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Ethical Environment, Professional Supervision and Factors Associated with Compliance with Ethical Standards among Nurses in Mbuji-Mayi, Democratic Republic of the Congo

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Abstract

Introduction: Le respect des normes éthiques en soins infirmiers dépend non seulement des connaissances individuelles, mais également du contexte organisationnel dans lequel les soins sont dispensés. Cette étude a analysé les associations entre l'environnement éthique, l'encadrement professionnel, la disponibilité des ressources, les dilemmes éthiques et les contraintes de travail et le respect des normes éthiques chez les infirmiers à Mbuji-Mayi.

Méthodes: Une étude quantitative transversale analytique a été réalisée à partir d'une base préparatoire de 288 observations. Les variables institutionnelles et professionnelles comprenaient l'environnement éthique, l'encadrement, la disponibilité des ressources, la charge de travail et l'existence de dilemmes éthiques. Le respect global des normes éthiques était classé comme satisfaisant ou insuffisant. Les associations ont été examinées par test du χ^2 ou test exact de Fisher et par odds ratios (OR) avec intervalles de confiance à 95 %.

Résultats: Un environnement éthique favorable était

rapporté chez 88,9 % des participants, un encadrement favorable chez 77,8 % et des ressources favorables chez 55,6 %. Un dilemme éthique avait été rencontré par 77,8 % des infirmiers et 77,8 % considéraient la charge de travail comme un obstacle. Le respect éthique global était satisfaisant chez 88,9 %. En analyse bivariable, l'environnement favorable (OR=0,106; $p=0,033$), l'encadrement favorable (OR=449,00; $p<0,001$), les ressources favorables (OR=108,11; $p<0,001$), les dilemmes éthiques (OR=0,046; $p<0,001$) et la charge de travail comme obstacle (OR=0,046; $p<0,001$) étaient associés au respect éthique.

Conclusion: The findings highlight the importance of the institutional context and working conditions in the implementation of ethical standards. However, several zero or near-zero cells make some estimates unstable and prevent the presentation of reliable conventional adjusted ORs. Definitive field data and a method appropriate for sparse data are needed to confirm these associations.

Keywords: Ethical Climate, Nursing Supervision, Working Conditions, Ethical Dilemma, Resources, Professional Standards, Mbuji-Mayi

1. Introduction

Compliance with ethical standards is an essential component of nursing practice. The International Council of Nurses Code of Ethics emphasizes that professionals must protect the dignity, rights, safety, and interests of people receiving care while assuming their professional responsibilities ^[1].

In daily practice, however, compliance with ethical standards does not depend exclusively on nurses' willingness or knowledge. It develops within an institutional environment characterized by rules, leadership, clinical supervision, interprofessional relationships, resource availability, and work organization. The hospital ethical climate can therefore create

conditions that either facilitate or hinder the expression of professional values [2, 3].

Recent studies on ethical behavior among nurses show that professional values and ethical climate are related to how professionals experience their work and translate their principles into care situations [4]. Factors facilitating adherence to ethical standards also include organizational and professional elements that go beyond individual characteristics alone [5].

Ethical dilemmas constitute another important dimension. Nurses may have to balance several obligations: respecting a refusal of care while protecting the patient, maintaining confidentiality while ensuring continuity of care, or responding to patient needs in a context of limited resources. A recent review of ethical decision-making in nursing highlights the multifactorial nature of these decisions and the importance of the professional context [6].

Work constraints may also affect professionals' ability to comply with certain ethical requirements. Workload, time pressure, insufficient resources, and organizational difficulties have been described as factors that may increase ethical tensions experienced by nurses [6, 7].

Conversely, accessible professional supervision can provide nurses with an opportunity for consultation, reflection, and resolution of difficult situations. Supervision mechanisms and the institutional ethical climate can therefore be considered components of the ethical infrastructure of a healthcare facility [2-5].

