

Ethical climate in the primary healthcare setting: a cross-sectional study

Clima ético no ambiente de trabalho da atenção primária à saúde: um estudo transversal

Clima ético en el ambiente de trabajo de la atención primaria a la salud: un estudio transversal

Lenna Eloisa Madureira Pereira^I; Grazielle de Lima Dalmolin^{II}; Priscila Orlandi Barth^{II};
Laura Cavalcanti de Farias Brehmer^{III}; Flávia Regina Souza Ramos^{III}

^IUniversidade Federal do Pará. Belém, PA, Brazil; ^{II}Universidade Federal de Santa Maria. Santa Maria, RS, Brazil;

^{III}Universidade Federal de Santa Catarina. Florianópolis, SC, Brazil

ABSTRACT

Objective: to evaluate the ethical climate in the work environments of primary healthcare units in a town in the Amazon region and analyze its correlation with socio-occupational variables. **Method:** this cross-sectional and correlational study was conducted with workers from seven healthcare units, with a sample of 170 participants. A socio-occupational questionnaire and the Brazilian version of the Ethical Climate Questionnaire were used. **Results:** principles and rules, benevolence, and individualism were identified as factors in the ethical climate of the work environments studied, in that order of relevance. A weak correlation was found with years since graduation, and a moderate correlation was found with sick leave. **Conclusion:** a concern for professional duty and collective responsibility prevails in the ethical climate described here. Professional experience is positively related to the value of benevolence and to the principles and rules that should guide the work of healthcare professionals.

Descriptors: Public Health Nursing; Primary Health Care; Occupational Health; Ethics, Institutional; Working Conditions.

RESUMO

Objetivo: avaliar o clima ético em ambientes de trabalho de unidades básicas de saúde de um município da região amazônica e analisar sua correlação com variáveis socio laborais. **Método:** estudo transversal e correlacional realizado com trabalhadores de sete unidades de saúde, com amostra de 170 participantes. Foram utilizados um questionário sócio laboral e o Inventário de Clima Ético. **Resultados:** princípios e regras, benevolência e individualismo foram os fatores presentes no clima ético nos ambientes de trabalho estudados, nesta ordem de relevância; os quais se relacionaram de forma fraca com tempo de formação e de forma regular com tempo de afastamento. **Conclusão:** no clima ético compartilhado, prevalece a preocupação com o dever profissional e com a responsabilidade coletiva. O tempo de experiência profissional se relaciona positivamente com o sentido da benevolência e com princípios e regras que devem embasar a atuação dos profissionais de saúde.

Descritores: Enfermagem em Saúde Pública; Atenção Primária à Saúde; Saúde do Trabalhador; Ética em Instituições de Saúde; Ambiente de Trabalho.

RESUMEN

Objetivo: evaluar el clima ético en ambientes de trabajo de unidades básicas de salud de un municipio de la región amazónica y analizar su correlación con variables sociolaborales. **Método:** estudio transversal y correlacional realizado en trabajadores de siete unidades de salud, con una muestra de 170 participantes. Fueron utilizados un cuestionario sociolaboral y el Inventario de Clima Ético. **Resultados:** principios y reglas, benevolencia e individualismo fueron los factores presentes en el clima ético, en los ambientes de trabajo estudiados, en esta orden de relevancia; ellos se relacionaron de forma débil con el tiempo de formación y de forma regular con el tiempo de ausencia del trabajo. **Conclusión:** en el clima ético compartido prevalece la preocupación con el deber profesional y con la responsabilidad colectiva. El tiempo de experiencia profesional se relaciona positivamente con el sentido de la benevolencia y con principios y reglas que deben apoyar la actuación de los profesionales de la salud.

Descriptores: Enfermería en Salud Pública; Atención Primaria de Salud; Salud Laboral; Ética Institucional; Condiciones de Trabajo.

INTRODUCTION

Primary Health Care (PHC) is essential for effectively meeting the health needs of the population and is characterized as a work environment with specific aspects that must be considered¹. Providing comprehensive and longitudinal care through PHC requires a well-structured and collaborative team approach, with ethics playing a central role in both the work process and care delivery.

As recommended by PHC guidelines, such healthcare environments should meet minimum favorable conditions to ensure quality care delivery; however, various weaknesses are often present. One of the most frequently highlighted issues is the frequent exposure of workers to biological, psychosocial, and other risk factors,

This study was financed in part by the *Coordenação de Aperfeiçoamento de Pessoal de Nível Superior* – Brazil (CAPES) – Finance Code 001.

