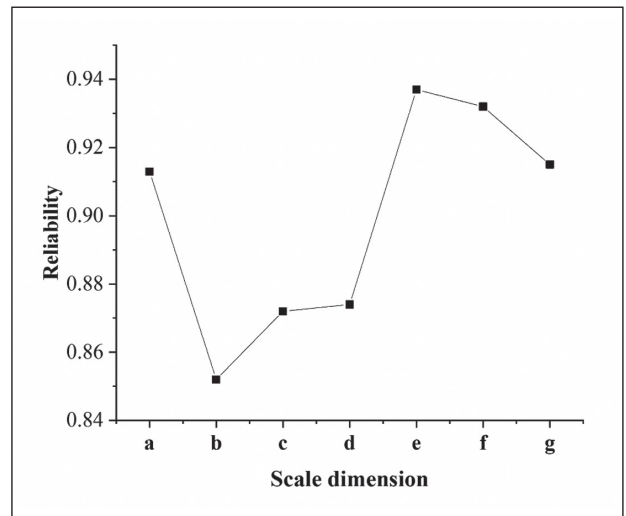
leadership and management, and job itself amounted to 0.913, 0.852, 0.872, 0.874, 0.937, and 0.932, respectively.

Parameters	Subgroups	The number of people attacked within organizations	Total number of people	P value
Gender	Male	218	324	0.132
	Female	186	202	
Age	≤40	354	404	0.387
	>40	97	122	
Working year	≤5	107	162	0.043
	>5	301	364	
Education level	Bachelor degree and below	136	184	0.024
	Bachelor degree and above	298	342	
Working scene	Outpatient or emergency department	186	215	0.013
	Open wards	157	198	
	Closed wards	85	115	
Occupation	Doctors	102	154	0.042
	Nurses	124	187	
	Care workers	58	98	
	Other personnel	62	87	
Position title	Primary	124	162	0.031
	Intermediate	148	187	
	Senior vice and above	101	177	
The number of monthly night shifts (days)	0	28	56	0.001
	1 to 5	65	98	
	>5	307	372	
Whether they ever received relevant training	Yes	207	295	0.032
	No	192	231	
Whether to report after attack	Yes	344	384	0.025
	No	114	142	

**Table 2:** One-factor analysis of the attacks on psychiatric medical care personnel within organizations.

Factors	Regression coefficient	Standard error	P value	Odds ratio (OR) value
Constant	3.653	0.801	<0.01	43.974
Working year	-0.795	0.253	<0.01	0.501
Education level	0.214	0.069	<0.01	1.189
Working in closed wards	1.021	0.342	<0.01	1.724
The number of monthly night shifts	0.382	0.091	<0.01	1.476
Whether to report after attacks	-0.785	0.284	<0.01	0.472
Whether they ever received relevant training	-0.692	0.308	<0.01	0.509

**Table 3:** Multi-factor analysis of the attacks on psychiatric medical care personnel within organizations.



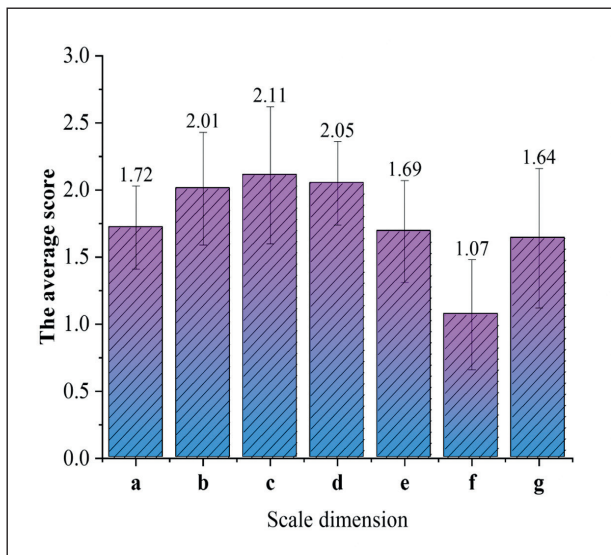
**Figure 5:** Results of reliability analysis of job satisfaction investigation scale among medical care personnel. (Note: a, b, c, d, e, f, and g represented remuneration and benefits, career development and stability, organization integration, interpersonal relationship, leadership and management, job itself, and total scale dimensions, respectively).

**Results of job satisfaction among psychiatric and non-psychiatric medical care personnel**

The results of the investigation into job satisfaction among medical care personnel were presented in Figure 6 below.

