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The Current Situation and Influencing Factors of Presenteeism among Clinical Nurses in Hubei Province, China: A Cross-Sectional Study

Hui Qin

Independent Researchers, China

ABSTRACT

Aim: This study investigated the presenteeism of Chinese clinical nurses in Hubei province and its influencing factors.

Design: A cross-sectional design.

Methods: A total of 2222 clinical nurses in Hubei province were investigated from October to December 2023. The presenteeism level was measured by using the Stand ford Presenteeism Scale, the socio-demographic data, Inclusive leadership and organizational support was measured using a self-made structured questionnaire, Inclusive Leadership Scale, Organizational Support Scale. Descriptive statistics, univariate analysis, correlation analysis and Stepwise multiple linear regression analysis was used to evaluate factors affecting the presenteeism of clinical nurses.

Results: The scores for the clinical nurses in presenteeism, inclusive leadership and organizational support were (16.95±3.27), (36.14±5.02) and (50.17±7.64), respectively. There were differences in Age, educational background, marital status, Childlessness status, establishment type, professional title, position, length of service, department category on nurses' presenteeism, but no differences in gender, exercise frequency, physical condition, and religious beliefs. Correlation analysis showed that nurses' perceived inclusive leadership and organizational support are negatively correlated with presenteeism, Stepwise multiple linear regression showed that marital status Employment method Professional title number of night shifts inclusive leadership and organizational support are the influencing factors of implicit absenteeism among clinical nurses.

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Introduction

Presenteeism refers to the various problems of the unit staff, including psychological problems or physical health problems caused by the decline during the work of attention, during the work there is no way to put all the body and mind into the work, resulting in decreased attention and unable to devote themselves to the work, the decline of work efficiency and not responsible for the job [1].

Domestic relevant research reports point out that the recessive absence behavior is common among domestic medical staff, while nurses are more prone to Presenteeism behaviour. The high Presenteeism of nurses in the department accounted for more than 50%, Among them, the pediatric nurses with a high Presenteeism rate accounted for 58.3% [2]. One survey reported that 62 percent of the 1171 nurses in a state have Presenteeism behaviour at least once in the past year, with large hospitals becoming more serious than small and medium-sized hospitals [3].

Clinical nurses have heavy work tasks, complex nursing objects, special working environment, and their physical and mental health are often affected to varying degrees, leading to the presenteeism phenomenon [4,5]. However, Nurses are the main force of hospital care for patients. If the presenteeism behaviour occurs, the quality of nursing service will be reduced. The more serious the presenteeism behavior is, the more likely it is to cause adverse effects on the safety of patients and the quality of medical treatment [6]. In addition, the presenteeism of nurses can lead to lower nursing work efficiency, increase the risk of nursing errors, and increase medical costs [7]. There was a significant correlation between presenteeism of nurses and increased number of patient falls, increased number of dosing errors by nurses, and decreased quality of care. Researchers found that the economic loss of patient falls and medication errors is over \$1346 per year caused by nurses' presenteeism behaviour, which resulting economic losses totaled more than \$2 billion a year, with significantly increased medical costs and economic costs [8].

Contact Hui Qin, Independent Researchers, China.

The study on presenteeism is still in its infancy in China, and there are few studies focusing on presenteeism of clinical nurses. In a small number of existing studies, the research objects are mostly limited to nurses in a certain department, so there is a lack of overall perspective study.

The purpose of this study is to understand the current situation of presenteeism of clinical nurses in the tertiary hospitals of Hubei province, analyze the influencing factors of it, in order to provide reference for nursing researchers on presenteeism of clinical nurses, and provide new ideas for nursing managers to take targeted measures to reduce the incidence of presenteeism.

Methods

Design

For data collection, a cross-sectional questionnaire survey was conducted from June to July 2023. The manuscript was developed using the STROBE checklist for cross-sectional studies.

Participants

2222 nurses from 4 tertiary hospitals in Hubei province were selected as participants in the study. Inclusion criteria were: (1) Hold a nurse practice certificate; (2) Working time of one year or more; (3) Currently engaged in nursing work in the hospital; (4) Informed consent and willingness to participate in this study. Exclusion criteria were: rotation or leave, interns, and refresher clinical nurses.

Assessment Instruments

The survey consists of four parts: demographic characteristics, The Stanford Presenteeism Scale, The Inclusive Leadership Scale and the Organizational Support Scale.