Corresponding author: Lenna Eloisa Madureira Pereira. Email: lenna.madureira@gmail.com

Editor-in-Chief: Cristiane Helena Gallasch; Associate Editor: Mada Guimarães de Araujo Faria

coupled with a lack of personal protective equipment (PPE)². Yet, this is only part of the problem affecting this work environment.

PHC requires teamwork, with healthcare workers engaging in mutual interactions to address the complexities of their practice, including relational and ethical demands. These demands can become burdensome for those working in a healthcare system threatened by potential defunding, disparities in professional training quality, social inequalities, poor working conditions, and challenges in retaining professionals in certain regions³.

Ethical Climate (EC) is an attribute of the organizational climate across various work environments. Initial studies primarily stem from the corporate and management fields. Theorists such as Victor and Cullen (1988) are notable for clarifying the construct and its relationship with job satisfaction and quality of life⁴. Conceptually, EC is defined by healthcare professionals' perceptions and experiences of their work environments, care practices, and ethical considerations. Reflecting on EC within the workplace offers guidance for addressing challenges encountered within organizations⁵⁻⁷.

Since the 1990s, EC has been studied in healthcare, particularly in hospital settings, and has been associated with moral and psychological distress, occupational health, job satisfaction, turnover intention, and occupational injuries, especially in high-stress sectors such as ICUs, emergency departments, and oncology. Consequently, EC is regarded as a highly relevant factor impacting the quality of life of healthcare professionals^{8,9}.

In Brazil, there has been an increase in EC studies within the healthcare field; however, these predominantly focus on hospital settings, with fewer studies addressing PHC, which could broaden understanding of ethical aspects in these environments. Consequently, a significant gap exists in the analysis of EC in PHC settings and in the understanding of these experiences.

EC evaluations can serve as a tool to reduce absenteeism and turnover, while improving satisfaction, performance, and adaptability in the workplace¹⁰. Furthermore, such assessments can highlight opportunities for nurses to promote ethical leadership, foster interprofessional collaboration, and address morally stressful situations^{11,12}.

In this context, this study aimed to evaluate the ethical climate in the work environments of PHC units in a town in the Amazon region and analyze its correlation with socio-occupational variables.

METHOD

This cross-sectional, descriptive, and correlational study was conducted in seven PHC units located in Ananindeua, PA, Brazil, with data collected via an online questionnaire from August 2020 to March 2021.

The Brazilian version of the Ethical Climate Questionnaire (ECQ) was used to collect data. This questionnaire consists of 19 items across three factors: benevolence (BNV) with nine items, principles and rules (PR) with six items, and independence and instrumentalism (IND) with four items. Each item is rated on a six-point Likert scale, ranging from 1 (completely false) to 6 (completely true). The ECQ was translated, adapted, and validated for the Brazilian organizational context⁵. Since no further validation was required, a single adjustment was made to specify the setting as "health units" instead of "organization." Additionally, authorization was obtained from the questionnaire's original author for its use. A separate form was used to collect socio-occupational information.

The sample consisted of 170 workers, either hired through competition or under contract, who had been working in a health unit for at least two months (inclusion criterion). Those on vacation or leave, security guards, and residents during the study period were excluded (exclusion criteria).

The sample size calculation was based on a finite population of 444 workers, with a 95% confidence interval and a 5% margin of error, resulting in a target of 169 participants. Of the 214 workers invited to participate in the survey, 44 declined during data collection, leaving a final sample of 170 participants. Recruitment was conducted through in-person announcements at the units and via WhatsApp®. Contacts were provided by the unit managers and by the workers invited to participate in the study. Participants' identities and digital information remained confidential, and all ethical safeguards were observed, as outlined in the informed consent form, which all participants signed.

Statistical analysis was performed using the Statistical Package for Social Sciences (SPSS®), version 25¹³. Absolute and relative frequencies are presented for categorical variables, with the mean and standard deviation for

age. Other quantitative variables are presented by median and interquartile range (median [P25; P75]), based on the distribution assessed by the Shapiro-Wilk normality test.

The t-test for independent samples or analysis of variance (ANOVA) was used to compare the mean score of each ECQ factor across qualitative variables. When one of the variable categories had a sample size (n) of fewer than 12 subjects, quantitative variables were compared using the nonparametric Kruskal-Wallis test.

