

PRESENTEEISM – A COMMON PHENOMENON IN THE STUDY POPULATION OF NURSES

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ABSTRACT

Introduction: Presenteeism is defined as an employee's attending work despite illness. The phenomenon has become more widespread in the health protection sector, especially among nurses. In addition, the researchers emphasize that this phenomenon has a huge impact on the economic burden resulting from the employee's presence at work despite their illness, and it contributes to an increase in the number of medical errors. It seems justified to highlight the problem and define the factors determining such an attitude among nurses.

The aim of the study was to indicate the predictors of operating room nurses' presence at work despite disease symptoms and classification of the symptoms. In addition, the attitudes of people who come to work ill were compared with those who stay at home during illness, to observe the differences.

Material and methods: The study was carried out in 2021 and covered 900 working nurses taking the state examination in operating room nursing. A total of 861 surveys were analysed. The study authors used an original questionnaire about ill employees coming to work (being on duty) and the most common symptoms accompanying work when ill.

Results: There were many factors that contributed statistically significantly to the attitude of presenteeism; they included the sense of responsibility towards workmates ($p = 0.000$, $\chi^2 = 16.86$) and the employer ($p = 0.000$, $\chi^2 = 14.49$) or concerns about stable employment ($p = 0.016$, $\chi^2 = 5.89$). A lack of statistical significance for the sense of responsibility towards the patient was an interesting observation. Moreover, the respondents were aware that coming to work when ill affects the quality of work and contributes to a higher risk of committing an error.

Conclusions: Even though presenteeism is deeply rooted in a nurse's job culture, the nursing staff, employers, and decision-makers in the health protection sector should be aware of its negative consequences.

Key words: presenteeism, nurses, quality of care, productivity loss.

INTRODUCTION

The literature does not offer a unique definition of presenteeism. However, typically it refers to a situation in which an employee comes to work despite being ill or not in a sound physical condition [1].

Over a decade ago, European Labour Market Research carried out in 34 countries revealed that nearly half of the respondents worked at least one day a year whilst being ill, and every third person declared presence at work despite illness for at least 2 days a year [2].

An increasing number of scientists and economists indicate a growing scale of the problem, which entails much higher costs than the employee's absence [1].

A nursing job is characterised by high burden, working shifts, working overtime, stress at work

(caused by patients and/or their families or by workmates and employers), and often being on duty for 24 hours. It is quite common for this group of professionals to work for several institutions, which means going to another job after ending their duty in the previous one. Such conditions cause irregular sleep, fatigue, and weakness, making nurses more prone to infections (e.g. the common cold) [3-5].

The phenomenon has been observed for decades in many countries. At the beginning of this millennium, Aronsson *et al.* [6] demonstrated that presenteeism applied to nearly half of Swedish nurses working in hospitals. Dutch researchers obtained similar results: half of the respondents reported going to work despite being ill [7]. In the United States of America [8] and Canada [9], the scientists investigating presenteeism demonstrated that over half of nurses and

doctors came to work despite apparent symptoms of disease [8, 9].

Because of many adverse physical and mental health effects on an individual and their work efficiency and quality, presenteeism is a phenomenon commonly investigated in contemporary scientific literature. Studies revealed that presenteeism not only hampers the ill person's recovery but also increases the risk of health condition deterioration. Moreover, the phenomenon is associated with reduced job satisfaction, low efficiency at work, a higher risk of committing an error at work, and a high risk of burnout [5, 10, 11].

Considering the widespread phenomenon of presenteeism among nurses, the study aimed to indicate why nurses come to work despite having disease symptoms. Moreover, the study authors attempted to classify the most common disease symptoms that employees came to work with. Moreover, to identify the differences, the attitudes were compared of the people coming to work despite having a disease with those who stayed at home whilst ill.

MATERIAL AND METHODS

Design and participants

The population of the cross-sectional survey study included 900 working nurses from Poland. The study rendered 828 questionnaires, 21 of which were incomplete, and 126 did not meet the inclusion criterion of working in an operating theatre. Finally, 681 questionnaires were qualified for further analysis.

The characteristics of the study group are summarised in Table 1.

Ethical considerations

Participation in the study was voluntary and anonymous. The study tool was made available to the respondents in paper form before they took the state examination. The authors sought advice from the Bioethics Committee of the Medical University of Warsaw to conduct the presented study. Because the "commission does not issue opinions on surveys, retrospective and other non-invasive scientific studies", approval was not required. The data owners expressed their permission to use the data [12].