It was found that the average scores for remuneration and benefits, career development and stability, organization integration, interpersonal relationship, leadership and management, job itself, and total scale among all scores for job satisfaction among psychiatric medical care personnel were 1.72±0.31, 2.01±0.42, 2.11±0.51, 2.05±0.31, 1.69±0.38, 1.07±0.41, and 1.64±0.52 points, respectively. Among all scores for job satisfaction among non-psychiatric medical care personnel, the average scores for remuneration and benefits, career development and stability, organization integration, interpersonal relationship, leadership and management, job itself, and total scale amounted to 2.61±0.91, 2.79±0.82, 2.81±0.91, 0.85±0.91, 2.19±0.98, 2.48±0.99, and 2.59±0.82 points, respectively.

The comparison of the above scores for seven dimensions between psychiatric medical care personnel and non-psychiatric medical care personnel demonstrated that the average scores for all job satisfaction dimensions among psychiatric medical care personnel all decreased more significantly than those among non-psychiatric medical care personnel. The differences were remarkable with statistical significance (P<0.05).



**Figure 6:** Results of the investigation into job satisfaction among medical care personnel.

(Note: a, b, c, d, e, f, and g represented remuneration and benefits, career development and stability, organization integration, interpersonal relationship, leadership and management, job itself, and total scale dimensions, respectively).

## Discussion

Doctor-patient relationship refers to the objective interaction between doctors and patients and between social groups and individuals that are closely related to the interests of both sides in medical service<sup>(16)</sup>. “Doctor” refers to a group of medical personnel that includes doctors, nurses, drug inspectors, and administrative staff. “Patient” refers to patients, direct or indirect family relatives, guardians, and their working departments and units. In recent years, the studies on doctor-patient relationship issue and job satisfaction among hospital practitioners are widely emerging<sup>(17)</sup>. Due to the occupational particularity, medical workers are usually faced with various problems, including the complex disease of service objects, the large number of service populations and tasks, and high technical requirements at work. In the case of the non-cooperation of patients and their family relatives, organizational attacks often occur in hospitals, which is caused by cognitive and affective disorders among psychiatric patients<sup>(18)</sup>.

In the research, the causes of the attacks on psychiatric and non-psychiatric medical care personnel within organizations in Wuhan area and their job satisfaction were investigated. It was found that there were no remarkable differences in age distribution, gender ratio, occupational distribution, working year distribution, position title, and the

number of monthly night shifts between psychiatric medical care personnel and non-psychiatric medical care personnel ( $P > 0.05$ ). However, the investigation into the incidence of the attacks on medical care personnel within workplace organizations in Wuhan area demonstrated that the incidence of the attacks on psychiatric medical care personnel within organizations reached 85.6%, which was apparently higher than that on non-psychiatric medical care personnel within organizations (49.8%). The difference was notable with statistical significance ( $P < 0.05$ ). Besides, 420 medical care personnel ever underwent workplace verbal violence, 287 suffered from workplace intimidation, 165 experienced physical attack, and 45 were ever sexually harassed at workplace among 526 included psychiatric medical care personnel. Among 532 non-psychiatric medical care personnel, 304 medical care personnel ever underwent workplace verbal violence, 216 suffered from workplace intimidation, 101 experienced physical attack, and 24 were ever sexually harassed at the workplace. In general, the number of different types of organizational attacks on psychiatric medical care personnel at the workplace was much larger than that on non-psychiatric medical care personnel, which confirmed that psychiatric medical care personnel faced more severe working environment.

According to the analysis of the causes of the organizational attacks on psychiatric medical care personnel, 56 medical care personnel were attacked due to lack of the understanding of patients' conditions, 64 were attacked due to weak awareness of self-defense, 78 were attacked due to lack of the skills of communicating with patients, 16 were attacked due to the failure to focus on priority patients, and 51 were attacked due to lack of foresight in medical care among all attacked psychiatric medical care personnel within organizations. The above findings demonstrated that psychiatric medical care personnel were required to possess higher professional ability, fully understand patients' disease and all indexes, master good communication skills, and enhance the awareness and ability of self-defense<sup>(19, 20)</sup>. The one-factor and multi-factor analysis of possible influencing factors of the incidence of organizational attacks suggested that working year, education level, the number of monthly night shifts, whether to report after the attack, and whether they ever received relevant training were the independent risk factors of the attacks on psychiatric medical care personnel within organizations. Compared with those among non-psychiatric medical care personnel, the average

job satisfaction scores for remuneration and benefits, career development and stability, organization integration, interpersonal relationship, leadership and management, and job itself dimensions among psychiatric medical care personnel all significantly decreased. The differences were remarkable with statistical significance ( $P < 0.05$ ). The research result was consistent with the study outcome obtained by Zhou et al. (2019)<sup>(21)</sup>. It was demonstrated that job satisfaction among psychiatric medical care personnel in Wuhan area could be greatly improved.

In future, hospital organization and management systems should be optimized to create a good working environment, optimize the training management of each position and promotion mechanism, and cultivate the identity and satisfaction of medical care personnel.

