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Psychometric properties of the Hospital Ethical Climate Survey: a cross-sectional study in a large sample of Belgian psychiatric nurses

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Abstract

Rational, aims and objectives: The complex situation of care giving during the nursing and accompaniment of psychiatric patients often results in ethical problems and dilemmas for the caregivers involved. The ethical climate on a ward is crucial for addressing these problems and dilemmas. To date, there has been no instrument for assessing the ethical climate on a psychiatric ward. The present study is the first study of ethical climate in a psychiatric hospital. It was investigated whether the only existing instrument that measures the ethical climate in general hospitals, the 'Hospital Ethical Climate Survey', is a reliable and valid instrument for measuring the ethical climate on psychiatric wards.
Method: A cross-sectional study was performed in a large psychiatric inpatient setting in Belgium. All 320 nurses were invited to participate, 265 of them completed the survey, giving a response rate of 83%. The factor structure of the HECS was examined through explorative Principal Component Analysis (PCA) and Confirmatory Factor Analysis (CFA) and the reliability of the constructed scale and subscales were investigated.
Results: Five factors were identified, which were largely identical compared to the factor structure obtained with the original instrument and its underlying theoretical basis. Items related to different allied healthcare professions were added, which expanded the subscale 'relationship with physician' to 'relationship with other disciplines' (medical and allied healthcare workers).
Conclusion: The reliability of the instrument was good and comparable with reliability scores from earlier research. The investigated setting has a significantly higher main score for ethical climate, compared to previous studies.

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Introduction

Problem identification

The complex situation of care giving during the nursing and accompaniment of psychiatric patients often results in ethical problems and dilemmas for the caregivers involved [1,2]. Such problems not only encompass daily situations such as too little privacy, medication compliance or aspects of hygene, but also more complex problems such as forced hospitalizations or questions about euthanasia [3].

Notwithstanding the high prevalence of these ethical aspects of care and the difficulties in dealing with these problems, very limited research has been published on the ethical climate context in which nurses work. This work context can facilitate, but also complicate, the discussion of such problems, implicating that further in-depth

research into the ethical climate could provide useful information in the assessment of these problems.

Definitions

The concept 'ethical climate' has been defined as 'the organisational conditions and practices that affect the way difficult patient problems, with ethical implications, are discussed and decided' [4,5]. The ethical climate is a substantial part of the organizational context in which nurses work.

The concept 'ethical climate' is based on 2 theoretical models, the model of Schneider and that of Brown. The theory of Schneider describes the organizational climate as 'the individual perceptions of the employees about the organisation, that affect their attitude and behaviour and serve as a reference for themselves' [6]. In the other theory, Brown lists 5 core conditions that need to be fulfilled to allow or facilitate the engagement of employees in ethical reflections: power (the right to information and to speak their mind), trust (to be free to disagree), inclusion (relevant groups are involved in decisions), role flexibility (different viewpoints are allowed) and inquiry (questioning and debate are encouraged) [7].

Both models form the base of the Hospital Ethical Climate Survey (HECS), a questionnaire developed by Olson in the USA [8]. This questionnaire encompasses 5 factors: the relation of the nurse with 1) physicians, 2) managers, 3) peers, 4) patients and 5) hospital. The relation with physicians mainly concerns respect for and confidence in the physician and also the involvement in treatment-related decisions. The dimension of relation with the manager not only encompasses respect and confidence, but also support as an additional, important item. The relation with peers refers to support and the possibility to rely on your colleagues in difficult situations. The patient-nurse relation encompasses the providing of information and having respect for the patient's wishes. Finally, the relation with the hospital relates to support via means of the hospital's mission as well as the available protocols and guidelines.