The Spearman correlation was used to assess the degree of relationship between the ECQ factors and quantitative variables. The strength of significant correlations was classified as follows: 0 to <0.3 = weak, ≥ 0.3 to <0.6 = moderate, ≥ 0.6 to <0.9 = strong, ≥ 0.9 to 1.0 = very strong¹⁴. The significance level was set at 0.05. Bias risk was assessed for each domain (randomization bias, intervention deviation/effect bias, missing data bias, measurement bias, and outcome selection bias) to ensure a low risk of bias and to identify any elements that might not apply to this study.

The research protocol adhered to the ethical guidelines of the Brazilian National Health Council and was reviewed and approved by the Ethics Committees of the institutions involved. This report follows the guideline Strengthening the Reporting of Observational Studies in Epidemiology (STROBE).

RESULTS

A total of 170 healthcare workers participated in this study, with an average age of 39 (± 10.2) years. Most were women (n=133; 78.1%), and participants were practically evenly split between those with a partner (n=86) and those without (n=84). Additionally, the majority had children (n=111; 65.7%) and resided in the town where the study was conducted (n=128; 75.3%). When they began working in the service, 104 participants had completed high school or technical education (61.2%). By the time of data collection, 41.8% (n=71) had advanced their education: 37 had obtained a graduate degree (21.7%), and 120 had attended a training program (70.6%), with 52.8% of these completing short- or medium-term training (n=88). Participants reported having graduated 9 (± 3.17) years ago and having worked in the field for an average of 7.5 (± 4.15) years.

Regarding employment, 107 participants (62%) held permanent positions with a work schedule of 8 hours per day or 40 hours per week. Most did not report holding a second job (n=109; 64.1%). Over the 12-month period in 2020, 71.2% of participants remained in their positions, while 28.8% were temporarily absent from work (n=49), primarily due to Covid-19 (n=33; 70.2%). Sick leave averaged 18 (± 14.30) days.

Table 1 presents the average intensity (in descending order) of each item in the Ethical Climate Questionnaire according to healthcare workers' ratings.

Table 1: Mean intensity levels of each item in the Ethical Climate Questionnaire in descending order (n=170). Ananindeua, PA, Brazil, 2021.

Factor	Item	mean (SD)
PR	People are expected to do what is best for the customers and the public	5.37(± 1.52)
PR	People are expected to follow the law and professional standards above all	5.14(± 1.37)
PR	In this service, people are expected to strictly follow legal and professional standards	5.13(± 1.06)
BNV	It is expected that each person is treated fairly when decisions are made	5.12(± 1.29)
PR	It is very important to strictly follow rules and procedures in this health unit	5.12(± 1.30)
PR	Everyone is expected to adhere to organizational rules and procedures	5.05(± 1.19)
BNV	People in this health unit have a strong sense of responsibility toward the outside community	4.90(± 1.24)
PR	People actively care about the interests of customers and the public	4.87(± 0.97)
BNV	In this health unit, our main concern is doing what is best for others	4.69(± 0.98)
BNV	People in this health unit are concerned about each other's well-being	4.47(± 1.09)
BNV	Our main concern is the well-being of everyone who works here	4.37(± 1.11)
BNV	People in this service highly value team spirit	4.22(± 1.05)
BNV	The most important concern in this service is the well-being of all who work here	4.21(± 0.88)
BNV	The primary concern in this health unit is what is good for each individual	4.18(± 0.94)
BNV	People care greatly about what is best for the employees as a whole	3.91(± 1.06)
IND	In this service, people are guided by their own personal ethics	3.77(± 1.58)
IND	In this service, people primarily protect their own interests	3.28(± 1.52)
IND	In this service, each person decides for themselves what is right or wrong	2.63(± 1.61)
IND	What matters in this service is what each individual considers right or wrong	2.48(± 1.61)

Notes: BNV – benevolence; PR - principles and rules; IND - independence and instrumentalism; BNV - mean of 4.45; PR - mean of 5.11; IND - mean of 3.04.

The overall mean score for the ECQ was 4.15, with a total score of 79 (sum of 19 items, maximum possible score of 114). The item with the highest mean was “People are expected to do what is best for customers and the public” (5.37 [SD±1.52]) in the Principles and Rules factor. Conversely, the item with the lowest mean was “What matters in this service is what each individual considers right or wrong” (2.48±1.61) in the Independence and Instrumentalism factor. Notably, all four items in the Independence and Instrumentalism factor ranked among the lowest, whereas the Principles and Rules factor emerged as one of the most relevant, with six of its items among the eight highest-scoring.

Table 2 presents the three significant correlations between the Ethical Climate in Organizations factors and the quantitative variables addressed in this study.

Table 2: Ethical Climate in Organizations factors and quantitative variables studied (n=170). Ananindeua, PA, Brazil, 2021.