Demographic Characteristics

We used a self-designed demographic questionnaire to collect the information of participants, including gender, age, educational background, marital status, have children or not, employment method, professional title, position, nursing work experience, department, night shift, physical exercise after work, history of basic diseases, health status and religious belief, etc. These factors were selected based on previous research.

The Stanford Presenteeism Scale (SPS-6)

SPS-6 was compiled by Koopman, and revised by Chinese scholar Zhao Fang in 2010 [9]. Including 6 items, and responses are scored on a five-point Likert scale, with items 1-4 being positive scores and items 5 and 6 being negative scores. The total score of the scale is the sum of the scores of the 6 items, with a total score range of 6-30 points. The higher the score, the higher the presenteeism. The Cronbach's α coefficient of this scale ranged from 0.760 to 0.912, which has good reliability and validity, and it is widely used in nursing area. The Cronbach's α coefficient of the SPS-6 in this study was 0.886.

The Inclusive Leadership Scale

The Inclusive Leadership Scale was developed by Carmeli et al., and Chinese scholar Peng Wei was revised in 2016. The scale consists of three dimensions and nine items, Including openness (3 items), availability (4 items) and accessibility (2 items) [10]. Each item is rated on a five-point Likert-type scale ranging from 1 ('not at all') to 5 ('very much'), with higher scores indicating more prominent inclusive leadership styles for nurse managers. The scale has good reliability and validity, with a Cronbach's α coefficient of 0.90. The Cronbach's α coefficient of this scale in the study was 0.842.

The Organizational Support Scale

The Organizational Support Scale, revised by Zuo Hongmei, is based on Chen ZX's scale, combined with the characteristics of the nursing profession and extensive consultation with experts [11]. Some items have been appropriately modified, including 2 dimensions and a total of 13 items. Among them, items 1-10 are emotional support, and items 11-13 are instrumental support. The Likert 5-level scale is used to assign values of 1-5 scores from "completely disagree" to "completely agree". The higher the score, the stronger the sense of organizational support. The scale has good reliability and validity, the cronbach's α coefficient is 0.90 and is widely used in the nursing area. The Cronbach's α coefficient of this scale in the study was 0.897.

Data Collection

This study utilized the Questionnaire Star platform and conducted an anonymous survey using electronic questionnaires. Before the investigation, informed consent was obtained from the relevant heads of the nursing departments of each hospital. The researchers obtained the contact information of the head nurse of each department through the managers of nursing departments or teaching secretaries of four hospitals, sent electronic questionnaires to head nurses through WeChat APP, and then head nurses forwarded them to the department work group for clinical nurses to fill in. To ensure the completeness and effectiveness of the collected questionnaire, a unified filling guide was used to make all questions mandatory. Each IP address can only be filled out once, and the cumulative answering time is set to be no less than 180 seconds. A total of 2294 questionnaires were distributed, 2253 questionnaires were collected, and 31 questionnaires with logical errors were excluded. Finally, 2222 questionnaires were effectively collected, with an effective recovery rate of 98.81%.

Data Analysis

The obtained data were entered and analysed using statistical analysis software SPSS version 26.0. Two research assistants rechecked the data, and the questionnaires that did not meet the inclusion criteria were excluded from the analysis. The normality tests were used to observe whether the data conform to normal distribution. The median (interquartile range) was used to describe data because of their skewed distribution. Classification data were calculated by frequency and proportion. The difference in the

scores of nurses' presenteeism with different characteristics were compared by independent sample t-test and one-way ANOVA; The Pearson correlation analysis method was used to analyze the correlation of nurses' inclusive leadership, organizational support with nurses' presenteeism; The influencing factors of presenteeism were analyzed by multiple linear regression analysis. For all statistical tests, the significance level was set at 0.05.

Research Ethics Committee Approval

This study was approved by the Ethics Review Committee of the Jingmen City People's Hospital. Participation in this study was completely voluntary and anonymous. Prior to the commencement of the trial, all participants completed a permission form authorizing data collection. All procedures were carried out in conformity with the applicable norms and regulations. They were also told of the study's goal and the option to participate or quit at any time.