Previous research

The concept of ethical climate has already been investigated in various general hospitals [5,8,9]. However, to date, it has not been examined in a psychiatric inpatient setting. In previous research, the HECS instrument has demonstrated that the presence of a positive ethical climate is an important support for the nursing teams in their essential ethical care giving tasks [9]. Lower scores on ethical climate have been reported to be linked with higher scores of ethical stress, that is, feeling powerless and overwhelmed during daily nursing practice. A supportive ethical climate also shows a positive relation with job satisfaction and a negative relation with intent-to-leave of the nurses, as shown in previous research in general hospitals [5,9].

Goals

In the current research project, we first investigated the reliability and validity of the HECS as an instrument to study the ethical climate in a cohort of nurses working in a psychiatric inpatient setting, with the results of the 5 dimensions presented separately. As far as we are aware, these 2 research questions have not been previously addressed.

Applying principal component analysis (PCA) and confirmatory factor analysis (CFA), the factor structure of the HECS in this cohort was investigated. Subsequently, the language-, content- and convergent validity was assessed. Reliability of the obtained scale and subscales was studied. The perception of nurses about the ethical climate will be described and compared to available research in other settings.

Methods

Design

This study is part of a broader research project investigating the relation between ethical climate and job satisfaction in a large sample of nurses working in a psychiatric hospital. In the current study, a cross-sectional, correlational design was used. The study was approved by the ethical committee of the psychiatric hospital 'Sint-Norbertushuis' at Duffel, a large psychiatric inpatient setting in Flanders, Belgium, with a capacity of 600 patients.

During the period from June 1st to July 8th 2009, all 320 nursing caregivers received an anonymous questionnaire. The research project was presented on all 24 wards with education on 'what are ethics' and what implicates 'daily ethical practice for the nurse'. Participants were also reassured that all information would be treated confidentially and anonymously. Participation was voluntary and returning the questionnaire was viewed as consent to participate.

During the project, the head nurses were contacted 3 times for evaluational and motivational purposes and each department was also visited twice and received 2 new invitation letters. In order to optimize the response rate, additional communication channels were used within the hospital to provide further background information and present calls for participation.

Measurements

The HECS contains 26 questions subdivided into the previously mentioned 5 dimensions: the relation between the nurse and 1) physicians, 2) managers (head nurses), 3) peers (colleagues), 4) patients and 5) hospital [8]. Each item is scored on a 5-point scale of the Likert type from 1 ('almost never true') to 5 ('almost always true'). Examples of items in the questionnaire are respectively: 1) 'nurses and physicians trust one another', 2) 'my manager supports

me in my decisions about patient care', 3) 'my peers help me with difficult patient care issues', 4) 'the patient's wishes are respected' and 5) 'a clear sense of the hospital's mission is shared with nurses.

Previously, a good reliability and validity had been demonstrated for the HECS [8]. During the validation of the original instrument, the content validity was supported by a theoretical analysis of the concept 'ethical climate' and a panel of experts in the fields of ethics, management and nursing. The reliability of the original instrument, that is, the internal consistency, Cronbach's α was 0.91 for the overall scale. Cronbach's α for the subscales: physicians, manager, peers, patients and hospital were 0.81; 0.92; 0.73; 0.68 and 0.77, respectively [8].

The questionnaire in the current study also encompassed the following socio-demographic variables: gender, marital status, age, religion, day or night work hours, number of years working, number of years in the current position, jobtime equivalent, level of education and work setting.

In addition, the subscale 'social support' of the Job Content Questionnaire was applied to measure the amount of social support. This scale was inserted to allow a comparison with the HECS and thus facilitate the determination of the convergent validity with the HECS [10-11]. This questionnaire encompasses the subscales 'support of colleagues' and 'support of head nurse'. Both subscales contain 4 items that have to be scored on a 4-point Likert scale ranging from 0 ('completely disagree') to 3 ('completely agree'). The Cronbach's α of both scales was 0.78 and 0.83 respectively.