Variables	Factor1 (BNV) r (p-value)	Factor2 (PR) r (p-value)	Factor3 (IND) r (p-value)
Age (n=167)	0.097 (0.214)	0.073 (0.349)	0.005 (0.948)
Time since graduation (n=170)	0.231 (0.002)	0.203 (0.008)	-0.039 (0.610)
Time working in the position (years) (n=170)	0.142 (0.066)	0.053 (0.494)	0.027 (0.724)
Sick leave (days) (n=34)	0.062 (0.729)	-0.076 (0.668)	0.340 (0.049)

Years since graduation was weakly correlated with Factor 1 (Benevolence) (r=0.231; P=0.002) and Factor 2 (Principles and Rules) (r=0.203; P=0.008), while sick leave was moderately correlated with Factor 3 (Independence) (r=0.340; P=0.049).

Table 3 presents the results of the correlation analysis.

Table 3: Comparison of mean scores of factors with the qualitative variable that showed a significant correlation (n=170). Ananindeua, PA, Brazil, 2021.

Lives in Ananindeua	Factor 1		Factor 2		Factor 3	
	mean (SD) ¹	min – max ²	mean (SD) ¹	min - max ²	mean (SD) ¹	min - max ²
No (n=42)	34.3 (4.5)	23.8 - 42.8	30.6 (4.1)	19.8 - 37.3	4.7 (2.8)	0.3 - 11.4
Yes (n=128)	34.0 (6.2)	10.5 - 45.9	29.7 (5.3)	7.0 - 38.2	6.0 (3.2)	-0.4 - 12.3
p-value	0.792		0.333		0.030	

Legend: ¹T-test for independent samples; ²ANOVA.

The only significant correlation with a qualitative variable was found between the Independence and Instrumentalism factor (Factor 3) and residence in the town (P=0.030). Respondents living in the town had a higher mean score (a difference of 1.3 points) than those who did not.

DISCUSSION

The three ECQ factors—Principles and Rules, Benevolence, and Independence/Instrumentalism—emerged in this order of importance when workers assessed their work environments. In evaluating the ethical climate, workers are assumed to indicate the factors influencing EC, its determinants, or expressions within this snapshot of work conditions. Consequently, EC has the potential to impact the quality of care delivery, as well as influence workers' actions, autonomy, and satisfaction with their work environment.

In organizational ethics, questions concerning operational environments are essential for analyses at the micro (individual), intermediate (institutional), and macro levels. Challenges related to the environment, managerial conflicts, and internal situations require sound judgment and reflection from those involved in that setting¹⁵.

The correlations found in this study were between years since graduation and Factor 1 (Benevolence) and Factor 2 (Principles and Rules). The first correlation suggests that more extended professional experience reflects benevolence as a guiding value in the workplace, fostering the well-being of individuals, the broader community, and colleagues. This emphasis on benevolence reinforces team spirit, the quality of interactions, and the outcomes.

This result can be attributed to a strong organizational culture in which good interpersonal relations and responsibility are deeply rooted. This interpretation does not overlook conflicting practices or issues that might weaken the ethical climate in healthcare work environments, such as inefficient communication or violence in interactions

between users and workers¹⁶. On the contrary, the ethical climate reflects workers' perceptions of how problems are addressed, rather than the absence of problems¹⁷.

The correlation between years since graduation and Factor 2, "Principles and Rules," demonstrates how workers' actions or decisions are shaped by professional experience and the significant role of respect for the deontological code and established rules. Motivation and the ability to understand moral challenges and act according to professional objectives are considered aspects of moral agency, which require supportive environments¹⁸ and are grounded in the profession's normative ethical standards. In other words, the moral action plans that guide ethical behavior are also supported by institutional norms and professional conduct standards to standardize best practices in healthcare^{4,15}. In this interpretation, the greater relevance of principles and rules and their relationship with experience (both evidenced in the results) does not indicate a gap or loss of self-determination (moral agency and autonomy), but rather the potential influence of training, ethical-deontological knowledge, and a sense of professional responsibility within the service.

Experience seems to influence the value placed on the principles and rules guiding professional practice¹⁹. This may relate to the longer time required to assimilate these ethical and legal guidelines or even witness the consequences of situations where such guidelines are challenged. The capacity for perception (moral sensitivity) and decision-making in the face of ethical issues is reported to be influenced by both training and experience, as well as by experiences of moral distress¹⁷.