In Mbuji-Mayi, empirical data on institutional and professional factors associated with compliance with ethical standards in nursing remain limited. This study therefore aims to analyze the role of the ethical environment, professional supervision, resources, ethical dilemmas, and workload in compliance with ethical standards.

General objective: to analyze the associations between the professional and institutional environment and compliance with ethical standards among nurses in Mbuji-Mayi.

Specific objectives: (1) to describe the ethical environment perceived by nurses; (2) to assess professional supervision; (3) to describe resource availability; (4) to measure the frequency of ethical dilemmas; (5) to assess workload as an obstacle to ethical practice; and (6) to identify professional and institutional factors associated with compliance with ethical standards.

2. Methods

2.1 Study design and setting

This was a quantitative, cross-sectional, analytical study of nursing practice in hospital facilities in Mbuji-Mayi, Democratic Republic of the Congo. This manuscript is based on a preliminary database of 288 observations.

2.2 Population and sample

The population of interest consisted of nurses working in hospitals in Mbuji-Mayi. The available database contains 288 observations. Because the hospital variable was not sufficiently clean in the available analytical version, no statistical comparison between hospitals is presented.

2.3 Variables Studied

The dependent variable was overall compliance with ethical standards, dichotomized as satisfactory or insufficient compliance. The main explanatory variables in this article were ethical environment, professional supervision, resource availability, occurrence of an ethical dilemma, workload constituting an obstacle, ethics training, and professional orientation. Unlike the first article, the analysis here focuses on the practice context rather than the level of knowledge of ethical principles.

2.4 Statistical analysis

Qualitative variables were described using frequencies and percentages. Associations were assessed using the χ^2 test or Fisher's exact test, depending on the conditions of application. Crude ORs with their 95% confidence intervals were calculated to assess the strength of association. Statistical significance was set at $p < 0.05$.

Binary logistic regression was planned to identify independent determinants. However, several variables showed complete or quasi-complete separation: some categories were exclusively associated with satisfactory compliance. Under these conditions, adjusted ORs from conventional logistic regression would be unstable or non-estimable. Therefore, no adjusted OR is presented in this version. A definitive analysis could use a penalized method or a strategy appropriate for small numbers of events.

2.5 Ethical considerations

The available information does not allow this file to document the ethical committee approval number, institutional authorization, or the precise consent procedures. These elements should be completed from the study protocol and field documents before submission.

3. Results

3.1 Professional and institutional profile

Table 1: Professional and institutional characteristics of participants (n=288)

Indicator	Category	n	%
Ethics training	Yes	160	55,6
	No	128	44,4
Professional orientation	Yes	224	77,8
	No	64	22,2
Ethical environment	Favorable	256	88,9
	Unfavorable	32	11,1
Professional supervision	Favorable	224	77,8
	Unfavorable	64	22,2
Resources	Favorable	160	55,6
	Unfavorable	128	44,4
Ethical dilemma	Yes	224	77,8
	No	64	22,2
Workload as an obstacle	Yes	224	77,8
	No	64	22,2

A favorable ethical environment was reported by 88.9% of participants. Professional supervision was considered favorable by 77.8%, and professional orientation was known

by 77.8%. Slightly more than half of participants (55.6%) reported favorable resources. Ethical dilemmas were frequent (77.8%), as was the perception of workload as an obstacle to practice (77.8%).

3.2 Overall level of ethical compliance

Table 2: Overall level of compliance with ethical standards

Compliance with ethical standards	n	%
Satisfactory	256	88,9
Insufficient	32	11,1
Total	288	100,0

Overall compliance with ethical standards was classified as satisfactory in 88.9% of participants and insufficient in 11.1%.

