Heliyon 9 (2023) e22097

Contents lists available at ScienceDirect

Heliyon

journal homepage: www.cell.com/heliyon

The relationship between presenteeism among nurses and patients' experience in tertiary hospitals in China

Shujie Guo [a,1], Heng Zhang [b,1], Yulan Chang [c], Jihao Zhang [d], Huiling Chen [e], Linhong Zhang [e,*]

[a] Department of Clinic, Henan Provincial People's Hospital, China
[b] Department of Urology Surgery, Henan Provincial People's Hospital, China
[c] Department of Nursing, Henan Vocational College of Nursing, China
[d] Department of Student Mental Health Education Center, Henan University of Technology, China
[e] Department of Nursing, Fuwai Central China Cardiovascular Hospital, China

ARTICLE INFO

Keywords:
Presenteeism
Patient experience
Nursing work
Nurse health
Cross-sectional

ABSTRACT

This study aims to observe the current situation of nurses' presenteeism and the relationship between presenteeism among nurses and patient perceptions and examine its implications for nursing management. The study design was quantitative, correlational and cross-sectional. The researchers used convenience samples of nurses and patients from five hospitals who agreed to participate in an online survey distributed using Sojump Survey Software. A total of 500 in-service nurses from five tertiary hospitals in Henan Province in China were recruited as the nurse participants. Among them, 433 met the inclusion criteria and completed the general information questionnaire and the presenteeism scale. Patients who were hospitalised for three days or more and were cared for by one or more nurse participants were included in the study. In total, 435 patient participants answered the Inpatient Experience Questionnaire. The responses collected from both groups were analysed using descriptive and inferential statistics.Nurses' presenteeism was a key factor that affected patient experience. Presenteeism among nurses is a common phenomenon. Although patients' experience was overall positive, there is still room for improvement. Reducing presenteeism among nurses is crucial for improving patient experience, creating harmonious nurse–patient relationships and sharing a common mission.

1. Introduction

Presenteeism is a behaviour that occurs when employees, despite complaints and ill health that should prompt rest but absence from work, still come to work [1]. Existing studies have shown that nurses are one of the groups with a high incidence of presenteeism because of their heavy workload, rostering, night shifts and the indispensable nature of their role in general [2,3].

Presenteeism among nurses can seriously affect their physical and mental health and reduce their job satisfaction; furthermore, it can also affect the efficacy of the treatment and rehabilitation of patients and give rise to serious negative consequences within healthcare organisations [4,5]. Presenteeism has attracted extensive attention from researchers in nursing management, public health

* Corresponding author. No. 1, Fuwai Avenue, Zhengdong New Area, Zhengzhou, 450000, China.
E-mail address: zhanglinhong1717@163.com (L. Zhang).
[1] These authors contributed equally to this study.

https://doi.org/10.1016/j.heliyon.2023.e22097
Received 10 January 2023; Received in revised form 1 November 2023; Accepted 3 November 2023
Available online 10 November 2023

and occupational psychology.[6,7]China's healthcare has undergone a remarkable transformation in the past 20 years. However, research on patient experience remains lacking, as does its association with presenteeism among nurses.

With advancements in technology and the modernisation of hospital services, the role of nurses continues to expand to cope with the ever-increasing demands for care and meet patient expectations. Although nurses may do their best to deliver the necessary care, their own health may sometimes be negatively impacted. Physical discomfort may allow them to complete certain tasks but this may not always guarantee the quality of the care being provided. This can adversely affect patient experience during hospitalization.

The patient's experience includes the overall impression of every interaction between the patient and the doctors, nurses and other medical staff in the institution. Patient experience has become an index for society with which to determine the quality of hospital services [6,7]. In China, 94.25 % of nurses reported that they had engaged in presenteeism in the preceding six months [1]. It is thus crucial to examine presenteeism within the Chinese nursing profession [1]. Many studies currently focus on the influencing factors of nurses' presenteeism and how to address it [8,9]. This study focused on the relationship between patient experience and nurses' presenteeism, making contributions to improving the quality of nurse service.