Data analysis

'SPSS version 16' (SPSS Inc. ®) was used for data analysis. An explorative factor analysis was executed to investigate the adapted HECS's factor structure, applying a Principal Component Analysis (PCA) with Varimax rotation [12]. Criteria to determine the number of factors were Eigen value ≥ 1 and explained variance of a factor minimally 4%. Subsequently, the fit of the proposed factor structure was determined by means of a Confirmatory Factor Analysis (CFA) applying Lisrel [13]. Root Mean Square Error of Approximation (RMSEA) ≤ 0.08, Confirmative Fit Index (CFI) ≥ 0.90 and Standardized Root Mean Square Residual (SRMR) ≤ 0.8 were considered as a good fit. Pearson correlational analyses comparing the mean scores on the HECS' sub domains manager and peers on the one hand and the Job Content Questionnaire subscale 'social support' were used to determine the convergent validity of the HECS.

Results

Descriptive statistics

Three hundred and twenty nurses were asked to participate of which 265 completed the questionnaire (response rate of 83%). Mean age was 40.7 (SD = 9.7; range = 22 - 62),

with a female preponderance (85.6% women). The group aged 41 to 50 represented the biggest part of the cohort (42.3%). The majority of the participants were married or living together (75%). Most of the participants worked full-time (51.8%), during day hours (80.5%), longer than 20 years (44.4%) and with a maximum of 5 years on the present department (38.8%). Regarding the type of department, 21.2% worked on a medium term treatment department, 42.2% on a long term and 36.8% on a short term treatment department.

Validity and reliability

Language validity

Language validity was investigated by means of the translation back - translation method [14]. Few differences were found in the back translation; however, in order to avoid any misunderstanding, 'hospital mission' was explained as 'values and principles that the organization stands for' in the questionnaire and 'manager' and 'peers' were translated as 'head nurse' and 'colleague nurse'. Additionally, 'helping by the head nurse' was replaced by 'support', as helping could implicate that the head nurse resolves the problem.

Contact validity

In order to judge the content validity, the original instrument was also presented to a panel of 5 experts in ethics, psychiatry, research and/or management. A general remark of these experts encompassed the involvement of multiple professional disciplines in team working and decision-making in psychiatric care. As the theory of Brown states that all important groups have to be involved in decision-making, 3 questions concerning the relation with the different allied healthcare professions were added to the instrument: 1) nurses and other health workers respect each others' opinions, even when they disagree about what is best for patients, 2) nurses and other health workers trust one another & 3) other health workers listen to the nurses' worries about difficult care situations [7]. The Content Validity Index (CVI) was used to calculate the relevance of the questions and based on these calculations, no questions had to be removed (all items scored 3 or higher). The overall CVI-score was 0.94, which is high [12].

Validity of the wordings

Seven nurses working in another psychiatric inpatient setting, were asked to judge the validity of the wordings, by completing the HECS and judge each item on clarity and comprehensibility. Overall, they had a positive impression of the modified HECS and they all agreed about the clear purpose and lay-out. They proposed some minor changes in the instructions and the accompanying letter for a better understanding of terms such as 'ethical climate' and 'daily ethical care situations'. Furthermore,

Table 1 Eigenvalue, variance and internal consistency of the factors

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Eigenvalue	9.03	2.96	1.75	1.26	1.08
Variance (%)	33.44	10.96	6.47	4.65	4.01
Internal concistency (total instrument α= 0.920)	0.885	0.918	0.706	0.743	0.584