Instruments

The study used an original questionnaire containing questions about coming to work when ill and the most common symptoms experienced when working while unwell.

The questionnaire consisted of 7 demographic questions concerning the current job (type of employment, position), education, age, and gender.

Table 1. Characteristics of the study group ($N = 681$)

Parameter	<i>n</i> (%)
Gender	
Female	602 (88.40)
Male	79 (11.60)
Age (years)	
21-25	12 (1.76)
26-35	383 (56.24)
36-45	131 (19.24)
46-55	147 (21.59)
> 55	8 (1.17)
Education	
Medical secondary school/nursing school	67 (9.84)
BA studies	153 (22.47)
MA studies	459 (67.40)
PhD studies	2 (0.29)
Job seniority	
< 5 years	172 (25.26)
5-10 years	226 (33.19)
11-20 years	120 (17.62)
21-30 years	126 (18.50)
> 30 years	37 (5.48)
Number of jobs	
1	566 (83.11)
2	104 (15.27)
3	11 (1.62)
Type of employment	
Employment contract/mandate agreement	535 (78.56)
Employment contract and private practice	59 (8.66)
Private practice	87 (12.78)

Additionally, the questionnaire included a question used as a criterion for grouping the study participants. The group whose members answered "yes" to the question "Do you come to work when ill?" was identified as presenteeism. The group who answered "no" to the question above was classified as absenteeism. Finally, the study participants were divided into 2 groups: presenteeism ($n = 336$) and absenteeism ($n = 345$).

The last part of the questionnaire consisted of 15 questions on the nurses' attitude to their health in the context of work as well as their attitude to workmates who come to work despite apparent disease symptoms.

Data analysis

The qualitative variables were compared with the χ^2 test. A log-linear analysis used ordinal variables concerning demographic data (age, education, and gender), attitude to presence and absence

at work of ill workmates and superiors, and the impact of disease on the work done (possibility of making a mistake and the impact on the quality of the work); the analysis did not include job seniority, the number of jobs, or type of employment. To examine dependence of coming to work when ill on demographic variables and the employers' and workmates' opinion on being present or absent at work during illness, method logistic regression (odds ratio) was used.

All statistical calculations were performed using the Statistica 13.3 statistical package. $P < 0.05$ was considered statistically significant.

RESULTS

Infections, backache, joint pain, fatigue, and rhinitis contributed statistically significantly to absence from work, regardless of the demonstrated attitude

– presenteeism or absenteeism. The details are summarised in Table 2.

Table 3 shows the impact of disease on the work done, according to the respondents. The respondents' perception of the consequences of coming to work ill in the aspect of becoming tired faster and reduced quality of professional life was statistically significant.

A results analysis revealed statistically significant differences in both groups regarding opinions about the reasons for coming to work when ill. The statements on the attitudes towards the employer and workmates in the context of the sense of responsibility were statistically significant. The statistically significant factors in both groups that contributed to presenteeism included a lack of substitution, the sense of responsibility towards workmates and employers, concern whether the workmates would manage during the person's absence, and concerns

Table 2. Relationship between a health problem and presenteeism or absenteeism

Health problem	Health problems causing absenteeism (N = 681)			Health problems despite which nurses come to work (N = 681)		
	Presenteeism (n = 336) n (%)	Absenteeism (n = 345) n (%)	p χ^2	Presenteeism (n = 336) n (%)	Absenteeism (n = 345) n (%)	p χ^2
Infections	253 (75.30)	275 (79.71)	0.168 1.90	129 (38.39)	8 (2.3)	0.000 137.83
Backache, joint pain	59 (17.55)	54 (15.62)	0.504 1.90	198 (58.93)	174 (50.43)	0.026 4.95
Migraine	30 (8.93)	30 (8.70)	0.836 0.04	270 (80.36)	285 (82.61)	0.449 0.57
Depression	16 (4.76)	4 (1.16)	–	24 (7.14)	19 (5.51)	0.380 0.77
Allergy	6 (1.78)	6 (1.73)	–	55 (16.37)	57 (16.52)	0.957 0.01
Fatigue	–	–	–	172 (51.19)	205 (59.42)	0.031 4.66
Rhinitis	1 (0.30)	–	–	178 (52.98)	55 (15.94)	0.031 4.66