This study aims to understand the current situation and the relationship between presenteeism among nurses and patient perceptions to improve the latter's medical experience, create harmonious nurse–patient relationships, forge a community with a common mission and provide a reference for nursing managers for targeted management.

The following study questions were considered: What are the relationships between presenteeism among nurses and the experience of patients, and what reference can the research results provide for nursing managers to implement targeted management in hospitals?

2. Methods

2.1. Study design

The study design was quantitative, correlational and cross-sectional. A cross-sectional method was employed to select specific types of hospitals to obtain a representative sample [10]. Usually, tertiary hospitals have more patients than secondary hospitals, and nurses have a greater workload and more contact with patients. Therefore, we chose nurses from tertiary hospitals as participants in this study. In order to make the results more representative, we included speciality hospitals and general hospitals. According to the number of speciality hospitals and general hospitals in Henan Province, select the corresponding number of hospitals in an equal proportion.The information of 500 nurses and 500 patients from five hospitals was collected using questionnaires.Due to the large sample size of patients and nurses surveyed, it is not possible to match nurses and patients, so there was no matching relationship between nurses and patients in this study.

2.2. Inclusion and exclusion criteria

The inclusion criteria for nurses were as follows: (1) registered nurse; (2) working $\geq$1 year; 3) willing to give consent to participate in the study. The exclusion criteria were as follows: (1) nurses who had been on leave for more than six months in the previous year for various reasons; (2) nurses who were absent from work (on vacation or leave) when the questionnaire was administered; (3) nurses with a history of mental illness; (4) nurses who were not directly in contact with patients, such as the head nurse and head of the nursing department (In China, the professional titles of nurses include junior, intermediate, and senior. The deputy chief nurse belongs to the senior professional title and still participates in the normal nursing work. Except for the Matron and the director of the nursing department, nurses with other professional titles all participate in the same nursing work. The Matron and head of nursing department were not included in this study.)

The inclusion criteria for patients were as follows: (1) patients with a hospital stay greater than or equal to three days; (2) patients under the care of one of the nurse participants; (3) patients who were willing to give consent to participate in the study. The exclusion criteria were as follows: (1) cognitive impairment or an inability to complete the survey; (2) discharged patients. All participants provided signed informed consent.

2.3. Variables and measures

On the day shift, the researchers introduced this study to randomly selected nurses and patients and invited them to participate. Those willing to participate were asked to complete and sign the informed consent form before completing the questionnaire. The participants were instructed on how to complete the questionnaire correctly. The questionnaire also included demographic information, such as gender and education level.

2.4. Demographics

The researcher designed the general data questionnaire with two versions. Nurses and patients fill in information (such as age) or select options (such as gender) in the survey questionnaire.The questionnaire for nurses included information on gender, age, marital status, education level, department, professional title and monthly night shift frequency. The patient questionnaire included information related to gender, age, marital status, academic level, occupation and length of hospital stay.

2.5. Presenteeism

The presenteeism questionnaire with a Cronbach's alpha (α) coefficient of 0.87, was used for this survey [11]. The content included two options, i.e. 'although you feel unwell, you still force yourself to work' and 'although you have physical symptoms, such as headache or back pain, you still force yourself to work'. The participants were asked to enumerate how many times they had adhered to the above behaviours within the preceding six months. The questionnaire adopted a Likert scale with a maximum of four points, i.e. 'never' was scored 1 point, 'once' was scored 2 points, 'two-to-five times' counted 3 points and 'more than five times' equalled 4 points. The scale was an equidistant scale, collecting scores for different items for analysis.In addition, nurses were asked to list the common discomfort and symptoms they experienced in cases where they nonetheless chose to remain at work. This study selected Cronbach's α coefficient and overall correlation to test the scale internal consistency.In this study, Cronbach's α coefficient of the scale was 0.85. In terms of overall correlation, pearson correlation analysis showed that the total correlation between the two items of the scale and their total scores was $r = 0.68$, 0.75, and $P < 0.01$, respectively, with statistical significance.