Table 2 Hospital Ethical Climate Survey – means, frequencies and factor loadings

Total Scale Mean: M = 3.85 (SD = 0.46) Range of means: 2.67 – 4.81	Almost never true	Seldom true	Some-times true	Often true	Almost always true	Factor Loading
Relationship with other disciplines (physicians and other health workers) (M=3.75; SD=0.59)	(%)	(%)	(%)	(%)	(%)	**Factor 1**
Nurses and physicians respect each others' opinions, even when they disagree about what is best for patients (M = 3.74)	1.1	4.2	29.2	50.4	15.2	0.798
Nurses and physicians respect one another (M = 4.08)	0.8	2.3	18.3	45.6	33.1	0.713
Physicians ask nurses for their opinions about treatment decisions (M = 3.47)	1.5	12.7	34.0	40.9	10.8	0.709
Nurses and physicians trust one another (M = 4.00)	8.0	3.8	18.2	49.6	27.7	0.691
Nurses and other health-workers respect each others' opinions, even when they disagree about what is best for patients (M = 3.79)	0.4	3.8	28.9	50.9	16.3	0.691
Nurses and other health workers trust one another (M = 3.94)	0.0	3.4	23.2	49.8	23.6	0.666
Other health workers listen to the nurses worries about difficult ethical care situations (M = 3.60)	0.8	5.0	39.3	43.5	11.5	0.662
I participate in treatment decisions for my patients (M = 3.55)	5.8	6.2	27.4	48.3	12.4	0.578
The feelings and values of all parties involved in a patient care issue are taken into account when choosing a course of action (M = 3.55)	1.1	3.0	43.7	44.1	8.0	0.570
Relationship with manager (M=3.85; SD=0.77)						**Factor 2**
When I'm unable to decide what's right or wrong in a patient care situation, my manager helps me (M=3.64)	2.7	9.5	30.2	36.6	21.0	0.855
My manager is someone I can trust (M = 3.98)	1.5	8.1	18.8	33.8	37.7	0.854
My manager listens to me talk about patient care issues (M = 3.94)	0.4	5.7	20.1	47.0	26.9	0.835
My manager is someone I can respect (M = 4.08)	0.8	4.2	18.7	38.5	37.8	0.799
My manager supports me in my decisions about patient care (M = 3.85)	1.1	4.2	23.4	51.3	19.9	0.788
When my peers are unable to decide what's right or wrong in a patient care situation, I have observed that my manager helps them (M = 3.59)	2.3	8.6	32.3	41.6	15.2	0.717
Relationship with peers (M=4.15; SD=0.49)						**Factor 3**
I work with competent colleagues (M = 4.25)	0.0	0.8	9.8	52.7	36.7	0.739
My peers help me with difficult patient care issues (M = 4.25)	0.0	1.1	11.4	49.2	38.3	0.736
My peers listen to my concerns about patient care (M = 4.08)	0.0	1.1	16.7	55.3	26.9	0.583
Nurses use the information necessary to solve a patient care issue (M = 4.01)	0.0	0.8	18.3	59.9	21.0	0.500
Relationship with patients (M=3.90; SD=0.49)						**Factor 4**
Patients know what to expect from their care (M=3.75)	0.0	4.2	28.0	56.1	11.7	0.693
The patient's wishes are respected (M = 3.77)	0.0	1.5	32.4	53.1	13.0	0.631
Nurses are supported and respected in this hospital (M=3.61)	0.0	6.2	38.8	43.1	11.9	0.541
I am able to practice nursing on my unit as I believe it should be practiced (M = 4.16)	0.0	1.9	9,.5	59.8	28.8	0.516
Safe patient care is given on my unit (M = 4.21)	0.0	1.1	10.6	54.8	33.5	0.497
Relationship with hospital (M=3.64; SD=0.59)						**Factor 5**
Hospital policies help me with difficult patient care issues (M = 3.27)	3.1	11.5	45.8	34.7	5.0	0.738
A clear sense of the hospital's mission is shared with nurses (M = 3.41)	1.5	9.6	41.0	41.8	6.1	0.655
Nurses have access to the information necessary to solve a patient care issue (M = 4.21)	0.4	1.1	11.8	50.0	36.6	0.490

the possible implications of the conducted research were mentioned more explicitly.

Factor structure was examined through PCA. This resulted in 6 factors with Eigen value ≥ one. The sixth factor, however, consisted of only 2 items and explained less than 4% of the variance. In terms of content, the other 5 factors matched the original factor solution. Thus, a 5-factor solution was chosen, which explained 59.5% of the variance (see Table 1). All items had factor loadings of at least 0.45 (see Table 2).