### Conclusion

In the research, the causes of the attacks on psychiatric and non-psychiatric medical care personnel within organizations in Wuhan area and job satisfaction were investigated, which showed that the incidence of the attacks on psychiatric medical care personnel within organizations was obviously higher than that on non-psychiatric medical care personnel within organizations. Besides, working year, education level, the number of monthly night shifts, whether to report after attack, and whether they ever received relevant training were the independent risk factors of the attacks on psychiatric medical care personnel within organizations. Compared with those among non-psychiatric medical care personnel, the average scores for all job satisfaction dimensions among psychiatric medical care personnel all significantly decreased. Nonetheless, there are still some shortcomings in the research. Only a small number of questionnaires were included and the content design of questionnaire needs to be further optimized in follow-up studies.

To sum up, the incidence of the attacks on psychiatric medical care personnel within organizations in Wuhan area was apparently higher than that on non-psychiatric medical care personnel. In addition, their job satisfaction was significantly lower than that among non-psychiatric medical care personnel. The research had some reference values in the field of job satisfaction among psychiatric medical care personnel and doctor-patient relationship.

### References

- 1) Odes R, Chapman S, Harrison R, Ackerman S, Hong O. Frequency of violence towards healthcare workers in the United States inpatient psychiatric hospitals: A systematic review of literature. *Int J Ment Health Nurs*. 2021 Feb; 30(1): 27-46. doi: 10.1111/inm.12812. Epub 2020 Nov 4. PMID: 33150644.
- 2) Ham E, Seto MC, Rodrigues NC, Hilton NZ. Workplace stressors and PTSD among psychiatric workers: The mediating role of burnout. *Int J Ment Health Nurs*. 2022 May 16. doi: 10.1111/inm.13015. Epub ahead of print. PMID: 35574982.
- 3) Rosenthal LJ, Byerly A, Taylor AD, Martinovich Z. Impact and Prevalence of Physical and Verbal Violence Toward Healthcare Workers. *Psychosomatics*. 2018 Nov; 59(6): 584-590. doi: 10.1016/j.psych.2018.04.007. Epub 2018 May 9. PMID: 29909013.
- 4) Kelly EL, Fenwick KM, Brekke JS, Novaco RW. Sources of Social Support After Patient Assault as Related to Staff Well-Being. *J Interpers Violence*. 2021 Jan; 36(1-2): NP1003-NP1028. DOI: 10.1177/0886260517738779. Epub 2017 Oct 31. PMID: 29294965; PMCID: PMC6445776.
- 5) Han X, Jiang F, Shen L, Liu Y, Liu T, Liu H, Wang P, Yang Z, Tang YL, Zhu J. Workplace Violence, Workforce Stability, and Well-being in China's Psychiatric Hospitals. *Am J Prev Med*. 2022 Apr; 62(4): e265-e273. DOI: 10.1016/j.amepre.2021.09.013. Epub 2021 Dec 2. PMID: 34865934.
- 6) Hsieh HF, Wang HH, Shen SH, Li YC. Predictors of depressive symptoms among psychiatric nurses who suffered from workplace violence. *J Adv Nurs*. 2018 Feb; 74(2): 425-432. doi: 10.1111/jan.13451. Epub 2017 Oct 6. PMID: 28880395.
- 7) Al Ali S, Pihl-Thingvad J, Elklit A. Does acute stress disorder predict posttraumatic stress disorder following workplace violence? A prospective study of psychiatric staff. *Int Arch Occup Environ Health*. 2021 Apr; 94(3): 359-366. DOI: 10.1007/s00420-020-01586-7. Epub 2020 Oct 13. PMID: 33051773.
- 8) Bromley G, Painter S. Ensuring Workplace Safety: Evidence Supporting Interventions for Nurse Administrators. *J Nurs Adm*. 2019 Nov; 49(11): 525-530. doi: 10.1097/NNA.0000000000000807. PMID: 31651611.
- 9) Hilton NZ, Addison S, Ham E, C Rodrigues N, Seto MC. Workplace violence and risk factors for PTSD among psychiatric nurses: Systematic review and directions for future research and practice. *J Psychiatr Ment Health Nurs*. 2022 Apr; 29(2): 186-203. DOI: 10.1111/jpm.12781. Epub 2021 Jul 24. PMID: 34214247.
- 10) Okundolor SI, Ahenkorah F, Sarff L, Carson N, Olmedo A, Canamar C, Mallett S. Zero Staff Assaults in the Psychiatric Emergency Room: Impact of a Multifaceted Performance Improvement Project. *J Am Psychiatr Nurses Assoc*. 2021 Jan-Feb; 27(1): 64-71. doi: 10.1177/1078390319900243. Epub 2020 Jan 22. PMID: 31965897.
- 11) Wang PY, Fang PH, Wu CL, Hsu HC, Lin CH. Workplace Violence in Asian Emergency Medical Services: A Pilot Study. *Int J Environ Res Public Health*. 2019 Oct 16;