2.6. Inpatient experience

The inpatient experience questionnaire (IPEQ) adopted in this study was the patient experience scale described by Jia et al. [12,13] with a Cronbach's α coefficient of 0.95 and a content validity index of 0.76. The IPEQ structure included eight dimensions as follows: experience regarding accessibility, service attitude, emotional support, environmental logistics, technology quality, disease communication, perceived value and satisfaction items. There were 29 items, of which 7 were reverse-scoring questions, set to identify false answers.The scale was an equidistant scale, collecting scores for different items for analysis. A Likert scale scored the core items of the scale with a maximum of 5 points, i.e. 'definitely disagree' (1), 'disagree' (2), 'not sure' (3), 'agree' (4) and 'definitely agree' (5 points). In this study, Cronbach's α coefficient of the scale was 0.98.The IPEQ was shown in appendix 1.

2.7. Sampling and data collection

Five hundred in-service nurses and patients under the charge of nurses in five tertiary hospitals in Henan Province were selected as the research participants through convenience sampling.[12]Questionnaires were used to collect information about nurses and patients, and data were collected from November 2020 to December 2020. Two of the hospitals were speciality hospitals and three were general hospitals.

After obtaining the permission of head nurses from the nursing departments, the investigation team surveyed the nurses and distributed the questionnaire. The head nurse of the department assisted the investigators in ensuring that the questionnaires were correctly completed and in collecting and sending the completed questionnaires to them. The participants contributed voluntarily, signed the informed consent form and completed the questionnaire anonymously and independently. Finally, two researchers summarised and analysed the collected information. Questionnaires were excluded from the analysis if data were missing from it (more than 20 % of the items) or if the logic of the completed information was inconsistent. A total of 500 nurses and 500 patients from five tertiary hospitals were investigated. Excluding invalid questionnaires, 433 valid questionnaires completed by nurses were recovered with an effective recovery rate of 86.6 %. Similarly, 435 valid patient questionnaires were recovered with an effective recovery rate of 87 %.

In this study, there were two items in the Nurse Presenteeism Scale and 29 items in the Inpatient Experience Scale, totalling 31 items. Typically, the sample size is 5–10 times the number of entries. Each item had 10 sample sizes. Considering an error of 10 %, a sample size of 341 was required; 435 samples were included in this study.

2.8. Ethical considerations

Approval was obtained from the institutional review board of the principal investigator's institution and the participating hospitals (NO.20181224002).In order to avoid face to face contact causing COVID-19 infection, Sojump Survey Software was used for the surveys, and internet protocol addresses were not collected. Participants received a study description at the start of the survey. The study description was sent to the filling person in the form of a mobile text message. It was mentioned in the study description that participation by taking the survey was considered as participants' informed consent.

2.9. Data analysis

The IBM SPSS Statistics for Windows (v.19.0) software was used to process the data. The statistical methods used were descriptive, correlational and hierarchical regression analysis. Multivariate linear stepwise regression was used for the analysis of patient experience. The multiple regression model was constructed via three steps to control the influence of confounding factors. Demographic information included in the regression analysis comprised gender, age, occupation, education level, professional title, night shift frequency and relevant departments. Inspection level $p = 0.05$.

Pearson correlation coefficient is used to measure the degree of linear correlation between two sets of continuous data, provided that the two sets of data follow a normal distribution. That is to say, if the data distribution test is conducted in the first step and it is found that the data follows a normal distribution, the Pearson coefficient is used to infer the correlation of the data.More specifically, the normality assumption of the data was examined. After checking the normality assumption of the data, as a second step,

autocorrelation cases were examined. Durbin-Watson's d value was examined for autocorrelation. Finally, correlational relationships between the variables were examined, Pearson correlation analysis was utilized to determine the relationship between nurse presenteeism, patient experience, and various dimensions of patient experience, and it was found that these relations were significant.