Results

Participant Characteristics

The characteristics of the respondents are presented in Table 1. Approximately 98.2% (n= 2182) of the participants were women, and most of the nurses were aged 20-30 years (n= 957, 43.1%). Most nurses have undergraduate degree (n= 1807, 81.3%) and only a few have a master's degree or above (n=42, 1.9%). 1631 nurses were married and 1628 nurses have children. The majority of nurses are contracted (n=1025, 46.1%). More than half of the nurses have primary professional titles (n= 1200, 54.0%). Nurses working for 1-10 years comprised the largest group (n= 1336, 60.1%) and 1177 nurses have 1-5night shifts per month. Nurses mainly come from internal medicine department (n=729, 32.8%) and surgery department (n=592,26.6%). More than half of the nurses do 1-2 physical exercises per month (n= 1316, 59.2%) and most nurses are in good physical condition. Only 28 nurses have religious beliefs.

Table 1: Demographic Characteristics of Participants (N=2222)

Variable	N	%	Presenteeism Score	t/F	P
Gender				t=1.536	0.125
Male	94	4.23	17.46±2.50		
Female	2128	98.20	16.93±3.30		
Age				F=15.462	0.000
20-30	957	43.07	17.78±2.37		
31-40	863	38.84	17.55±3.09		
41-50	304	13.68	14.41±3.62		
51-60	95	4.28	11.46±1.87		
>61	3	0.14	11.00±1.00		
Educational background				F=15.624	0.000
polytechnic school	21	0.95	13.09±3.37		
Junior college	352	15.84	17.61±2.83		
Undergraduate degree	1807	81.32	16.88±3.31		
Master degree or above	42	1.89	16.29±3.36		
Marital status				F=25.437	0.000
unmarried	502	22.59	17.85±2.64		
married	1631	73.40	16.71±3.36		
Divorce or Widow	89	4.01	16.33±4.03		
Have children or not				t=8.827	0.000
Yes	1628	73.27	16.61±3.44		
No	594	26.73	17.88±2.57		
Employment method				F=169.07	0.000
Formal preparation	517	23.27	14.94±4.11		

Contract system	1025	46.13	17.15±2.83		
Personnel Agency	680	30.60	18.17±2.34		
Professional title				F=309.33	0.000
Nurse	218	9.81	17.71±2.53		
Junior title	1200	54.01	17.58±2.81		
Intermediate title	598	26.91	17.33±3.04		
Senior title	206	9.27	11.39±1.35		
Nursing work experience (years)				F=169.13	0.000
<10	1336	60.13	17.72±2.75		
10~20	563	25.34	17.02±2.83		
21~30	184	8.28	15.35±4.23		
31~40	135	6.08	11.41±1.59		
>40	4	0.18	10.75±0.96		
How many night shifts every month				F=214.10	0.000
No	384	17.28	13.66±2.57		
1~5	1177	52.97	17.35±2.92		
6~10	608	27.36	18.06±2.36		
>10	53	2.39	19.19±1.97		
Department					
Surgery	729	32.81	16.94±3.09		
Medicine	592	26.64	17.43±3.23		
Oncology	72	3.24	16.94±3.06		
ICU	148	6.66	17.59±2.72		
operating room	139	6.26	16.19±3.23		
outpatient service	145	6.53	14.79±3.75		
emergency room	119	5.36	17.57±3.07		
Other	278	12.51	16.83±3.49		
Weekly physical exercise frequency (after work)				F=1.852	0.136
No	336	15.12	17.21±3.26		
1~2	1316	59.23	16.97±3.27		
1~2	350	15.75	16.63±3.22		
>2	220	9.90	16.96±3.39		
Health status				t=0.681	t=0.681
Good	1859	83.66	16.97±3.30		
Bad	363	16.34	16.84±3.14		
Religious belief					
No	2194	98.74	16.96±3.28	t=0.964	0.335
Yes	28	1.26	16.36±2.89		

Score of Presenteeism of Nurses (Table 2)

Table 2 shows that the total score of the Stanford Presenteeism Scale nurses is high, which indicates that although nurses are working, their work efficiency is very low.

Table 2: Items and Total Scores of Nurses' Stanford Presenteeism Scale

Variate	Score range	Score(x±s)
In the past month, due to health issues, my work pressure has become even more difficult to regulate.	1~5	3.48±1.07
In the past month, due to health issues, I have been unable to complete difficult tasks in my work.	1~5	2.96±1.02
In the past month, due to health issues, I have been unable to enjoy my work.	1~5	3.13±1.18
In the past month, due to health issues, I feel it is impossible to carry out certain work tasks.	1~5	3.29±1.07
In the past month, despite health issues, I have been able to concentrate and complete my work.	1~5	1.99±0.71
In the past month, despite health issues, I still feel energized and able to complete all work.	1~5	2.09±0.79
Total	6~30	16.95±3.27