Subsequently, a CFA was conducted with the 5 identified factors included. This resulted in a model with a good fit, that is, RMSEA = 0.0574, CFI = 0.970 and SRMR = 0.0594 [15]. The total scale and the respective subscales showed a good reliability, with α = 0.92 for the total scale, 'relation to other disciplines (medical and allied healthcare workers)' 0.89, 'relation to head nurses' 0.92, 'relation to colleagues' 0.71 and 'relation to patients' 0.74. 'Relation to institution' was the only exception with a rather poor reliability of 0.58 (see Table 1). Finally, the correlation between HECS and subscale 'social support' of the JCQ (r = 0.70; p<0.001) demonstrated a strong convergent validity.

How do nurses perceive the ethical climate on a psychiatric ward?

Estimation of the ethical climate

The present data demonstrate a total mean score of 3.85, indicating a positive ethical climate according to the definition of Olson, requiring a mean score above 3.5 [8]. This score was also significantly higher than the score of 3.7 in previous research in which nurses working in general hospitals in the USA were questioned (t = 5.17, p<0.001) [5]. However, as no subscales were reported in the latter study, an in-depth comparison of both studies was not possible. In the following paragraphs, the scores of the respective HECS subscales will be described.

Relation to other disciplines

Seventy-eight percent of the nurses 'always' or 'almost always' had confidence and respect in the physicians and 73% in the allied healthcare professions. Forty percent answered positively on the question of whether the physician asks their opinion in treatment decisions, while 34% rated this item as 'almost always'. Concerning the taking into account of emotions and values during the decision process, 44% scored this as 'sometimes true' and 44% scored this as 'often true'. The question 'do allied healthcare workers listen to my concerns about a difficult care situation?' was answered 'sometimes true' by 39% of the respondents and 'often true' by 43%.

Relation with the head nurse

Seventy-two percent of the participants 'almost' or 'often' trusted their head nurse, while 10% scored 'almost never'

or 'rarely true' on this item. Seventy-six percent 'often' or 'almost always' felt respect for the head nurse and 70% felt 'often' or 'almost often' supported in their decisions in patient care and 74% had experienced a 'listening ear' of the head nurse. When questioned whether they felt helped by the head nurse when they do not know exactly how to handle a situation, 57% of nurses scored in the range between 'often' and 'almost always', 30% scored 'sometimes true' and 10% 'rarely true'.

Relation with colleagues

Almost 90% 'often' or 'almost always' rated their colleagues as competent and 88% of the participants answered that their colleagues 'often' or 'always' helped in difficult care situations or problems. More than 82% felt listened to by colleagues about their concerns in relation to patient problems.

Relation with patients

Almost 90% of nurses thought that they were 'often' or 'almost always' able to provide care as they wished to do. Respectively, 50% and 32% of the participants thought that the wishes of the patients were 'often' and 'sometimes ' respected. Eighty-eight percent of the nurses rated patient care 'often' or 'almost always' as safe. More than 32% of nurses experienced 'rarely' or 'sometimes' that patients knew what they could expect about their care.

Relation with the institution

More than 86% of nurses rated that they 'often' or 'almost always' had access to all information needed to resolve a patient problem, whereas 11% rated this as 'sometimes true'. 41% 'often' and an equal proportion agreed that the hospital's mission is 'sometimes' shared with the nurses. Almost 40% of nurses 'often' or 'almost always', 45% 'sometimes' and 15% 'rarely' or 'almost never' thought that protocols or procedures helped them in difficult care situations or problems.

Discussion

The current study supports the reliability and validity of the HECS as a tool for measuring the ethical climate for nurses working on a psychiatric ward. Both explorative and confirmatory analysis replicated a 5-factor structure, which is in accordance with previous findings from the original instrument that was developed for nurses working in a general hospital. Following the remarks of the consulted experts and the theory of Brown, 3 items referring to the allied healthcare professions were added to the questionnaire. However, these new items seemed to focus on the dimension 'relation with physician'. As 2 of these items concern respect and confidence, it might be that nurses consider physicians as well as allied healthcare workers as experts in which they have confidence and for

whom they have respect. However, it should also be mentioned that the HECS could contain too few items referring to allied health professionals. Further research will be needed.