The relationships with patients, organizational structures, and collaboration with colleagues summarize many of the ethical issues experienced by nurses, which can be transposed to other professionals on the team. The complexity of the practice and the ethical problems and concerns are revealed by the effort to balance harm and care, overload and quality, or even act amid disagreements between professional values, standards, and organizational rules²⁰.

Indeed, the interpretation of how experience, moral sensitivity, and the use of supportive elements for moral deliberation are associated with moral distress has already been reported. More significant distress, coupled with heightened sensitivity and commitment to resolving conflicts, increases the importance attributed to professional experience, the Code of Ethics/Law of Professional Practice, and ethical and bioethical principles¹⁷.

In summary, the participants consider ethical and deontological foundations (the Principles and Rules factor) relevant in shaping the ethical climate, which confirms the lesser role of Factor 3 (Independence and Instrumentalism), where strictly individual interests, values, and judgments prevail.

Despite the weight of Factor 1, the importance of professional autonomy and moral agency should be considered, not as opposing but as complementing ethical commitments. Autonomy is essential for transforming care delivery, respecting the uniqueness of care needs, and fostering a welcoming environment²¹, going beyond mere adherence to organizational guidelines. Furthermore, moral agency should not focus solely on professionals' values but rather on the patients' values in shaping the professionals' obligations²². Since we addressed nurses and their patients, this can be applied to healthcare teams in general.

The development of the ECQ grounded in rule adherence may have negative nuances if associated with restricted autonomy in addressing moral challenges in daily decision-making²³, which may trigger moral distress and depression, anxiety, or stress, increasing the risk of illness among PHC workers²⁴.

On the other hand, the internalization of principles and rules can be positive, as healthcare workers embrace values that align with the codes and standards formulated by the profession, which already reflect a collective autonomy. Professional identities require interprofessional moral communities that support and promote moral agency and integrity among their members; this occurs relationally and within safe spaces that invest in well-being and co-creation of healthy environments and ethical practice²⁵. The aim here is to emphasize the importance of a more unified interpretation of these two correlations, as they show coherence—years of professional experience impact the significance of these two factors in assessing the ethical climate because principles are integral to identities. When these identities embrace values like benevolence, this results not from mere compliance but from integration within moral communities and the exercise of deliberation.

Regarding the third association between time away from work and Factor 3 (Independence), it is possible that decisions based on what professionals "prefer for themselves" can be explained as consequences of poor working conditions. Unhealthy work environments and excessive workloads during the COVID-19 pandemic (in the studied setting) led to workers' physical, mental, and psychological exhaustion, leading them to remove themselves from the workplace²⁶. Furthermore, values, norms, and knowledge were challenged, demanding the workers to adapt to the environment and their conduct in response to unsafe conditions and the work compromised technical foundations²⁷.

Work environments lacking adequate conditions and support and failing to protect workers may encourage more individualistic and self-preserving attitudes, considering that frustrations and insecurities may outweigh collective interests.

Feelings of vulnerability in professional practice, risks of contamination, safety failures, precarious work conditions, and a lack of emotional support intensified challenges that were already present before the pandemic²⁸. A sense of insecurity and fear can be transformative, influenced by experience, where contradictory feelings—such as closeness and distance, professional responsibility, and family commitment—must be reconciled²⁹.

In public health or any institutional setting, the expression of individualism will be impacted by the objective characteristics of the environment (e.g., physical structure, management style, organizational scale) and by interactions among individuals (e.g., socio-affective and psychosocial relationships). Working conditions are influenced by both external and organizational contexts, encompassing the cultural exchange among individuals, organizations, and communities, where shared values, altruism, expectations, and demands shape workers' motivation and satisfaction³⁰.

Individualism simultaneously serves as both a cause and a consequence of well-being, motivation, and (in)effective work performance³⁰.

A precarious work environment leads to job abandonment, high turnover, desertion, absenteeism, and job dissatisfaction. These outcomes stem from environments lacking interventions to improve the ethical climate, which, in turn, negatively impacts professionals' quality of life^{8,31}.

The fourth and final association identified a relationship between the variable "living in the town" and the value placed on individualism, which obtained the lowest mean scores. In this context, professionals tend to be guided by their personal ethics. However, making conclusions about this association solely based on this study is premature. Hence, we cannot state that this association reflects negative or egocentric views (a personal belief in individualism) or criticism grounded in an understanding of the context (a critique of the individualism observed in the environment). The latter interpretation aligns more closely with the fact that participants live in the town and aspire to cultivate more developed ethical climates.