Score of The Inclusive Leadership Scale of nurses (Table 3)

Table 3: Score of The Inclusive Leadership Scale of Nurses

Dimension	Items(n)	Score range	Score(x±s)
Openness	3	3~15	12.23±2.00
Availability	4	4~20	15.59±2.59
Accessibility	2	2~10	8.32±5.02
Total	9	9~45	36.14±5.02

Score of The Organizational Support Scale (Table 4)

Dimension	Items(n)	Score range	得分 (x±s)
Emotional support	10	12~50	36.70±6.14
Instrumental support	3	4~15	11.48±7.64
Total	13	18~65	50.17±7.64

Correlation of nurse inclusive leadership, organizational support and Presenteeism (Table 5)

Table 5: Correlation of Nurse Inclusive Leadership, Organizational Support and Presenteeism

Variate	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6	Presenteeism
Openness	-0.260**	-0.215**	-0.159**	-0.117**	-0.138**	-0.013**	-0.280**
Availability	-0.256**	-0.219**	-0.180**	-0.132**	-0.081**	-0.056**	-0.291**
Accessibility	-0.242**	-0.215**	-0.220**	-0.198**	-0.082**	-0.031**	-0.315**
Inclusive leadership	-0.290**	-0.247**	-0.206**	-0.159**	-0.115**	-0.041**	-0.333**
Emotional support	-0.134**	-0.102**	-0.143**	0.023**	-0.279**	-0.394**	-0.275**
Instrumental support	-0.228**	-0.208**	-0.196**	-0.144**	-0.147**	-0.111**	-0.316**
Organizational support	-0.172**	-0.140**	-0.170**	-0.022**	-0.266**	-0.348**	-0.310**

Notes: ** Level 0.01 (double tail) with significant correlation

Results of multiple linear regression analysis of nurses' presenteeism influencing factors (Table 6)

Table 6: Multiple Linear Regression Analysis of Nurses' Presenteeism Influencing Factors

Variables	β	SE	β'	t	P
constant	19.126	2.953		6.476	0.000
age	-0.063	0.115	-0.147	-0.550	0.582
Educational background	0.021	0.144	0.003	0.143	0.886
Marital status	0.552	0.234	0.081	2.359	0.018
Have children or not	-0.232	0.273	-0.031	-0.850	0.395
Appointment method	-1.893	0.235	0.422	-8.050	0.000
Professional title	0.436	0.197	0.104	2.218	0.027
Nursing work experience (years)	-0.161	0.094	-0.418	-1.715	0.087
How many night shifts every month	2.179	0.230	0.480	9.471	0.000
Department	0.012	0.024	0.009	0.489	0.625
Inclusive leadership	0.041	0.014	0.095	2.900	0.004
Organizational support	-0.076	0.017	-0.116	-4.484	0.000

Notes: $F=69.913$, $R^2=0.258$, $\Delta R^2=0.254$, $P<0.001$.

Discussion

The results of this study show that the presenteeism score of nurses in tertiary hospitals in Hubei province is 16.95 ± 3.27 , which is higher than the survey results of clinical nurses in tertiary hospitals by Ding Hui, Wu Yue and Chen Rose [12-14]. Compared with the median score of 15 points in the scale, it is at a moderate to high level. The analysis of the reasons may be related to the city's large demand for medical treatment, the shortage of nursing human resources, specific performance in the (1) workload: tertiary general hospital outpatient and inpatient mobility is large, the need for surgery and rescue is very common, the work task of nurses is heavy; (2) High pressure of nursing management environment: the nursing quality management of tertiary general hospitals is higher than that of other grades and other types of hospitals, while promoting the effective implementation of nursing norms, it also causes a certain pressure on nursing staff; (3) High social expectations: with the continuous advancement of medical reform, the people's requirements for medical level and nursing service quality are getting higher and higher. Nurses must spend more time and energy to improve their business ability, leading to greater physical and mental pressure; (4) Low professional security: the incidence of workplace violence among nurses in Hubei province hospitals is high, and the tertiary hospitals is higher than that of secondary hospitals [15,16]. Under the continuous exposure of medical disputes and medical injuries, the nurses' professional sense of security decreases. Therefore, hospital managers should attach great importance to the nurse presenteeism phenomenon, pay attention to clinical nurses' physical and mental health and the implementation of humanistic care, increase the intensity of nursing professional investment and management depth, provide targeted violent response resources, so as to improve nurses' work enthusiasm, creativity and work efficiency, and reduce the loss of productivity caused by presenteeism behavior.

