

RESEARCH

Open Access



Factors influencing decent work among psychiatric nurses in China: a cross-sectional study

Bowen Xue¹, Luoyan Wang², Zhuojun Jiang³, Xing Wang⁴, Na Zhang⁴, Yaping Feng² and Hong Luo^{1*} 

Abstract

Aims This study aimed to investigate the current status of decent work among psychiatric nurses and analyze its influencing factors.

Methods In February 2024, a cross-sectional study was conducted with a cluster sample of 358 nurses from a tertiary Grade A psychiatric hospital in Hangzhou, Zhejiang Province, China. Data were collected using a custom-made nurse demographic scale to gather demographic information. The Effort-Reward Imbalance Questionnaire (ERIQ) was used to assess the imbalance between effort and reward through the effort-reward ratio (ERR). The Social Support Rating Scale (SSRS) measured subjective support, objective support, and support utilization. The Decent Work Perception Scale (DWPS) was used to evaluate nurses' perceptions of decent work. T-tests, one-way ANOVA, Pearson's correlation analysis, and multiple linear regression analyses were employed for data analysis.

Results The study found that the correlation between decent work and social support was positive ($r = 0.360$, $p < 0.001$), while it was negative for effort-reward imbalance ($r = -0.584$, $p < 0.001$). Factors influencing perceptions of decent work included years of work experience ($\beta = -0.164$, $p = 0.046$ for < 5 years; $\beta = -0.157$, $p = 0.040$ for > 25 years), social support ($\beta = 0.259$, $p < 0.001$), and the effort-reward imbalance ($\beta = -0.458$, $p < 0.001$). These factors collectively explained 40.2% of the variance in perceptions of decent work. Furthermore, social support plays a mediating role between effort-reward imbalance and decent work ($\beta = -0.062$, Bootstrap 95% CI: -0.107, -0.023).

Conclusion The findings suggest that years of work experience, social support, and the effort-reward imbalance are factors influencing decent work among psychiatric nurses. By offering career development opportunities, fostering supportive work environments, and ensuring fair compensation, we can empower psychiatric nurses to navigate job challenges effectively and sustain a sense of decency in their work.

Keywords Right to work, Dignity, Work stress, Workload, Social support

*Correspondence:

Hong Luo

luohong@vip.126.com

¹Affiliated Mental Health Center & Hangzhou Seventh People's Hospital, Zhejiang University School of Medicine, Hangzhou 310007, Zhejiang, China

²Affiliated Hospital of Hangzhou Normal University, Hangzhou 310015, Zhejiang, China

³National Center for Mental Health, China, Beijing 100029, China

⁴Huzhou Third Municipal Hospital, Huzhou 313002, Zhejiang, China



© The Author(s) 2024. **Open Access** This article is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License, which permits any non-commercial use, sharing, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if you modified the licensed material. You do not have permission under this licence to share adapted material derived from this article or parts of it. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by-nc-nd/4.0/>.

Introduction

In recent years, with global economic and social development, people's expectations of their jobs have increased beyond basic survival. They are looking for more comfortable work environments, equitable compensation, comprehensive protection measures, and fair treatment [1]. However, in psychiatric nursing, these needs are often overlooked. Patients with psychiatric disorders often face challenges such as emotional instability, abnormal behavior, and other issues. Consequently, psychiatric nurses need to remain vigilant and patient in their roles [2]. Moreover, they must handle emergency situations, such as dealing with aggressive behavior and suicidal tendencies among patients, which can significantly strain their psychological resilience [3]. More importantly, psychiatric nurses often lack sufficient social support [4, 5]. Research indicates that there is a prevalent negative perception of psychiatric care among healthcare professionals [6, 7]. The combination of high-pressure environments and negative perceptions may result in psychiatric nurses feeling undervalued and unrecognized, subsequently affecting their job satisfaction and mental well-being. Therefore, addressing the perception of decent work among psychiatric nurses has become an urgent issue requiring attention.

In June 1999, Mr. Juan Somavia, the director-general of the International Labour Organization (ILO), introduced the concept of "decent work" for the first time at the 87th International Labour Conference. He defined it as productive work for everyone, ensuring conditions of freedom, equity, security and human dignity [8]. Duffy further explained decent work as including physically and interpersonally safe working conditions, access to health care, adequate compensation, hours that allow for free time and rest, and organizational values that complement family and social values [9]. Currently, the concept of decent work has gained significant attention across various sectors, including healthcare, serving as a guiding principle for promoting individual well-being. A wealth of international research indicates that psychiatric nursing is a demanding and highly stressful profession [10]. Psychiatric nurses provide care for patients with severe mental health issues such as depression, anxiety, bipolar disorders, and other disorders. Their responsibilities involve managing patients' emotional fluctuations, abnormal behaviors, and cognitive impairments amidst the potential threat of violence or physical harm. These complex working conditions may impact psychiatric nurses' perceptions of decent work. Moreover, past research has shown that decent work impacts individuals' physical and mental health and is associated with nurses' burnout and turnover intentions [11, 12]. Therefore, it is crucial for psychiatric nurses to perceive their work as decent.