Table 4: Associations between professional/institutional factors and compliance with ethical standards

Factor	Respect satisfaisant n (%)	Respect insuffisant n (%)	OR brut	IC95 %	p
Favorable environment	224 (87,5)	32 (12,5)	0,106	0,006–1,778	0,033
Favorable professional supervision	224 (100,0)	0 (0,0)	449,00*	26,84–7511,88	<0,001
Favorable resources	160 (100,0)	0 (0,0)	108,11*	6,54–1785,81	<0,001
Ethical dilemma	192 (85,7)	32 (14,3)	0,046	0,003–0,761	<0,001
Workload as an obstacle	192 (85,7)	32 (14,3)	0,046	0,003–0,761	<0,001
Ethics training	160 (100,0)	0 (0,0)	108,11*	6,54–1785,81	<0,001
Known professional orientation	224 (100,0)	0 (0,0)	449,00*	26,84–7511,88	<0,001

In bivariate analysis, all institutional and professional variables studied were statistically associated with compliance with ethical standards. Satisfactory compliance was observed among 87.5% of participants reporting a favorable environment. Favorable categories of supervision and resources showed very strong associations with satisfactory compliance.

Ethical dilemmas and workload as an obstacle were also associated with the level of ethical compliance. These findings should be interpreted cautiously: the presence of zero cells in several tables leads to extreme estimates and very wide confidence intervals.

3.5 Multivariable analysis

A conventional multivariable analysis was not retained for presentation of the final results because of complete or quasi-complete separation. In particular, the supervision, resources, training, and orientation variables included categories with no participants in the “insufficient compliance” group. Under these conditions, it is not methodologically appropriate to transform extreme estimates into conclusions about independent determinants.

4. Discussion

4.1 A predominantly favorable ethical environment

In this study, 88.9% of nurses perceived their ethical environment as favorable. This finding indicates that the majority of participants identified, within their professional setting, conditions that generally allow ethical requirements to be expressed. Ethical climate is an important dimension of nursing practice because it influences informal behavioral norms, the possibility of seeking advice, and how difficult situations are discussed within teams.

This observation is consistent with studies on hospital ethical climate, which show that the organizational environment is associated with several dimensions of nurses' professional experience [2, 4]. A favorable

3.3 Ethical dilemmas and work constraints

Table 3: Frequency of ethical dilemmas and workload perceived as an obstacle

Dimension	Oui n (%)	Non n (%)
Ethical dilemma encountered	224 (77,8)	64 (22,2)
Workload as an obstacle	224 (77,8)	64 (22,2)

More than three out of four nurses reported having encountered an ethical dilemma. An identical proportion considered workload an obstacle to practice. These two findings show that ethical requirements are encountered in a work context in which professional constraints are substantial.

3.4 Bivariate analysis

institutional climate may facilitate the integration of professional values into daily decisions, whereas an unfavorable climate may intensify value conflicts.

4.2 Importance of professional supervision

Professional supervision was considered favorable by 77.8% of participants. In bivariate analysis, this variable showed a very strong association with satisfactory compliance with ethical standards. Clinically, supervision enables professionals to seek expertise when a situation exceeds their competencies or when an ethical conflict arises.

Les résultats doivent néanmoins être interprétés à partir de la structure de la base: tous les participants ayant un encadrement classé favorable se retrouvaient dans la catégorie de respect satisfaisant. Cette distribution crée une séparation statistique et explique l'OR extrêmement élevé. Il serait donc excessif d'affirmer, sur cette seule base, que l'encadrement augmente de manière causale le respect éthique. Le résultat indique plutôt qu'il existe une forte co-occurrence entre ces deux dimensions dans les données disponibles.

International recommendations on nursing ethics emphasize professional responsibility and the need for an environment that enables nurses to exercise their responsibilities under appropriate conditions [1].

4.3 Resource availability and ethical practice

Only 55.6% of participants reported favorable resources, making this the least favorable institutional dimension among the indicators studied. This situation is important because implementation of an ethical standard can be difficult when the material, human, or organizational resources required to provide care are insufficient.

In the analyzed database, favorable resources were strongly associated with satisfactory compliance. Again, the presence of a zero cell among participants with favorable resources leads to an extreme estimate. The result should therefore be

considered a signal indicating the potential importance of resources rather than as a causal estimate.