On the other hand, to understand which factors influence this correlation and impact the ethical climate in the workplace, it is important to consider other external factors that may be interconnected. For instance, habitability is increasingly becoming a primary factor in people's lives, enhancing health and quality of life³², alleviating traffic issues in metropolitan areas, and addressing income inequality, which often pushes workers to live in peripheral areas.

One of this study's contributions is the identification of ECQ factors that directly impact the work environment of healthcare professionals, emphasizing challenges in workplace management and the collaborative integration of interventions involving health staff, local coordination, and municipal management. An organization governed by a conducive ethical climate is more likely to foster the expression of citizenship among its workers^{11,33}.

Study Limitations

This is a cross-sectional study, and the fact that the assessment was performed during the COVID-19 pandemic may reflect the conflicting context of the crisis. Additionally, the potential for generalization is limited by the specific locality of the sample.

CONCLUSION

This study confirmed that EC can be assessed in PHC settings, revealing a shared perception that occasionally diverges from individual viewpoints. In summary, a sense of duty prevails above all other concerns, followed by a strong sense of collective responsibility.

The correlations reveal environments strongly aligned with principles and rules as the foundation of healthcare professionals' practices, with benevolence as an essential requirement for quality care delivery. Individualism exerts a limited influence, appearing primarily in cases of work absence and when the worker resides in the town.

The application of the ECQ in the PHC context yielded novel results, indicating that further studies should be conducted in other PHC settings or in combination with additional instruments. While the ethical climate centers around three main factors, it is more firmly rooted in principles and rules compared to other work environments. Moreover, external factors such as inadequate working conditions, systemic crises, and worker illnesses contribute to its instability. These findings could be further explored to analyze environments conducive to care delivery, fostering more effective policies for worker health and well-being.