Social support plays a crucial "buffering" and "protective" role in individuals' perceptions of decent work. Social support refers to the material or emotional assistance individuals perceive from sources such as family, friends, colleagues, partners, and associations [13]. Numerous studies and reviews have suggested that social support has a significant protective effect on nurses' occupational health [14]. The more social support individuals receive, the fewer psychological health issues they report [15]. Additionally, a study conducted among Chinese workers revealed a positive correlation between social support and decent work [16]. These studies emphasize the importance of social support in enhancing decent work. For psychiatric nurses, long-term care for mental health patients can lead to emotional exhaustion, trauma, incidents of aggression, anxiety, violence, depression, fatigue, and burnout [17]. Social support not only implies receiving care and assistance from colleagues and supervisors at work but also support from the community and family outside of work. This support can help psychiatric nurses feel more respected and acknowledged, thereby alleviating the difficulties they face.

In addition to social support, the experience of an imbalance between effort and reward may also significantly influence nurses' perceptions of decent work. Effort-reward imbalance refers to the disparity between the efforts made in the job (e.g., demands, obligations) and the rewards received (e.g., salary, recognition, job security) [18]. This imbalance can result in stress and long-term health issues, particularly among nurses working in psychiatric institutions who often need to invest additional emotional resources, such as dealing with challenging patient groups and facing trauma and violence from patients [19]. However, despite the significant emotional efforts exerted by psychiatric nurses, their income is relatively low [20, 21]. Therefore, the work pressure faced by psychiatric nurses may originate not only from the complexity and high demands of the job but also from economic constraints.

Psychological work theory (PWT) provides a framework for exploring factors influencing decent work. According to the PWT, decent work can enhance individuals' work fulfillment and well-being by meeting their survival, social connection, and self-determination needs [22]. Marginalization and economic constraints serve as antecedents affecting individuals' ability to obtain decent work, while social support plays a crucial moderating role [23]. Psychiatric nurses often face negative perceptions from society and other healthcare professionals, which may contribute to a lack of social support and financial pressure at work, thus influencing their perception of decent work [6, 24].

Although the importance of decent work has been widely discussed, research on its influencing factors

remains limited. Currently, various factors such as economic conditions, marginalization, work volition, career adaptability, workplace climate, and social support are considered key influencing factors and moderating variables [25]. For instance, some studies have indicated that social support moderates the prediction of subjective social status regarding work volition and decent work [16]. However, the importance of social support and effort-reward imbalance is still relatively underemphasized, particularly in psychiatric healthcare. Although there is existing research on decent work among registered nurses and migrant nurses [26, 27], research specifically focused on psychiatric nurses is distinctly lacking. Therefore, this study aimed to investigate the current status of decent work among psychiatric nurses and analyze its influencing factors, to provide a reference for the formulation of mental health nursing policies and promote fair and dignified working environments for psychiatric nurses.

Methods

Study design

This study employed a cross-sectional research design, and the research report followed the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) statement.

Participants

The research was conducted at a tertiary Grade A psychiatric hospital in Hangzhou, Zhejiang Province, China, in February 2024. A cluster sampling method was utilized, with nurses from the hospital as the study participants.

The sample size was determined using the G-Power 3.1.96 linear multiple regression algorithm. With an effect size of 0.15, an α value of 0.05, a regression coefficient of 0.05, and an anticipated power ($1 - \beta$) of 0.95, this study included 21 variables: 10 sociodemographic characteristics and 11 dimensions related to the scale. The minimum required sample size was calculated to be 226 nurses, considering a 20% rate of invalid questionnaires, a minimum of 249 nurses were needed to meet the minimum sample size requirement.

The inclusion criteria were as follows: (1) registered psychiatric nurses with more than one year of hospital experience and (2) voluntary participation with informed consent. The exclusion criteria included (1) nurses on leave, (2) interns or trainees, and (3) administrative or logistical nursing staff.

Questionnaires were distributed to 410 nurses meeting the inclusion criteria. Of these, 390 nurses responded, resulting in a response rate of 95.12%. However, 32 respondents provided irregular responses, such as repeating numbers (e.g., 12,121,212, 11,111,111). After excluding these irregular responses, a total of 358

questionnaires were considered valid, resulting in an effective response rate of 91.79%.

Instruments

Nurse demographic information

Demographic information included gender, age, educational background, psychiatric nursing experience, professional title, marital status, parenthood status, income, job category, and night shift schedules.

Effort-reward imbalance questionnaire (ERIQ)

This study employed a locally adapted Chinese version of the Effort-Reward Imbalance questionnaire to conduct an in-depth investigation into the effort-reward status among psychiatric nurses. Originating from Siegrist's research [28], the questionnaire was translated into traditional Chinese characters by scholar Cheng [29]. The simplified Chinese version was later translated by scholar Li, with its measurement reliability and validity widely recognized [30]. The questionnaire encompasses two core dimensions, "effort," and "reward," comprising a total of 17 items. Each item is rated on a Likert scale ranging from 1 to 5. The "effort" dimension has 6 items, with total scores ranging from 6 to 30. The "reward" dimension contains 11 items, with total scores ranging from 11 to 55. Referring to existing literature, we calculated the effort-reward ratio (ERR) to assess the imbalance between effort and reward. ERR is calculated as (effort score/reward score) \times (11 / 6), where 11 / 6 corrects for discrepancies caused by inconsistent entries on the scales [31]. The higher the ERR, the more serious the imbalance. In this study, the Cronbach's α coefficient for the effort and reward subscales were 0.799 and 0.861, respectively.