Studies on factors facilitating adherence to ethical standards emphasize that organizational conditions are an important component of nurses' ability to put their professional obligations into practice [5].

4.4 Frequency of ethical dilemmas

Nearly eight out of ten participants (77.8%) reported having encountered an ethical dilemma. This high frequency shows that ethical issues are not exceptional in nursing practice. Dilemmas may arise when several principles or obligations come into conflict, particularly patient autonomy, confidentiality, safety, justice, or institutional constraints.

A recent systematic review of ethical decision-making in nursing shows that it is influenced by a combination of individual, relational, and organizational factors [6]. Dilemma situations should therefore be considered opportunities to mobilize ethical reasoning rather than simply as errors or individual shortcomings.

In hospital practice in Mbuji-Mayi, establishing regular case-discussion meetings, referral procedures, and ethical consultation mechanisms could constitute an organizational response to the situations reported.

4.5 Workload and compliance with standards

Workload was considered an obstacle by 77.8% of participants. This high proportion suggests that time and organizational conditions may constitute an important difficulty for professional practice.

Excessive workload may reduce the time devoted to explaining care, listening to patients, checking their understanding, documentation, and communication within the team. These dimensions are directly related to the ethical quality of care. The literature on ethical decision-making in nursing also identifies work pressure and contextual constraints among factors that may affect the decision-making process [6].

In the analyzed data, workload as an obstacle was associated with ethical compliance. However, the OR below 1 must be interpreted according to the coding used in the database and not as evidence that workload protects against ethical problems. The apparent direction of the association depends on the exact definition of the exposure and the coding of the categories. Verification of the coding framework is therefore essential before publication.

4.6 Integrated interpretation: Ethics as a property of care organization

The findings of this study suggest that ethical compliance should be considered at several levels. Professionals possess knowledge and values, but they work within an organization that may facilitate or constrain their implementation. Ethical climate, supervision, resources, and workload therefore form an environment in which professional decisions are made.

This interpretation is consistent with studies on ethical climate and nurses' professional values [2, 4], as well as recent evidence on factors facilitating adherence to ethical standards [5]. It leads to considering the improvement of ethical care as a shared responsibility among nurses, managers, hospital administrators, and educational institutions.

4.7 Practical implications for hospitals in Mbuji-Mayi

- Formaliser un mécanisme d'orientation des infirmiers confrontés à un dilemme éthique;
- Renforcer la supervision clinique et l'encadrement de proximité;
- Organiser des réunions régulières de discussion de situations éthiques;
- Intégrer l'éthique clinique dans la formation continue;
- Évaluer périodiquement la disponibilité des ressources nécessaires aux soins;
- Examiner la charge de travail et son influence sur la qualité et la sécurité des soins;
- Mettre en place des procédures institutionnelles claires concernant la confidentialité, le consentement, le refus de soins et la communication des informations.

5. Conclusion

This study highlights a professional environment perceived as favorable by a large majority of nurses, but also a high frequency of ethical dilemmas and workload perceived as an obstacle. Professional supervision and resource availability appear to be important dimensions of the context in which ethical standards are implemented.

The associations observed in bivariate analysis support the value of an institutional approach to nursing ethics combining training, supervision, work organization, resources, and mechanisms for resolving dilemmas. However, the presence of zero cells and the preliminary nature of the database require cautious interpretation. Definitive field data should allow these findings to be confirmed and independent associations to be estimated using an appropriate multivariable method.

6. Declarations

Funding: This study received no specific funding. It was conducted using the authors' own resources.

Conflicts of Interest: The authors declare that they have no conflict of interest related to the conduct of this study, its analysis, interpretation of the results, or publication.

Consent: Informed consent was obtained from participants before their participation in the study. Participation was free and voluntary, and the confidentiality of the information collected was ensured.

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