To our knowledge, the current study was the first to investigate the ethical climate in a psychiatric inpatient setting and therefore adds important information to the existing knowledge in this field. It is demonstrated that the ethical climate encompasses an extra dimension within the psychiatric practice, that is, an important impact of the multidisciplinary form of collaboration with important influences not only of the physicians, but also of the allied healthcare professions.

The reliability of the total scale was good and similar to that of other studies [5,8,9,16]. One exception was the moderate reliability for the dimension 'relation with hospital'(α=0.58). The lack of items questioning this dimension could contribute to this low reliability. The HECS also appeared to correlate with the perception of social support as measured by means of the Job Content Questionnaire, supporting the convergent validity. This also supports the hypothesis that social support is an important factor of the ethical climate. Finally, participants perceived the ethical climate in their institution as relatively good. Especially respect and confidence between nurse and physician as well as allied healthcare workers were rated well, which could result in an optimal cooperation. However, there is still progress possible as the opinion of nurses in treatment decisions has not yet solicited enough (50% scored this item as 'almost never', 'rarely' or 'sometimes').

The scores on the item 'relation with colleagues' are high as 90% reported working with competent colleagues and receiving help in difficult situations. This is surprising, as an intensive cooperation also often leads to difficulties in relations. It is also important to mention that almost 90% considered being able to give the care they would like to give. This is important because only 58.7% of a group of 10,000 hospital nurses (both general and psychiatric hospitals) stated they could give the care they would like to give [17].

The consolidation of these results requires a future proactive organizational management. The lowest scores were found in the relation with the institution, which merits further attention. A large proportion of the cohort did not share a clear sense of the hospital mission or did not feel supported by the existing protocols and procedures in difficult care situations. It could be that this information, that is, values and standards, should be communicated in a more efficient way. Moreover, it could be interesting to investigate the available ethical guidelines and check whether these accord to the current social context. In addition, these guidelines should be easily available and usable. This finding is in accordance with the results of Bahcecik and Oztürk in general hospitals, where the sharing of the hospital mission and guidelines also appears to be an important factor [16].

The ethical climate becomes more and more important as healthcare becomes more and more complex. The communication of ethical problems should not be limited to an ethics committee, but should be integrated in the existing consultation platforms. It is important to create an ethical climate with nurses with an ethical sensitivity and resilience, which could help facilitating discussions about ethical issues [18]. It should be mentioned that the basic attitude of psychiatric nurses should be one of critical reflection about care situations and about themselves. Such an attitude will possibly facilitate ethical reflections. The current study demonstrates that ethical reflection is present, but sometimes remains limited to the individual thought about a situation. Due to a lack of ethical knowledge, nurses might sometimes avoid explicit discussions about values and standards. Nurses should also be encouraged to become more aware of their ethical considerations and discuss these with their colleagues and other caregivers. This study could stimulate further explorations of this topic.

The current study is limited in that all questionnaires were self-reported, implicating that social desirability in answering the questions could have biased the results [12]. Our sample was also restricted to one institution, so that a generalization of the results should be made with caution. Also, it should be emphasised that the results from the factor structure could be highly dependent of the study sample. Therefore, further research in other settings is required. Such research could aim to replicate the current findings in other psychiatric hospitals. The strengths of this research project are in its high reliability, due to the large cohort of participating nurses and the high response rate (83%). Moreover, this study also focused on the respective subscales of the HECS, in contrast with previous papers that described the findings of the total scores only.

As previous results were collected in general hospitals and as only few studies have been published, a comparison with previous studies should be performed and interpreted with suitable caution. However, as there is a paucity of studies on this topic, the current study is advanced as adding important information to the existing, limited knowledge in the field.

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