Social support rating scale (SSRS)

In this study, we used the Social Support Rating Scale to measure the social support status of psychiatric nurses. Developed by Chinese scholars [32], has been widely used in China and has demonstrated good reliability and validity. The scale comprises three dimensions: objective support (items 2, 6, and 7), subjective support (items 1, 3, 4, and 5), and support utilization (items 8, 9, and 10). Items 1–4 and 8–10 are scored on a 4-point Likert scale, with each item rated from 1 to 4. Item 5 is scored from A to D, with each option assigned a score from 1 to 4. Items 6 and 7 are scored as 0 if the response is "no source," while if there are multiple sources, each source is assigned a score. The Cronbach's α coefficient for this scale in our study was determined to be 0.852.

The decent work perception scale (DWPS)

This study used the Decent Work Perception Scale to assess the perception of decent work among psychiatric nurses. Developed by Chinese scholars, this scale

has been widely employed within the nursing community [33]. The scale comprises five dimensions—work rewards, work position, work atmosphere, work development, and work recognition—with a total of 16 items. Each item is rated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), resulting in a minimum score of 16 and a maximum score of 80. Higher scores indicate a stronger perception of decent work. In our study, the Cronbach's α coefficient for this scale was determined to be 0.946.

Data collection

The data collection for this study was conducted through electronic questionnaire surveys, with the research team disseminating electronic questionnaire links to nurses. The questionnaire comprised introductory instructions, demographic information, and variable scales. The introductory section emphasized the questionnaire's purpose, guiding principles for answering questions, voluntary participation, and instructions on attention and interpretation. Before the study began, the researchers conducted comprehensive training for the three surveyors, emphasizing the study's content, objectives, significance, and instructions for completing the questionnaire. Standardized promotional and introductory statements were provided to the surveyors. One researcher provided quality supervision during the data collection process. To mitigate social desirability bias, the research was conducted anonymously, with measures in place to ensure one submission per account, device, and IP address.

Data analysis

Data were analyzed using IBM SPSS 26.0. Descriptive statistics were employed to determine the demographic characteristics of the nurses and the mean values of the variables. Independent sample *t*-tests and one-way analysis of variance (ANOVA) were utilized to examine differences in demographic characteristics among variables. Pearson correlation analysis was conducted to assess the relationships between variables. Variables showing significant results in the independent sample *t* tests, ANOVA, and correlation analyses were further explored using stepwise regression analysis to identify influencing factors. A significance level of $p < 0.05$ was considered statistically significant.

Results

Participant characteristics

The average age of the psychiatric nurses surveyed in this study was 36.50 ± 8.33 years. Females dominated the sample, accounting for 91.6%, while there were significantly fewer males, accounting for 8.4%. The highest proportion of respondents reported a monthly income ranging from 5000 CNY to 9999 CNY (approximately 700 to 1400

USD), accounting for 56.4%. Regarding educational background, the majority (92.2%) held a bachelor's degree. Among the participants, 72.1% were married, and 69.6% reported having children. The most common range for psychiatric nursing experience was between 5 and 15 years, representing 57.8% of the respondents. The predominant professional title was registered nurse (52.1%). Most participants (66.2%) were permanently employed. Additionally, 43.6% reported having fewer than 5 night shifts per month. See Table 1. The scores for decent work among the samples are also provided in Table 1, indicating variations in decent work scores based on different psychiatric nursing experience, professional title, job category, and monthly night shift frequency. In addition, the scores and demographic differences in social support and effort-reward imbalance are shown in Table S1.

Descriptive statistics of the study variables

This study examined the scores of decent work, social support, and professional quality of life among psychiatric nurses. The mean score for decent work was 55.69 ± 10.42 . The mean score for social support was 41.37 ± 8.45 . The effort-reward imbalance ratio was 0.92 ± 0.26 (see Table 2).

Correlations

This study analyzed the relationships among decent work, social support, and effort-reward imbalance among psychiatric nurses. The results revealed that decent work was positively correlated with social support ($r = 0.360$, $p < 0.001$) while negatively correlated with effort-reward imbalance ($r = -0.584$, $p < 0.001$). Additionally, social support was negatively correlated with effort-reward imbalance ($r = -0.353$, $p < 0.001$). See Table 2.

Regression analyses

As shown in Table 3, multiple linear regression analyses were conducted with decent work scores as the dependent variable, and psychiatric nursing experience, professional title, job category, and monthly night shift frequency as predictor variables, along with social support and effort-reward imbalance scores as predictors. In Step 1, we evaluated the relationship between sociodemographic variables and decent work. We found that the variable "Psychiatric nursing experience" (<5 vs. >25 years) significantly influenced the perception of decent work ($\beta = -0.212$, $p = 0.025$), explaining 4.3% of the model's variance. After including the social support variable in Step 2, the explained variance of the model increased to 23.2%. Social support exhibited a significant positive impact on the perception of decent work ($\beta = 0.462$, $p < 0.001$). Furthermore, after including social support, the impact of 'Psychiatric nursing experience' remained significant but showed some changes. Specifically, those

Table 1 Sociodemographic characteristics of the sample ($N = 358$)