3. Results

3.1. Basic participant information

All 435 nurses were women.Table 1 showed the age, marital status, educational background, professional title, department, and monthly night shift frequency of nurses. The patient's age, gender, marital status, education, occupation, and length of stay were also shown in Table 1.

4. Nurses' presenteeism score

The nurses were asked whether they forced themselves to work when they felt uncomfortable or had headaches or backaches. 83.91 % of nurses still force themselves to work when they feel unwell, and 84.14 % of nurses still force themselves to work when they have physical symptoms such as headache or back pain. (see Table 2).

4.1. Patient experience score

The patient experience score was 4.17 ± 0.49, and most patients' experience was at the upper middle level as shown in Table 3.

4.2. Correlation analysis between nurse presenteeism and patient experience

There was a negative correlation between nurse presenteeism and patient experience, i.e. the higher the nurse presenteeism, the worse the patient experience ($r = -0.12$, $P < 0.05$). Presenteeism among nurses negatively correlated with patient experience in environmental logistics and technical quality ($r = -0.13$, -0.11, respectively, $P < 0.05$ for both) as shown in Table 4.

4.3. Hierarchical regression analysis of nurses' presenteeism and patient experience

Hierarchical regression was conducted using the total patient experience score as the dependent variable. As too many control variables would affect the model's overall test power (Becker, 2005), two demographic variables that were commonly used in this study were selected for model simplification. Demographic variables were introduced into the regression equation as tier 1 among the

Table 1
Basic information of nurses and patients.

Nurses			Patients		
Age [mean (standard deviation)]	26.69 (4.34)		Age [mean (standard deviation)]	50.97 (16.91)	
Gender	Male	0	Gender	Male	209
	Female	435		Female	226
Marital status	Married	297	Marital status	Married	389
	Single	135		Single	56
Educational attainment	Junior college	72	Educational attainment	Primary school education and below	89
				Junior high school	146
				High school or technical secondary school	97
	Bachelor degree or above	363		Junior college	54
				Bachelor degree or above	49
Department	Internal medicine	212	Occupation	Farmer	178
	Surgery	124		Worker	123
	Gynaecology	23		Freelance	50
	Emergency Department	12		Civil servant	25
	Oncology Department	44		Student	14
	Others	20		Retiree	38
				Others	7
Professional ranks	Primary professional title	221	First hospitalization or not	First hospitalization	234
	Intermediate professional title	113		Non first hospitalization	202
	Deputy chief nurse or above	1			
Night shift	0 times/month	20	Hospital stay	2–6 days	186
	1-4 times/month	200		7–10 days	68
	5-7 times/month	119		8 days and above	81
	8 times or more/month	96			

Table 2
Frequency of two items of presenteeism behavior and nurses' presenteeism score (person%) (N = 435).

Item	Never	Once	2~5 times	More than 5 times
Although you feel unwell, you still force yourself to work	70 (16.09 %)	125 (28.74 %)	162 (37.24 %)	78 (17.93 %)
Although you have physical symptoms such as headache or back pain, you still force yourself to work	69 (15.86 %)	118 (27.13 %)	139 (31.95 %)	109 (25.06 %)

Table 3
Current experience of inpatients and patients experience score (mean (standard deviation)).

Item	Score
Accessible and convenient experience	3.56 (0.50)
Service attitude experiences	4.56 (0.55)
Emotional support experiences	3.89 (0.80)
Environmental logistics experience	4.27 (0.74)
Experience with technical quality	4.51 (0.59)
Experiences of disease communication	3.99 (0.76)
Perceived value experiences	4.34 (0.74)
Satisfied	4.50 (0.49)
Inpatient experience	4.17 (0.49)

independent variables. Then, nurse presenteeism dimensions were introduced into the regression equation as tier 2 variables. After controlling for demographic variables, the model was found to show a good fit. The conclusion was that nurse presenteeism influenced the patient experience, nurses' presenteeism was negatively correlated with patient experience (see Table 5).