REFERENCES

1. Fernandez M, Lotta G, Corrêa M. Challenges for Primary Health Care in Brazil: an analysis on the labor of community health workers during a COVID-19 pandemic. *Trab. educ. saúde*. 2021 [cited 2021 Aug 06]; 19:e00321153. DOI: <https://doi.org/10.1590/1981-7746-sol00321>.
2. Pereira LEM, Ramos FRS, Brehmer LCF, Diaz PS. Healthy work environment in primary health care: integrative literature review. *Rev. baiana enferm*. 2022 [cited 2023 Jun 19]; 36:38084. DOI: <https://doi.org/10.18471/rbe.v36.38084>.
3. Tasca R, Massuda A, Carvalho WM, Buchweitz C, Harzheim E. Recomendações para o fortalecimento da atenção primária à saúde no Brasil. *Rev Panam Salud Publica*. 2020 [cited 2023 Jun 18]; 44:e4. DOI: <https://doi.org/10.26633/RPSP.2020.4>.
4. Almeida JG, Porto JB. Ethical climate index: evidence of validity of the Brazilian version. *Human and Social Management*. 2019 [cited 2022 Dec 18]; 20(3):eRAMG190030. DOI: <https://doi.org/10.1590/1678-6971/eRAMG190030>.
5. Ribeiro PECD, Porto JB, Puente-Palacios K, Resende MM. Ethical Climate within Organizations: Validity Evidence of a Measure's Scale. *Temas psicol*. 2016 [cited 2022 Dec 18]; 24(2):415-25. DOI: <http://doi.org/10.9788/TP2016.2-02>.
6. Dalmolin GL, Lanes TC, Bernardi CMS, Ramos FRS. Conceptual framework for the ethical climate in health professionals. *Nurs Ethics*. 2022 [cited 2023 Jun 19]; 29(5):1174-85. DOI: <http://doi.org/10.1177/09697330221075741>.
7. Lanes TC, Dalmolin GL, Silva AM, Ramos FRS, Olson LL. Cross-cultural adaptation of the Hospital Ethical Climate Survey to Brazil. *J Nurs Meas*. 2022 [cited 2023 Jun 19]; 31(2):148-62. DOI: <http://doi.org/10.1891/JNM-2021-0036>.
8. Van den Bulcke B, Metaxa V, Reyners AK, Rusinova K, Jensen HI, Malmgren J, et al. Ethical climate and intention to leave among critical care clinicians: an observational study in 68 intensive care units across Europe and the United States. *Intensive Care Med*. 2020 [cited 2023 Jun 18]; 46(1):46-56. DOI: <https://doi.org/10.1007/s00134-019-05829-1>.
9. Tei-Tominaga M, Nakanish M. Factors related to turnover intentions and work-related injuries and accidents among professional caregivers: a cross-sectional questionnaire study. *Environ Health Prev Med*. 2020 [cited 2023 Jun 18]; 25:24. DOI: <https://doi.org/10.1186/s12199-020-00863-8>.
10. Dalmolin GL, Lanes TC, Facin MB, Schutz TC, Andolhe R, Ramos FRS. Estratégias para promoção do clima ético positivo sob a perspectiva de enfermeiros hospitalares. *Rev. enferm. UERJ*. 2023 [cited 2024 Mar 23]; 31(1):e71003. DOI: <https://doi.org/10.12957/reuerj.2023.71003>.
11. Aloustani S, Atashzadeh-Shoorideh F, Zagheri-Tafreshi M, Nasiri M, Barkhordari-Sharifabad M, Skerrett V. Association between ethical leadership, ethical climate and organizational citizenship behavior from nurses' perspective: a descriptive correlational study. *BMC Nurs*. 2020 [cited 2022 Dec 18]; 19:15. DOI: <https://doi.org/10.1186/s12912-020-0408-1>.
12. Tehranineshat B, Torabizadeh C, Bijani M. A study of the relationship between professional values and ethical climate and nurses' professional quality of life in Iran. *Int J Nurs Sci*. 2020 [cited 2023 Jun 18]; 7(3):313-19. DOI: <https://doi.org/10.1016/j.ijnss.2020.06.001>.
13. IBM Corp. Released 2017. IBM SPSS Statistics for Windows, Version 25.0. Armonk, NY: IBM Corp.
14. Callegari-Jacques SM. Bioestatística: princípios e aplicações. 2ª reimpressão. Porto Alegre: Artmed; 2005.
15. Paraizo CB, Bégin L. Organizational Ethics in Health Settings. *Ciênc. saúde coletiva*. 2020 [cited 2021 Dec 13]; 25(1):251-9. DOI: <https://doi.org/10.1590/1413-81232020251.28342019>.
16. Ventura PFEV, Silva DM, Alves M. Organizational culture in nursing work: influences in adherence to quality and safety practices. *REME - Rev Min Enferm*. 2020 [cited 2021 Dec 10]; 24:e-1330. DOI: <https://doi.org/10.5935/1415-2762.20200067>.
17. Ramos FRS, Brehmer LCF, Dalmolin GL, Silveira LR, Schneider DG, Vargas MAO. Association between moral distress and supporting elements of moral deliberation in nurses. *Rev. Latino-Am. Enfermagem*. 2020 [cited 2023 Jan 09]; 28:e3332. DOI: <http://dx.doi.org/10.1590/1518-8345.3990.3332>.
18. Robichaux C, Grace P, Bartlett J, Stokes F, Saulo Lewis M, Turner M. Ethics education for nurses: foundations for an integrated curriculum. *J Nurs Educ*. 2022 [cited 2023 Jun 19]; 61(3):123-30. DOI: <http://doi.org/10.3928/01484834-20220109-02>.
19. Okumoto A, Yoneyama S, Miyata C, Kinoshita A. The relationship between hospital ethical climate and continuing education in nursing ethics. *PLoS One*. 2022 [cited 2023 Jun 19]; 17(7):e0269034. DOI: <http://doi.org/10.1371/journal.pone.0269034>.
20. Haahr A, Norlyk A, Martinsen B, Dreyer P. Nurses experiences of ethical dilemmas: a review. *Nursing ethics*. 2020 [cited 2023 Jun 19]; 27(1):258-72. DOI: <https://doi.org/10.1177/0969733019832941>.
21. Enzweiler FC, Warmling CM, Pires FS. O acolhimento e o trabalho de enfermeiros na estratégia de Saúde da família: práticas de cuidado. *Saberes Plurais*. 2020 [cited 2023 Jun 19]; 4(2):129-32. DOI: <http://doi.org/10.54909/sp.v4i2.109879>.
22. Morley G, Sankary LR. Re-examining the relationship between moral distress and moral agency in nursing. *Nurs Philos*. 2023 [cited 2023 Jun 19]; 25(1):e12419. DOI: <https://doi.org/10.1111/nup.12419>.
23. Schutz TC, Lanes TC, Villagran CA, Bernardi CMS, Dalmolin GL. Fatores associados ao clima ético em ambiente hospitalar. *Rsd*. 2021 [cited 2023 Mar 22]; 10(2):e36910212577. DOI: <http://dx.doi.org/10.33448/rsd-v10i2.12577>.
24. Silva-Costa A, Griep RH, Rotenberg L. Percepção de risco de adoecimento por COVID-19 e depressão, ansiedade e estresse entre trabalhadores de unidades de saúde. *Cad Saúde Pública*. 2022 [cited 2023 Mar 23]; 38(3):e00198321. DOI: <https://doi.org/10.1590/0102-311X00198321>.
25. Hughes MT, Rushton CH. Ethics and Well-Being: The health professions and the COVID-19 pandemic. *Acad Med*. 2022 [cited 2023 Dec 23]; 7(3S):S98-103. DOI: <http://doi.org/10.1097/ACM.0000000000004524>.
26. Lima E. Estudo aponta trabalhadores da saúde mais expostos à Covid-19. Portal Fiocruz: 2022 [cited 2022 Mar 18]. Available from: <https://portal.fiocruz.br/noticia/estudo-aponta-trabalhadores-da-saude-mais-expostos-covid-19>.
27. Monteiro WF, Ferreira DS, Lima KJV, Tavares IC, Ramos FRS. The organization of healthcare work in the light of ergology: experiences in the COVID-19 pandemic. *Rev Esc Enferm USP*. 2023 [cited 2023 Mar 23]; 57:e20220261. DOI: <https://doi.org/10.1590/1980-220X-REEUSP-2022-0261en>.