Demographics	n(%)	Decent Work		
		M ± SD	F/t	p
Gender^a			1.585	0.114
Male	30(8.4)	58.57 ± 9.66		
Female	328(91.6)	55.42 ± 10.46		
Income per Month(CNY)^b			0.154	0.927
< 5000	13(3.6)	56.08 ± 11.42		
5000–9999	202(56.4)	55.55 ± 10.66		
10,000–15,000	117(32.7)	56.09 ± 10.17		
> 15,000	26(7.3)	54.69 ± 9.54		
Educational Background^b			0.899	0.408
Short-cycle Courses	23(6.4)	52.87 ± 8.17		
Bachelor's degree	330(92.2)	55.80 ± 10.58		
Master's degree or above	5(1.4)	55.80 ± 7.56		
Marital status^b			1.286	0.278
Married	258(72.1)	55.17 ± 10.65		
Unmarried	89(24.9)	56.84 ± 9.85		
Others	11(3.1)	58.55 ± 8.88		
Parenthood status^a			1.714	0.087
Yes	109(30.4)	57.11 ± 10.54		
No	249(69.6)	55.06 ± 10.32		
Psychiatric nursing experience^b			5.143	0.002 ^c
< 5	68(8.8)	59.78 ± 8.33		
5~15	142(57.8)	55.42 ± 11.31		
16~25	94(21.0)	54.63 ± 10.50		
> 25	54(12.4)	43.70 ± 7.84		
Professional title^b			5.239	0.002 ^d
Registered nurses	30(3.2)	60.10 ± 8.32		
Senior nurse	116(52.1)	57.41 ± 10.28		
Supervisor nurses	158(37.4)	53.56 ± 10.29		
Cochief nurses or above	54(7.4)	55.76 ± 10.92		
Job category^a			-2.054	0.041*
Temporarily employed	267(66.2)	55.03 ± 10.10		
Permanently employed	91(33.8)	57.62 ± 11.13		
Monthly night shift frequency^b			3.250	0.040 ^e
< 5	156(43.6)	54.80 ± 10.36		
5~7	55(15.4)	58.89 ± 10.66		
> 7	147(41.1)	55.43 ± 10.23		

Note: * $p < 0.05$, ** $p < 0.001$; ^a Independent sample t-test; ^b One-way ANOVA test; ^c Post-hoc test: < 5 versus 5~15($p = 0.004$), < 5 versus 16~25 ($p = 0.002$), < 5 versus > 25 ($p < 0.001$); ^d Post-hoc test: registered nurses versus supervisor nurses($p = 0.001$), senior nurse versus supervisor nurses($p = 0.002$); ^e Post-hoc test: < 5 versus 5~7($p = 0.012$), 5~7 versus > 7($p = 0.035$)

Table 2 Correlation of decent work, social support, and effort-reward imbalance ($N = 358$)

Variables	Mean ± SD	Decent work	Social Support	Effort-Reward Imbalance
Decent work	55.69 ± 10.42	1		
Social Support	41.37 ± 8.45	0.360**	1	
Effort-Reward Imbalance	0.92 ± 0.26	-0.584**	-0.353**	1

Note: ** $p < 0.001$

with less than 5 years of work experience exhibited significantly lower perceptions of decent work compared to those with 5–15 years ($\beta = -0.241$, $p = 0.003$), 16–25 years ($\beta = -0.253$, $p = 0.007$), and more than 25 years ($\beta = -0.276$, $p < 0.001$). In Step 3, with the addition of the effort-reward imbalance variable, the explained variance of the model further increased to 40.2%. The effort-reward imbalance had a significant negative impact on the perception of decent work ($\beta = -0.458$, $p < 0.001$). Meanwhile, social support continued to have a positive impact on the perception of decent work ($\beta = 0.259$, $p < 0.001$). Even after including these two variables, the impact of having less than 5 years of work experience compared to 16–25 years ($\beta = -0.164$, $p = 0.046$) and more than 25 years ($\beta = -0.157$, $p = 0.040$) remained significant. The adjusted R-squared increased from 4.3% in Step 1 to 40.2% in Step 3, indicating that the predictors included in the model explained a substantial portion of the variance in the outcomes.

Mediation analysis

As shown in Fig. 1, the study findings indicate that ERI has a significant negative direct effect on both decent work ($\beta = -0.521$, $p < 0.001$) and social support ($\beta = -0.353$, $p < 0.001$). Social support positively affects decent work ($\beta = 0.176$, $p < 0.001$) and mediates the relationship between ERI and decent work ($\beta = -0.062$, Bootstrap 95% CI: -0.107, -0.023). Social support partially mediates the relationship between ERI and decent work, accounting for approximately 10.62% of the total effect (see Table 4).

Discussions

This study aimed to assess the current status of decent work among psychiatric nurses and explore its influencing factors. The correlation between decent work and social support was positive, while it was negative for effort-reward imbalance. The factors influencing the perception of decent work included psychiatric nursing experience, social support, and effort-reward imbalance.