5. Discussion

In this study, 87.82 % of nurses had experienced presenteeism at different frequencies within the preceding six months. This result indicated a high prevalence of nurse presenteeism, which was consistent with the findings of other studies in China and abroad [14,15–20]. The high degree of nurse presenteeism may be related to nursing work and its elevated stress levels, technical reasons, the burden of responsibilities [4,21,22], a salary based on attendance as the root performance assessment and insufficient human resources. In this study, there was a negative correlation between nurse presenteeism and patient experience, i.e. the higher the nurse presenteeism, the worse the patient experience; that is, nurse presenteeism influenced the patient experience. Nurse presenteeism hinges on the interaction between individuals and the environment in which they live and work. Measures to reduce nurse presenteeism should focus on minimising stressors in the work environment to prevent potential harm [23]. Reducing nurse presenteeism should be addressed urgently by care managers.

The findings of this study showed that the patient experience score was 4.17 ± 0.49, a moderate-to-high-level score. This high score may have been related to the gradual penetration of quality nursing services and the implementation of medical humanities care in China. As of 2015, the management of healthcare institutions at all levels across the country launched action plans to further improve medical services. The aim of doing so was to create a welcoming medical care environment by improving the quality of medical and nursing care. This was to be achieved by strengthening humanities aspects, improving patient satisfaction, constructing harmonious doctor–patient relationships and creating a nurse–patient community with a shared mission [24]. However, there remains room for improvement in hospital management, as indicated by patient experience survey results [25]. Healthcare professionals must be able to understand whether patient experience data describe care delivery more pertinently than other indicators and how this data could be used for hospital quality improvement [26].

Nurse carers engage in and often expend additional physical, psychological and emotional resources to accomplish a task. In fact, they consume a significant amount of these resources, regardless of whether a task is well performed [27]. When nurses become ill, physical discomfort can affect their mood and physical strength, thereby affecting the quality of their work. Because nurses spend a lot of time with patients, they will have a strong impact on the patient's experience. To improve the patient experience, nurses must be able to understand the factors in the nursing work environment that impact nursing quality. Incorporating these factors into daily nursing practice will help to give rise to a more positive patient experience [28]. Nurse burnout and patient experience can be better addressed by combined strategies to reduce nurse presenteeism.

Workload and emotion dysregulation is positively associated with emotional exhaustion, while emotional dissonance is related to high levels of nurse presenteeism. Managers and organisations should make an effort to reduce negative job characteristics (i.e. workload and emotional dysregulation) [29]. Work stressors and work resources are related to presenteeism [21]. Nursing managers should pay attention to the occupational health of nurses. Every level of health plan administration in medical institutions should care for the carers to impact nurses' health by constructing a humane care delivery framework, implementing attractive nursing care initiatives [30]and reducing nurse presenteeism in China. Hospitals should establish protective strategies (hospital nursing

Table 4
Correlation between nurse presenteeism behavior and inpatient experience (N = 435).

Variable	Accessibility convenience	Service attitude	Emotional support	Environmental logistics	Technical quality	Disease communication	Perceived value	Patient experience	Presenteeism behavior
Accessible and facilitative experiences	1								
Service attitude experiences	0.34**	1							
Emotional support experiences	0.13**	0.33**	1						
Environmental logistics experience	0.45**	0.52**	0.28**	1					
Experience with technical quality	0.43**	0.64**	0.30**	0.78**	1				
Experiences of disease communication	0.23**	0.37**	0.67**	0.38**	0.43**	1			
Perceived value experiences	0.33**	0.50**	0.19**	0.68**	0.68**	0.37**	1		
Patient experience	0.54**	0.71**	0.61**	0.84**	0.85**	0.71**	0.71**	1	
Presenteeism behavior	−0.04	−0.03	−0.07	−0.13**	−0.11*	−0.09	−0.09	−0.12*	1

Notes: * *$p < 0.01$, * *$p < 0.05$.