Table 3. Different perception of the impact of disease on the work done, according to groups*

Consequences of working when ill	n (%)	Presenteeism (n = 336) n (%)	Absenteeism (n = 345) n (%)	p χ^2
Becoming tired faster	462 (67.84)	253 (75.30)	209 (60.58)	< 0.001 1.37
Reduced work performance	313 (45.96)	145 (43.15)	168 (48.70)	0.147 2.10
Lack of concentration	296 (43.47)	144 (42.86)	152 (44.06)	0.752 0.10
Higher likelihood of committing an error	177 (25.99)	77 (22.92)	100 (28.99)	0.071 3.26
Reduced quality of professional life	97 (14.24)	57 (16.96)	40 (11.59)	0.045 4.01

*Multiple-choice questions

about stable employment. A lack of statistical significance for the sense of responsibility towards the patient is interesting from the researchers' point of view. Details are summarised in Table 4.

A log-linear analysis of demographic data revealed a relationship between coming to work when ill and the respondents' age. Moreover, a cause-and-effect relationship was observed between coming to work during disease and the workmates' and employer's attitude to presence at work despite illness and the workmates' attitude to absence from work during disease. The analysis demonstrated that coming to work during a disease was related to the opinion that disease affects work quality. Details are summarised in Table 5.

The respondents' age did not turn out to be a significant factor for presenteeism. Workmates statistically significantly less frequently had a negative opinion about being present at work during illness (OR = 0.46, 95% CI: 0.32-0.67, $p = 0.000$) and were statistically significantly more likely to react negatively to being absent from work during illness (OR = 1.76, 95% CI: 1.24-2.51, $p = 0.002$). In the opinion of nurses who come to work when ill, the employer was statistically significantly rarely dissatisfied (OR = 0.35, 95% CI: 0.22-0.56, $p = 0.000$) and sent them to see a doctor (OR = 0.36, 95% CI: 0.22-0.57, $p = 0.000$). Details are summarised in Table 6.

DISCUSSION

Despite difficulty in establishing its unique definition, presenteeism has become widespread among working nurses. The authors' original study revealed that nurses who declared not coming to work during illness at the same time reported coming to work during infections ($n = 8$, 2.3%) or with backache and joint pain ($n = 174$, 50.43%). Moreover, a statistically significant difference was observed between the presenteeism and absenteeism groups for coming to work tired (presenteeism: $n = 172$, 51% vs. absenteeism: $n = 205$, 59%, $p = 0.031$).

Our own studies revealed no relationship between gender, job seniority, and education and the attitude to coming to work when ill. The only statistical significance was observed in the group of subjects aged 46-55 years, who tended not to go to work dur-

ing disease (OR = 0.54, 95% CI: 0.32-0.67). Mosteiro-Díaz *et al.* obtained different results in their study and noticed that presenteeism depends on job seniority (the shorter the job seniority, the lower the presenteeism index) [13]. A study by Gustafsson *et al.* revealed that age was a significant predictor of coming to work when ill [14].

The results of our own studies revealed that such health problems as infections, backache, joint pain, and migraine resulted in absence from work in both the presenteeism and absenteeism groups. Similar results were obtained by Skela-Savič *et al.*, who noticed that lower back pain did not contribute to absence from work [15]. Additionally, Rainbow demonstrated that the nurses participating in her study prioritised the needs of their workmates and the departments

Table 4. Reasons for coming to work when ill, according to nursing staff

Reason	Presenteeism ($n = 336$) n (%)	Absenteeism ($n = 345$) n (%)	p χ^2
Lack of substitution	199 (59.23)	158 (45.80)	0.000 12.31
Sense of responsibility towards the workmates	164 (48.81)	115 (33.33)	0.000 16.86
Sense of responsibility towards the employer	100 (29.76)	60 (17.39)	0.000 14.49
Concern that the workmates will not manage without me	83 (24.70)	38 (11.02)	0.000 21.83
Sense of responsibility towards the patient	74 (22.02)	81 (23.48)	0.651 0.20
Economic reasons	68 (20.24)	54 (15.65)	0.651 0.20
Employment uncertainty	23 (6.85)	10 (2.90)	0.016 5.89
Reluctance to stay at home	4 (1.19)	2 (0.58)	–
Fear of being made redundant	1 (0.29)	0	–