The results of this study indicate that psychiatric nurses scored 55.69 ± 10.42 in terms of decent work, similar to the results of previous surveys conducted among

Table 3 Regression analysis results

Variables	step1			step2			step3					
	β	SE	t	p	β	SE	t	p	β	SE	t	p
Psychiatric nursing experience (< 5 vs. 5~15)	-0.146	1.925	-1.609	0.108	-0.241	1.738	-2.943	0.003*	-0.128	1.552	-1.757	0.080
Psychiatric nursing experience (< 5 vs. 16~25)	-0.170	2.426	-1.657	0.098	-0.253	2.183	-2.734	0.007*	-0.164	1.938	-2.002	0.046
Psychiatric nursing experience (< 5 vs. > 25)	-0.212	2.748	-2.244	0.025*	-0.276	2.469	-3.251	0.001**	-0.157	2.207	-2.063	0.040*
Professional title (Registered nurses vs. Senior nurse)	-0.018	2.436	-0.165	0.869	-0.088	2.188	-0.897	0.370	-0.076	1.931	-0.876	0.382
Professional title (Registered nurses vs. Supervisor nurses)	-0.139	2.920	-0.997	0.319	-0.256	2.628	-2.038	0.042	-0.215	2.321	-1.941	0.053
Professional title (Registered nurses vs. Cochief nurses or above)	-0.012	3.334	-0.105	0.917	-0.114	3.003	-1.101	0.272	-0.074	2.653	-0.811	0.418
Job category	-0.004	1.581	-0.063	0.949	-0.030	1.417	-0.505	0.614	-0.035	1.251	-0.668	0.504
Monthly night shift frequency (< 5 vs. 5~7)	0.049	1.910	0.738	0.461	0.035	1.711	0.593	0.554	0.027	1.51	0.521	0.603
Monthly night shift frequency (< 5 vs. > 7)	-0.088	1.602	-1.157	0.248	-0.008	1.446	-0.112	0.911	-0.02	1.276	-0.329	0.743
Social Support					0.462	0.061	9.318	< 0.001**	0.259	0.06	5.371	< 0.001**
Effort-Reward Imbalance									-0.458	1.868	-9.977	< 0.001**
R²		0.067				0.253				0.420		
Adjusted R²		0.043				0.232				0.402		

Note: SE: Standard error;

registered nurses in China [12]. Despite facing various challenges in psychiatric work, nurses receive systematic training in professional learning and practice, acquiring significant experience in handling issues related to mental health patients [34]. This professional competence enables them to better cope with work difficulties, thereby maintaining a perception of decent work. Furthermore, exposure to patients with mental and psychological issues may heighten psychiatric nurses' focus on self-protection and emotional management [7]. The ability for emotional management may also contribute to preserving their perception of decent work [35].

Furthermore, the results indicate that psychiatric nursing experience significantly influences the perception of decent work among psychiatric nurses. Overall, nurses with less than 5 years of work experience reported significantly higher perceptions of decent work compared to those with more than 25 years of experience. This finding is contrary to previous research [26]. This discrepancy may be because nurses with longer working experience might feel that their career development is limited or that promotion opportunities are insufficient, which could impact their perception of decent work [36].

The study findings also showed that social support significantly influences decent work. This finding aligns with previous surveys conducted among emerging adults in South Korea, emphasizing its crucial role in enhancing the perception of decent work [37]. Support from colleagues, supervisors, and the community can help nurses recognize their professional value and social contributions, thereby enhancing their perceived social status and professional recognition and fostering their perception of decent work [38]. Additionally, social support can provide emotional and practical assistance and encouragement to nurses, help alleviate work stress, enhance job satisfaction, alleviate burnout, and further enhance their perception of decent work [39]. Thus, establishing and strengthening social support networks is vital for enhancing the perception of decent work among psychiatric nurses.

Finally, this study revealed that effort-reward imbalance is another important factor influencing decent work among psychiatric nurses. Additionally, social support plays a mediating role between effort-reward imbalance and decent work. This is consistent with the principles of psychological work theory, which emphasize the critical role of the work environment and incentives in maintaining the dignity and decency of nurses [22]. In psychiatric nursing, where nurses often deal with a unique patient population, high emotional involvement in work is needed, making the balance between effort and reward particularly crucial. When nurses feel that their efforts are inadequately rewarded, such as receiving lower income or facing economic constraints, their