Table 5
Hierarchical regression analysis of the influence of presenteeism behaviors on inpatient experience ($n = 435$) .

Stratification	Independent variable	Regression coefficient	Standard error	Standard regression coefficient	t	P
Level 1 analysis	Constant	4.24	0.11		38.07	0.00
	Age	−0.01	0.01	−0.05	−0.89	0.38
	Education level	−0.01	0.02	−0.01	−0.02	0.98
Level 2 analysis	Constant	4.42	0.13		34.92	0.00
	Age	−0.01	0.01	−0.05	−0.92	0.36
	Education level	0.02	0.02	0.01	0.10	0.92
	Presenteeism behaviors	−0.07	0.02	−0.137	−2.854	0.01

Note : Level 1 analysis, $R^2 = 0.01$, $F = 0.44$, $P = 0.65$; Level 2 analysis, $R^2 = 0.02$, $\Delta R^2 = 0.02$, $F = 3.01$, $P < 0.05$.

department) for first-line nurses and guarantee human resources at the hospital level to improve nurses' understanding of presenteeism and their right to sick leave. In addition, a standardised multidimensional penetrance assessment tool [21] must be developed to maintain a sustainable workforce and, in turn, improve patient experience through the timely evaluation of nurse penetrance behaviours. Nurse managers can continuously optimise the nurse practice environment and reduce nurse presenteeism by implementing a monitoring and management system that includes the entire population of nurses and their career cycle, which will ultimately benefit nurses and patients [31].

This study explored the impact of nurses' presenteeism on patients' experience, and made contributions to improving patients' satisfaction and improving the quality of nurses' service.This study did not analyze the influencing factors of nurses' presenteeism, and this study did not continue to analyze the correlation between nurses' presenteeism and different dimensions of patient experience. The cross-sectional design of the current study limits its causal inference. This study was conducted in one province hospitals; accordingly, the results may not be generalisable. This study focused on the influence of nurse presenteeism on patients' experience and did not analyze the factors influencing nurse presenteeism.

6. Conclusions

In this study, nurse presenteeism was indicated as an essential factor that affected patient experience. Nurse presenteeism requires more attention, and an effective measure in this context is to reduce work pressures on nurses and paying attention to their mental health. The government and hospital management must implement strategies and interventions to minimise nurse presenteeism and improve the patient experience.

Ethics approval and consent to participate

This study was conducted in accordance with the declaration of Helsinki.This study was conducted with approval from the Ethics Committee of Fuwai Central China Cardiovascular Hospital (NO. 20181224002). Written informed consent was obtained from all participants.

Consent for publication

Not Applicable.

Data availability statement

No data associated with the study has been deposited into a publicly available repository. Data will be made available on request.

Funding

Henan Province Medical Science and Technology Research Program of the Ministry of Education (SBGJ2018067).

CRediT authorship contribution statement

Shujie Guo: Conceptualization, Writing – original draft, Writing – review & editing. **Heng Zhang:** Conceptualization, Writing – original draft, Writing – review & editing. **Yulan Chang:** Data curation, Writing – review & editing. **Jihao Zhang:** Data curation, Writing – review & editing. **Huiling Chen:** Formal analysis, Writing – review & editing. **Linhong Zhang:** Writing – original draft, Writing – review & editing.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgements

The first author would like to thank Pro. Yongxin Li Chinese psychologists from the Institute of psychology and behavior of Henan University.Health outcomes and research policies are used for statistical analysis, consultation and investigation. We also want to thank Linhong Zhang and Xiaoying Jiang. Shujie Guo is currently supported by the training grant of the health results and Policy Research Center.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.heliyon.2023.e22097.