The results of this study showed that the nurses' perceived inclusive leadership score was 36.13 ± 5.02 , which was at a higher level compared with the median of the total score of 22 points. Leadership style will affect the work quality of clinical nurses, patients and working environment [17]. Inclusive managers are more willing to listen to employees' different views, enhance their self-cognition, encourage employees to make bold suggestions, and give employees timely and effective help and support [18]. Research shows that there is a negative correlation between the inclusive leadership style of nursing managers and the presenteeism of nurses. Nurses under inclusive leadership feel respected and cared for, supported and understood, which will make better work performance and more conducive to the diversified development of team diversification [19]. Survey results show that nurses inclusive leadership at a higher level, analysis may be managers in strengthening the management of nursing staff at the same time, through open, amiable leadership, based on the basic principles of equality and reciprocity, voluntarily to provide power for nurses, accept their shortcomings and Suggestions, so as to improve the positive work attitude of nurses.

The study found that the nurses' organizational support was 50.17 ± 7.64 , which was at a high level compared with the median value of the total scale score of 65 points. The study found that when the hospital organization gives obvious support and help to clinical nurses, it will stimulate the good working state and mental outlook of the nurses, so as to improve the work efficiency and work efficiency of the organization, so as to form a virtuous cycle [20]. In addition, organizational support can enhance nurses' professional identity and sense of professional value, and improve job satisfaction, which is conducive to nurses' work input and reduce the occurrence of

presenteeism behavior [21]. We suggest that nursing managers on the one hand should give nursing staff full understanding and respect, objective, comprehensive and fair evaluation of the comprehensive performance of hospital clinical nursing staff, implement more praise, less punishment, and calm down the negative work mood. On the other hand, we actively pay attention to the life of nursing staff, pay attention to the professional development of nursing staff, provide fair promotion opportunities, carry out career development training, encourage participation in continuing education programs, so on, and establish a harmonious relationship with them.

Correlation analysis showed that nurse's perceived inclusive leadership and organizational support are negatively correlated with presenteeism, Stepwise multiple linear regression showed that marital status Employment method Professional title number of nights shifts inclusive leadership and organizational support are the influencing factors of presenteeism among clinical nurses. Nursing managers should pay attention to establish and improve the management system, explore the evaluation and employment system of professional and technical titles, innovate the reasonable salary assessment and incentive system, and strengthen the humanistic care of nurses in hiring way. The one-way variance results showed that the presenteeism scores of nurses with junior, intermediate and senior professional titles decreased successively, that is, the lower the nurses with professional titles, the higher the level of presenteeism, which consistent with the findings of Zhu Yan study [22]. The reason may be that the senior nurses generally undertake management or teaching work is relatively stable, while the junior and intermediate nurses generally undertake clinical frontline work, title promotion pressure, time and energy consumption, work engagement and work efficiency decline, which damage their physical and mental health to some extent, leading to the presenteeism behaviour. The results showed that the presenteeism score of nurses with more night shifts were higher than nurses with less night shifts, which was consistent with ren Yuexia's study [23]. Nursing managers should conduct flexible scheduling according to the actual situation of the department, establish a more flexible nursing team, maximize the potential of nurses, improve the work input of nurses [24,25]. Inclusive leadership can influence the nurses presenteeism behavior, the reason may be nursing managers inclusive leadership style can enhance the level of subordinate nurse's insider identity perception, and effectively promote subordinate nurse's psychological authorization perception, nurses can feel the support and help from the organization, will be more actively into the nursing work.

Limitations

The findings of this regional survey should be interpreted cautiously because of the following limitations. This study was conducted in the Hubei province Region, no additional data from other provinces. Therefore, the results cannot be generalized to all Chinese nurses. Secondly, this study is a self-report survey method, which may lead to inflated or underestimated scores on the measurement scale, and possible inherent bias cannot be ruled out.

Conclusion

The current situation of presenteeism of nurses in the tertiary hospitals in Hubei province is relatively serious, among which different marital status Employment method Professional title number of nights shifts inclusive leadership and organizational support are the main influencing factors of nurses' presenteeism behavior. Nursing managers should formulate scientific and effective management system, make rational use of nursing human resources, implement humanistic care for nurses, adopt inclusive leadership, so as to improve the work enthusiasm and efficiency of nurses, so as to reduce the incidence of presenteeism.

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