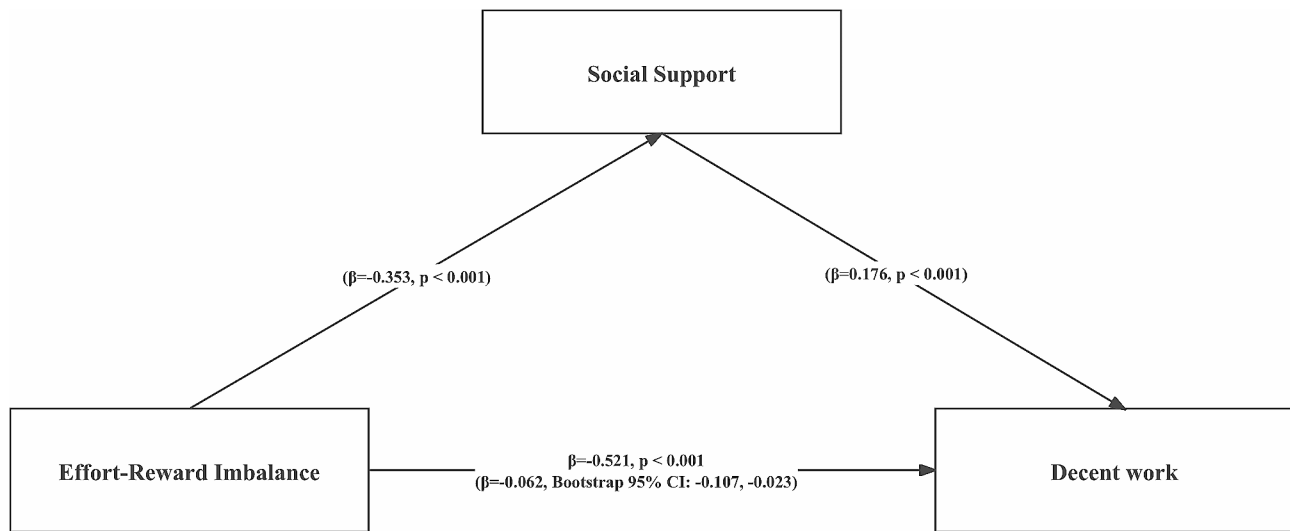


Fig. 1 The model of effort-reward imbalance, perception of decent work, and social support

Table 4 The impact of effort-reward imbalance on nurses’ perception of decent work: a mediation analysis of Social Support

Relationship	Effect	SE	t	p	LLCI	ULCI
Effort-Reward Imbalance→Social Support	-0.353	1.636	-7.110	<0.001	-14.848	-8.414
Effort-Reward Imbalance→Decent work	-0.521	1.835	-11.561	<0.001	-24.822	-17.604
Social Support→Decent work	0.176	0.056	3.907	<0.001	0.108	0.327
Total effect	-0.584	1.751	-13.558	<0.001	-27.212	-20.270
Relationship			Effect	BootSE	BootLLCI	BootULCI
Effort-Reward Imbalance → Social Support→Decent work			-0.062	0.021	-0.107	-0.023

Note: SE: Standard error

perception of decent work may decrease [23]. Notably, an imbalance between effort and reward may also lead to nurses experiencing negative emotions and psychological states, potentially resulting in feelings of unfairness and disrespect, which can affect their job performance and attitude [40]. However, the presence of social support can mitigate these negative effects. Social support from colleagues, supervisors, and the organization can provide emotional and practical assistance, helping nurses cope with stress and perceive their work environment more positively. These findings highlight the significant impact of effort-reward imbalance on decent work and underscore the importance of healthcare institutions and managers in providing social support, ensuring that nurses’ work experience and dignity are preserved.

This study holds significant importance in safeguarding the working rights of psychiatric nurses and underscores the importance of upholding their dignity in labor. First, healthcare institutions should provide adequate resources and support [41], such as increasing the number of nursing staff, fostering a positive work atmosphere, and offering necessary training and education. This will ensure that psychiatric nurses can perform their duties efficiently and safely. Furthermore, society should increase its attention and respect for psychiatric nurses,

reducing discrimination and biases toward the profession and its institutions [42]. This will help in create a more comfortable, safe, and dignified working environment for nurses. Second, incentive mechanisms are vital for maintaining decent work. Healthcare institutions should establish fair salary structures and reward systems, ensuring that nurses receive fair compensation for their hard work [36]. For instance, recognizing outstanding nurses, organizing skill competitions, and providing advancement opportunities can encourage professional development among nurses. These incentive mechanisms not only contribute to enhancing nurses’ job satisfaction and sense of dignity but also attract more talent to join the psychiatric nursing workforce, thereby enhancing the overall level of nursing care.

Limitations

Although this study has made significant discoveries, it also has some limitations. First, the investigation was conducted solely within a single healthcare institution and lacked diverse sample sources, which may limit the generalizability and applicability of the research findings. Second, the study used a cross-sectional survey design, which precludes the assessment of temporal changes and long-term trends, thereby precluding causal inferences.

Finally, despite measures such as anonymization being used to protect respondent privacy, the influence of social desirability bias cannot be entirely eliminated, posing a risk of information bias. Therefore, future research could consider employing multicenter, longitudinal, qualitative studies and further explore other potential influencing factors to enhance the credibility and applicability of the research conclusions.

Conclusion

In this study, we found that years of work experience, social support, and effort-reward imbalance are significant factors influencing the perception of decent work among psychiatric nurses. Long-term work experience contributes to improving nurses' perception of decent work. Effort-reward imbalance has a direct negative impact on decent work, while social support has a direct positive impact on decent work. Future research could use other research methods to explore additional potential influencing factors or develop targeted interventions based on this study's findings to enhance psychiatric nurses' perception of decent work.

Abbreviations

ANOVA	One-way analysis of variance
DWPS	The Decent Work Perception Scale
ERIQ	Effort-Reward Imbalance Questionnaire
ILO	International Labor Organization
PWT	Psychology of Working Theory
SPSS	Statistical Product and Service Solutions
SSRS	Social Support Rating Scale
STROBE	Strengthening the Reporting of Observational studies in Epidemiology

Supplementary Information

The online version contains supplementary material available at <https://doi.org/10.1186/s12888-024-05983-x>.

Supplementary Material 1

Acknowledgements

We sincerely thank all the nurses who participated. Additionally, we extend our gratitude to Professor Johannes Siegrist and Professor Jian Li for granting us permission to use the ERI questionnaire.

Author contributions

HL YF, and BX was the primary investigator of the study. BX and LW did a statistical analysis and wrote this paper. ZJ, HL, and YF helped conduct the study and revised the manuscript; LW, XW, and NZ helped supervised the survey and checked the data. All authors contributed to and approved the final manuscript.