References

[1] G. Shan, S. Wang, W. Wang, et al., Presenteeism in nurses: prevalence, consequences, and pauses from the perspectives of nurses and chief nurses, Front. Psychiatr. 11 (2021), 584040, https://doi.org/10.3389/fpsyt.2020.584040.
[2] J.H. Zhang, Nurse's Presenteeism Behavior: a Moderated Mediating Effects Model [D], Henan University, Zhengzhou, 2018.
[3] H. Shi, T. Huang, E.S. Schernhammer, et al., Rotating night shift work and healthy aging after 24 Years of follow-up in the nurses' health study, JAMA Netw. Open 5 (5) (2022), e2210450, https://doi.org/10.1001/jamanetworkopen.2022.10450.
[4] L.A. Fiorini, J. Houdmont, A. Griffiths, Nurses' perceived work performance and health during presenteeism: cross-sectional associations with personal and organisational factors, J. Nurs. Manag. 30 (5) (2022) O37–O45, https://doi.org/10.1111/jonm.13065.
[5] J. Kang, Y. Lee, Health-related factors influencing nurse turnover by clinical career: a secondary data analysis of clinical nurses in South Korea, Int. J. Environ. Res. Publ. Health 19 (22) (2022), 15222, https://doi.org/10.3390/ijerph192215222.
[6] X.L. Xu, X. Yu, Current status of experience research on medical treatment in Chinese Medical Institutions, World updated medical information abstract 18 (6) (2018) 204–206, https://doi.org/10.19613/J.CNKI.1671-3141.2018.06.104.
[7] Z.X. Pan, Z. Shen, M.Y. Jiang, et al., Caring for patient experience to protect patient safety, Management of jiangsu health careers 30 (1) (2019) 43–45.
[8] G. Shan, W. Wang, S. Wang, et al., Authoritarian leadership and nurse presenteeism: the role of workload and leader identification, BMC Nurs. 21 (1) (2022) 337, https://doi.org/10.1186/s12912-022-01119-2.
[9] J. Zhang, S. Wang, W. Wang, et al., Nurses' job insecurity and emotional exhaustion: the mediating effect of presenteeism and the moderating effect of supervisor support, Front. Psychol. 11 (2020) 2239, https://doi.org/10.3389/fpsyg.2020.02239.
[10] Y. Li, B. Guo, Y. Wang, et al., Serial-multiple mediation of job burnout and fatigue in the relationship between sickness presenteeism and productivity loss in nurses: a multicenter cross-sectional study, Front. Public Health 9 (2022), 812737, https://doi.org/10.3389/fpubh.2021.812737.
[11] C. Zhang, M. Yu, S. Bai, et al., A study on the correlation between nurse attendance behavior and patient satisfaction, Chinese Journal of Modern Nursing 28 (10) (2022) 5, https://doi.org/10.3760/cma.j.cn115682-20210605-02447.
[12] X.C. Jia, J.J. Chen, Y.B. Chang, et al., Evaluation of the reliability of the inpatient experience scale, Zhengzhou university journal (Medical Edition) 48 (5) (2013) 646–649.
[13] L. Kuang, L. Li, Z. Luo, et al., Development and validation of the Chinese version of the general practitioner core feature function patient experience scale, China General Practitioner 24 (13) (2021) 9, https://doi.org/10.12114/j.issn.1007-9572.2020.00496.
[14] F. Giæver, L.T. Løvseth, Exploring presenteeism among hospital physicians through the perspective of job crafting, Qualitative research in organizations and management 15 (3) (2020) 296–314.
[15] J.H. Zhang, S.J. Guo, Y.X. Li, Mediating effect of presenteeism on relationships among work family conflict and psychological symptom, job satisfaction in nurses, Chin. J. Ment. Health 32 (6) (2018) 515–520, https://doi.org/10.3969/j.issn.1000-6729.2018.06.012.