Table 5. Relationship between coming to work when ill and other variables

Description of the model	Variables*	G2	df	p
Demographic data	12, 23, 24, 34	28.299	47	0.986
Workmates' and employer's attitude to presence at and absence from work during illness	13, 16, 56, 17, 57, 78, 48	210.528	310	0.999
Impact of the disease on the work done	19, 9, 10	11.546	16	0.774

*1. Coming to work when ill, 2. Age, 3. Gender, 4. Education, 5. Workmates' attitude to presence at work despite disease, 6. Workmates' attitude to absence from work because of illness, 7. Superior's attitude to presence at work having disease symptoms, 8. Superior's attitude to absence from work because of disease, 9. Opinion that disease affects the quality of the work done, 10. Making an error at work because of disease

Table 6. Dependence of coming to work when ill on demographic variables and the employer's and workmates' opinion on being present and absent at work during illness

	OR	95% CI	p
Model 1 – respondents' age			
21-25	0.51	0.15-1.77	0.279
26-35	1.25	0.84-1.85	0.277
36-45	control		
46-55	0.54	0.33-0.87	0.012
> 55	low numbers		
Model 2 – workmates' opinion to presence at work during illness			
Positive	0.95	0.63-1.42	0.791
No opinion revealed	control		
Negative	0.46	0.32-0.67	0.000
Model 3 – workmates' opinion to absence from work during illness			
Positive	0.64	0.43-0.97	0.033
No opinion revealed	control		
Negative	1.76	1.24-2.51	0.002
Model 4 – employer's opinion to presence at work during illness			
Sees nothing wrong with it	control		
Notices, no response	1.01	0.68-1.49	0.920
Notices, sends to a doctor	0.36	0.22-0.57	0.000
Is dissatisfied	0.35	0.22-0.56	0.000

they worked for over their own health. The study revealed that, according to the respondents, such health conditions as migraine and fatigue did not require sick leave or not coming to work [16]. Migraines were mentioned in the context of presenteeism in a study by Fiorini *et al.*, in which the authors demonstrated that migraines were more common in the presenteeism group than in the absenteeism group [17].

Banks and Pearson in their study mentioned the issue of working shifts and its impact on presenteeism. In their study population, they observed that working in shifts was conducive to absenteeism [18]. Because the study was carried out only on subjects who worked shifts, it was impossible to conduct a comparative analysis.

Every fourth respondent in this study indicated that disease might increase the risk of committing a medical error, and nearly half of the respondents claimed that disease reduced their work performance and contributed to a lack of focus when performing different activities. Fiorini *et al.* reached similar conclusions in their study [19]. They revealed that nurses claimed reduced efficiency at work due to disease. Rainbow demonstrated that the studied nurses men-

tioned a higher number of medical errors (e.g. administering incorrect medication) and errors in medical records resulting from presenteeism. Moreover, the group studied by Rainbow indicated that despite illness and poor physical and mental condition, it is better to be at work rather than not [16].

Over half of the respondents indicated a lack of substitution as the cause of presenteeism, and nearly half mentioned a sense of responsibility towards their workmates. Furthermore, almost a quarter of the respondents mentioned a sense of responsibility towards their employers. Rainbow demonstrated that the studied nurses mentioned a lack of substitution as the reason for coming to work despite having a fever. At the same time, the study respondents pointed out that due to presenteeism caused by a lack of substitution, they constantly had to take medications while on duty to do their work [16].

LIMITATIONS

There are some limitations to this study. First, the study was conducted during an examination session, and thus high stress among the participants could have influenced the quality of their responses. Another limitation was the low number of males included, which precluded gender comparison.

CONCLUSIONS

Presenteeism is a phenomenon quite firmly anchored in a nursing job. It entails many consequences for the employee who comes to work ill (the risk of developing more severe disease, reduced concentration, and chronic fatigue) and for the employer who accepts such a status quo (higher risk of medical errors and mistakes in medical records). The current situation in the labour market (shortage of nurses) aggravates the phenomenon, and many nurses come to work when ill because they feel responsible for their workmates and employers. Although presenteeism is common and widespread, the health protection sector professionals, employers, and decision-makers should remember its negative consequences on the life and health of the staff and patients taken care of by ill staff members.

Disclosure

The authors declare no conflict of interest.

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