Funding

None.

Data availability

The data that support the findings of this study are available from the corresponding author on reasonable request.

Declarations

Ethics approval and consent to participate

This study was approved by the Medical Ethics Committee of the Affiliated Mental Health Center & Hangzhou Seventh People's Hospital, Zhejiang University School of Medicine (Approval No. 2024-009) to ensure the full protection of participants' rights. The study has been conducted under the continuous supervision of the ethics committee. Prior to the commencement of the study, each participant has been informed about the purpose and nature of the research, emphasizing its anonymity and voluntary participation principle. Informed consent was obtained from all participants.

Consent for publication

No applicable.

Competing interests

The authors declare no competing interests.

Received: 7 April 2024 / Accepted: 24 July 2024

Published online: 31 July 2024

References

1. Wan W, Duffy RD. Decent work and turnover intentions among Chinese millennials: a longitudinal study. *J Career Dev.* 2023;50(4):933–46.
2. Maddineshat M, Khodaveisi M, Kamyari N, Razavi M, Pourmoradi F, Sadeghian E. Exploring the safe environment provided by nurses in inpatient psychiatric wards: a mixed-methods study. *J Psychiatr Ment Health Nurs.* 2024;31(2):257–69.
3. Chou H-J, Tseng K-Y. The experience of emergency nurses caring for patients with mental illness: a qualitative study. *Int J Environ Res Public Health.* 2020;17(22):8540.
4. Qi Y-K, Xiang Y-T, An F-R, Wang J, Zeng J-Y, Ungvari GS, Newhouse R, Yu DSF, Lai KYC, Ding Y-M, et al. Nurses' work-related stress in China: a comparison between psychiatric and general hospitals. *Perspect Psychiatr Care.* 2014;50(1):27–32.
5. Jingyu Su LZ, Lijun, Tu. Survey and analysis on occupational stress and effect of psychiatric nurses. *Chin Nurs Res.* 2014;28(10):1009–6493.
6. Gaebel W, Zäske H, Zielasek J, Cleveland H-R, Samjeske K, Stuart H, Arboleda-Florez J, Akiyama T, Baumann AE, Gureje O, et al. Stigmatization of psychiatrists and general practitioners: results of an international survey. *Eur Arch Psychiatry Clin Neurosci.* 2015;265(3):189–97.
7. Sukut O, Sahin-Bayindir G, Ayhan-Balik CH, Albal E. Professional quality of life and psychological resilience among psychiatric nurses. *Perspect Psychiatr Care.* 2022;58(1):330–8.
8. Somavia J, General I. Decent work. In: *Report of the Director-General to the 87th Session of the International Labour Conference(Geneva: ILO): 1999; 1999.*
9. Duffy RD, Allan BA, England JW, Blustein DL, Autin KL, Douglass RP, Ferreira J, Santos EJR. The development and initial validation of the decent work scale. *J Couns Psychol.* 2017;64(2):206–21.
10. Opoku Agyemang S, Ninnoni JP, Enyan NIE. Prevalence and determinants of depression, anxiety and stress among psychiatric nurses in Ghana: a cross-sectional study. *BMC Nurs.* 2022;21(1):179.
11. Sönmez B, Yıldız Keskin A, İspir Demir Ö, Emirlioğlu R, Güngör S. Decent work in nursing: relationship between nursing work environment, job satisfaction, and physical and mental health. *Int Nurs Rev.* 2023;70(1):78–88.
12. Xue B, Feng Y, Hu Z, Chen Y, Zhao Y, Li X, Yang Y, Zhang J, Zhang Y, Luo H. Assessing the mediation pathways: how decent work affects turnover intention through job satisfaction and burnout in nursing. *Int Nurs Rev.* 2024.
13. Xiao Y, Zhang H, Li Q, Xiao S, Dai T, Guo J, Yu Y. Role stress and psychological distress among Chinese nurses during the COVID-19 pandemic: a moderated mediation model of social support and burnout. *Front Psychiatry.* 2022;13:812929.
14. Velando-Soriano A, Ortega-Campos E, Gómez-Urquiza JL, Ramírez-Baena L, De La Fuente El. Cañadas-De La Fuente GA: impact of social support in preventing burnout syndrome in nurses: a systematic review. *Japan J Nurs Sci.* 2020;17(1):e12269.
15. Harandi TF, Taghinasab MM, Nayeri TD. The correlation of social support with mental health: a meta-analysis. *Electron Physician.* 2017;9(9):5212–22.