28. Queiroz AM, Sousa AR, Moreira WC, Nóbrega MPSS, Santos MB, Barbosa LJ, et al. The novel COVID-19: impacts on nursing professionals' mental health? *Acta Paul Enferm.* 2021 [cited 2023 Jun 19]; 34:eAPE02523. DOI: <https://doi.org/10.37689/acta-ape/2021AO02523>.
29. Ramos FRS, Silva DMGV, Lima KJV, Monteiro WF, Sachett JAG, Monteiro W. Path of fear: experiences of health professionals in the fight against COVID-19. *Nurs Inq.* 2023 [cited 2023 Jun 19]; 30(4):e12578. DOI: <https://doi.org/10.1111/nin.12578>.
30. Antonietti L, Esandi ME, Duré I, Cho M, Ortiz Z. Condiciones y medio ambiente de trabajo en salud: modelo conceptual para áreas remotas y rurales *Rev Panam Salud Publica.* 2020 [cited 2022 Dec 18]; 44:e111. DOI: <https://doi.org/10.26633/RPSP.2020.111>.
31. Fradelos EC, Alikari V, Tsarakis K, Papathanasiou I, Tzavella F, Papagiannis D, et al. Assessment of psychological distress in end stage renal disease: is it spirituality related? *Med Pharm Rep.* 2021 [cited 2022 Dec 18]; 94(1):79-87. DOI: <http://doi.org/10.15386/mpr-1623>.
32. Marques, V. Cinco grandes motivos para viver perto do trabalho. *Rede Jornal Contábil.* 2020 [cited 2022 Dec 18]. Available from: <https://www.jornalcontabil.com.br/5-grandes-motivos-para-viver-perto-do-trabalho/>.
33. Jiang W, Zhao X, Jiang J, Zhang H, Sun S, Li X. The association between perceived hospital ethical climate and self-evaluated care quality for COVID-19 patients: the mediating role of ethical sensitivity among Chinese anti-pandemic nurses. *BMC Med Ethics.* 2021 [cited 2022 Dec 18]; 22(1):144. DOI: <https://doi.org/10.1186/s12910-021-00713-4>.

Author's contributions

Conceptualization, L.E.M.P., L.C.F.B. and F.R.S.R.; methodology, L.E.M.P., L.C.F.B. and F.R.S.R.; software, L.E.M.P., L.C.F.B. and F.R.S.R.; validation, L.E.M.P., L.C.F.B., F.R.S.R. and G.L.D.; formal analysis, L.E.M.P., L.C.F.B., F.R.S.R., G.L.D. and P.O.B; investigation: L.E.M.P., L.C.F.B. and F.R.S.R.; resources, L.E.M.P., L.C.F.B., F.R.S.R. and G.L.D.; data curation, L.E.M.P., L.C.F.B., F.R.S.R. and G.L.D.; manuscript writing, L.E.M.P., L.C.F.B. and F.R.S.R.; writing – review and editing, L.E.M.P., L.C.F.B., F.R.S.R., G.L.D. and P.O.B; visualization, L.E.M.P. and F.R.S.R.; supervision, L.E.M.P. and F.R.S.R.; project administration, L.E.M.P., L.C.F.B. and F.R.S.R.; financing acquisition, L.E.M.P. and F.R.S.R. All authors read and agreed with the published version of the manuscript.