[16] H. Zhang, S.J. Guo, Y.L. Chang, et al., Correlation study between nurse presenteeism behaviour and patient safety, General practice nursing 18 (36) (2020) 5029–5035.
[17] Q.G. Duan, Q.M. Cheng, S.J. Guo, et al., A survey of the current status and study of countermeasures for nurses' presenteeism behavior in the ICU, A nurse rejuvenation journal 36 (9) (2021) 827–831, https://doi.org/10.16821/j.cnki.hsjx.2021.09.014.
[18] M. Freeling, J.G. Rainbow, D. Chamberlain, Painting a picture of nurse presenteeism: a multi-country integrative review, a 109 (2020) 1, https://doi.org/10.1016/j.ijnurstu.2020.103659.
[19] J.G. Rainbow, Presenteeism: nurse perceptions and consequences, J. Nurs. Manag. 27 (7) (2019) 1530–1537, https://doi.org/10.1111/jonm.12839.
[20] M.P. Mosteiro-Díaz, M. Baldonedo-Mosteiro, E. Borges, et al., Presenteeism in nurses: comparative study of Spanish, Portuguese and brazilian nurses, Int. Nurs. Rev. 67 (4) (2020) 466–475, https://doi.org/10.1111/inr.12615.
[21] M.L. Juliana Nga, B.A. Ellie, J.M. Johnston, Presenteeism exposures and outcomes amongst hospital doctors and nurses: a systematic review, BMC Health Serv. Res. 18 (2018), https://doi.org/10.1186/s12913-018-3789-z.
[22] S.J. Guo, J.H. Zhang, Y.X. Li, et al., Survey study on nurse attendance behavior, Zhonghua nursing education 14 (11) (2017) 865–868, https://doi.org/10.3761/j.issn.1672-9234.2017.11.016.
[23] A.L.C. Branco, D. Oliveira, G. Ribeiro, et al., Presenteeism: factors of risk and repercussions on the health of nursing workers, Av. Enfermería 36 (1) (2018).
[24] P.Y. Song, Results of an inpatient experience survey out of oven, Dean, Chinese hospital 15 (2018) 24–25.
[25] C. Chung, L. McKenna, S.J. Cooper, Patients' experiences of acute deterioration: a scoping review, Int. J. Nurs. Stud. 101 (103) (2020) 404–422, https://doi.org/10.1016/j.ijnurstu.2019.103404.
[26] R. Gualandi, C. Masella, M. Piredda, et al., What does the patient have to say? valuing the patient experience to improve the patient journey, BMC Health Serv. Res. 21 (2021) 1–12, https://doi.org/10.1186/s12913-021-06341-3.
[27] Y.X. Li, J.H. Zhang, S.N. Wang, et al., The effect of presenteeism on productivity loss in nurses: the mediation of health and the moderation of general self-efficacy, Front. Psychol. 8 (10) (2019) 1745.
[28] E.M. Grandfield, A.E. Schlotzhauer, E. Cramer, et al., Relationships among nurse managers' job design, work environment, and nurse and patient outcomes, Res. Nurs. Health 46 (3) (2023) 348–359, https://doi.org/10.1002/nur.22307.
[29] N. Gillet, T. Huyghebaert-Zouaghi, C. Réveillère, et al., The effects of job demands on nurses' burnout and presenteeism through sleep quality and relaxation, J. Clin. Nurs. 29 (3–4) (2020) 583–592, https://doi.org/10.1111/jocn.15116.
[30] Q. Wang, Y. Liu, Y. Wang, et al., The practice and effects of magnetic hospital on nursing management, Chin. Nurs. Manag. 18 (1) (2018) 64–68, https://doi.org/10.3969/j.issn.1672-1756.2018.01.016.
[31] I.S. Rostad, A. Fridner, M.G. Sendén, et al., Paid sick leave as a means to reduce sickness presenteeism among physicians, Nordic J. Work. Life Stud. 7 (2) (2017) 71–85.