16. Wang D, Jia Y, Hou Z-J, Xu H, Zhang H, Guo X-L. A test of psychology of working theory among Chinese urban workers: examining predictors and outcomes of decent work. *J Vocat Behav*. 2019;115:103325.
17. Fahy G, Moran L. Who supports the psychiatric nurse? A qualitative study of the social supports that affect how psychiatric nurses cope with workplace risks and stressors. *Ir J Sociol*. 2018;26(3):244–66.
18. Siegrist J. Adverse health effects of high-effort/low-reward conditions. *J Occup Health Psychol*. 1996;1(1):27–41.
19. SCHULZ M, DAMKRÖGER A, HEINS C, WEHLITZ L, LÖHR M, DRIESSEN M, BEHRENS J, WINGENFELD K. Effort–reward imbalance and burnout among German nurses in medical compared with psychiatric hospital settings. *J Psychiatr Ment Health Nurs*. 2009;16(3):225–33.
20. Jiang F, Zhou H, Rakofsky J, Hu L, Liu T, Wu S, Liu H, Liu Y, Tang Y. Intention to leave and associated factors among psychiatric nurses in China: a nationwide cross-sectional study. *Int J Nurs Stud*. 2019;94:159–65.
21. Holmberg C, Sobis I, Carlström E. Job satisfaction among Swedish mental health nursing staff: a cross-sectional survey. *Int J Public Adm*. 2016;39(6):429–36.
22. Duffy RD, Blustein DL, Diemer MA, Autin KL. The psychology of working theory. *J Couns Psychol*. 2016;63(2):127–48.
23. Duffy RD, Kim HJ, Allan BA, Prieto CG. Predictors of decent work across time: testing propositions from psychology of working theory. *J Vocat Behav*. 2020;123:103507.
24. Martin K, Ricciardelli R, Dror I. How forensic mental health nurses' perspectives of their patients can bias healthcare: a qualitative review of nursing documentation. *J Clin Nurs*. 2020;29(13–14):2482–94.
25. Nourafkan NJ, Tanova C. Employee perceptions of decent work: a systematic literature review of quantitative studies. *Curr Psychol*. 2023;42(34):29772–800.
26. BowenXue, Feng Y, Zhao Y, Li X, Yang Y, Zhang J, Zhang Y, Hu Z, Luo H. Decent work, work engagement, and turnover intention among registered nurses: a cross-sectional study. *BMC Nurs*. 2024;23(1):31.
27. Shaffer FA, Álvarez TD, Stievano A. Guaranteeing dignity and decent work for migrant nurses and health care workers beyond the COVID-19 pandemic. *J Nurs Adm Manag*. 2022;30(8):3918–21.
28. Siegrist J, Starke D, Chandola T, Godin I, Marmot M, Niedhammer I, Peter R. The measurement of effort–reward imbalance at work: European comparisons. *Soc Sci Med*. 2004;58(8):1483–99.
29. Tseng H. Reliability and validity of the Chinese demand-control-support model and effort-reward imbalance model questionnaires: a study among employees of microelectronics industry. *Taiwan J Public Health*. 2002;21:420.
30. Li J, Yang W, Cheng Y, Siegrist J, Cho S-I. Effort–reward imbalance at work and job dissatisfaction in Chinese healthcare workers: a validation study. *Int Arch Occup Environ Health*. 2005;78(3):198–204.
31. Tian M, Yang H, Yin X, Wu Y, Zhang G, Lv C, Mu K, Gong Y. Evaluating effort-reward imbalance among nurses in emergency departments: a cross-sectional study in China. *BMC Psychiatry*. 2021;21(1):353.
32. Xiao S. Theoretical basis and research application of social support rating scale. *J Clin Psychiatry* vol. 1994;4:98.
33. Mao G, Liu W, Song H. Perceived decent work: scale development and validation. *Stat Decis*. 2014;30(14):86–9.
34. Garzonis K, Mann E, Wyrzykowska A, Kanellakis P. Improving patient outcomes: effectively training healthcare staff in psychological practice skills: a mixed systematic literature review. *Eur J Psychol*. 2015;11(3):535–56.
35. Grandey AA, Rupp D, Brice WN. Emotional labor threatens decent work: a proposal to eradicate emotional display rules. *J Organizational Behav*. 2015;36(6):770–85.
36. Roth C, Wensing M, Breckner A, Mahler C, Krug K, Berger S. Keeping nurses in nursing: a qualitative study of German nurses' perceptions of push and pull factors to leave or stay in the profession. *BMC Nurs*. 2022;21(1):48.
37. Song JY, Lee K-H. Influence of economic and academic barriers on perception of future decent work: a moderated mediation model of work volition and social support. *J Vocat Behav*. 2023;141:103842.
38. Zhan T, Li H, Ding X. Can social support enhance sense of coherence and perceived professional benefits among Chinese registered nurses? A mediation model. *J Nurs Manag*. 2020;28(3):488–94.
39. Wu F, Ren Z, Wang Q, He M, Xiong W, Ma G, Fan X, Guo X, Liu H, Zhang X. The relationship between job stress and job burnout: the mediating effects of perceived social support and job satisfaction. *Psychol Health Med*. 2021;26(2):204–11.
40. Tammasse IFU, Rivai F, Zulkifli A, Noor NB, Pasinringi SA. Effects of effort-reward imbalance (Eri) on the job satisfaction and work performance among healthcare workers of maternal and children regional hospital of South Sulawesi in 2022. *J Posit School Psychol*. 2022;6(8):89–98.
41. Delgado D, Wyss Quintana F, Perez G, Sosa Liprandi A, Ponte-Negretti C, Mendoza I, Baranchuk A. Personal safety during the COVID-19 pandemic: realities and perspectives of healthcare workers in Latin America. *Int J Environ Res Public Health*. 2020;17(8):2798.
42. Sartorius N, Gaebel W, Cleveland HR, Stuart H, Akiyama T, Arboleda-Flórez J, Baumann AE, Gureje O, Jorge MR, Kastrup M, et al. WPA guidance on how to combat stigmatization of psychiatry and psychiatrists. *World Psychiatry*. 2010;9(3):131–44.

Publisher's Note

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.