- 16(20): 3936. DOI: 10.3390/ijerph16203936. PMID: 31623179; PMCID: PMC6843119.
- 12) Varghese A, Joseph J, Vijay VR, Khakha DC, Dhandapani M, Gigini G, Kaimal R. Prevalence and determinants of workplace violence among nurses in the South-East Asian and Western Pacific Regions: a systematic review and meta-analysis. *J Clin Nurs*. 2022 Apr; 31(7-8): 798-819. doi: 10.1111/jocn.15987. Epub 2021 Aug 5. PMID: 34351652.
- 13) Lawn RB, Nishimi KM, Sumner JA, Chibnik LB, Roberts AL, Kubzansky LD, Rich-Edwards JW, Koenen KC, Thurston RC. Sexual Violence and Risk of Hypertension in Women in the Nurses' Health Study II: A 7-Year Prospective Analysis. *J Am Heart Assoc*. 2022 Mar; 11(5): e023015. doi: 10.1161/JAHA.121.023015. Epub 2022 Feb 22. PMID: 35189695; PMCID: PMC9075082.
- 14) Marhoon A, Al-Shagag A, Cowman S.A Population Study of Safety and Security in Admission Psychiatric Wards in the Kingdom of Bahrain. *Issues Ment Health Nurs*. 2019 Dec; 40(12): 1019-1025. DOI: 10.1080/01612840.2019.1630534. Epub 2019 Aug 9. Erratum in: *Issues Ment Health Nurs*. 2020 Dec; 41(12): 1127. PMID: 31398079.
- 15) Olashore AA, Akanni OO, Ogundipe RM. Physical violence against health staff by mentally ill patients at a psychiatric hospital in Botswana. *BMC Health Serv Res*. 2018 May 11; 18(1): 362. DOI: 10.1186/s12913-018-3187-6. PMID: 29751808; PMCID: PMC5948676.
- 16) Zolo M, Della Rocca F, Tedeschi F, Zucchetto M, Maddalena G, Vettore G. Violence against health workers: findings from three emergency departments in the teaching hospital of Padua, Italy. *Intern Emerg Med*. 2020 Sep; 15(6): 1067-1074. DOI: 10.1007/s11739-020-02290-7. Epub 2020 Feb 18. PMID: 32072369.
- 17) Lakatos BE, Mitchell MT, Askari R, Etheredge ML, Hopcia K, DeLisle L, Smith C, Fagan M, Mulloy D, Lewis-O'Connor A, Higgins M, Shellman A. An Interdisciplinary Clinical Approach for Workplace Violence Prevention and Injury Reduction in the General Hospital Setting: S.A.F.E. Response. *J Am Psychiatr Nurses Assoc*. 2019 Jul/Aug; 25(4): 280-288. doi: 10.1177/1078390318788944. Epub 2018 Jul 16. PMID: 30009653.
- 18) Hsu MC, Chou MH, Ouyang WC. Dilemmas and Repercussions of Workplace Violence against Emergency Nurses: A Qualitative Study. *Int J Environ Res Public Health*. 2022 Feb 25; 19(5): 2661. DOI: 10.3390/ijerph19052661. PMID: 35270354; PMCID: PMC8909790.
- 19) Kader N, Elhusein B, Elhassan NM, Alabdulla M, Hammoudeh S, Hussein NR. Burnout and job satisfaction among psychiatrists in the Mental Health Service, Hamad Medical Corporation, Qatar. *Asian J Psychiatr*. 2021 Apr; 58: 102619. doi: 10.1016/j.ajp.2021.102619. Epub 2021 Feb 25. PMID: 33657445.
- 20) Lambert EG, Paoline EA 3rd, Hogan NL. The Effects of Inmate Medical Issues on Correctional Staff Job Involvement and Organizational Commitment. *J Correct Health Care*. 2020 Jan; 26(1): 66-82. DOI: 10.1177/1078345819897609. Epub 2020 Jan 3. PMID: 31898467.
- 21) Zhou H, Jiang F, Rakofsky J, Hu L, Liu T, Wu S, Liu H, Liu Y, Tang YL. Job satisfaction and associated factors among psychiatric nurses in tertiary psychiatric hospitals: Results from a nationwide cross-sectional study. *J Adv Nurs*. 2019 Dec; 75(12): 3619-3630. doi: 10.1111/jan.14202. Epub 2019 Nov 6. PMID: 31566793.

*Fundings:*

*The research is supported by: Scientific Research Youth Project of Wuhan Municipal, ( No.: WX18Q30).*

*Corresponding Author:*

DAN LIAO

Email: liaodan2022@yandex.com

(China)