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ORIGINAL

Between technology and care: keys to humanizing healthcare

Entre la tecnología y el cuidado: claves para humanizar la atención sanitaria

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ABSTRACT

This study analyzes the importance of humanization in healthcare, particularly in high-pressure contexts such as the COVID-19 pandemic. Through a critical review, it identifies the factors that hinder patient-centered care, including work overload, mechanized routines, depersonalized interactions, excessive reliance on technology, and structural deficiencies in health systems. These elements directly impact the quality of care and contribute to dehumanizing practices, including obstetric violence. The study highlights the key role of nursing professionals as agents of humanized care and emotional support in times of crisis, emphasizing the need to strengthen their skills in communication, empathy, and holistic attention. It also stresses the urgency of incorporating humanistic content in the education of future healthcare professionals from the earliest stages of university training, using active methodologies, clinical simulation, interdisciplinary projects, volunteerism, and reflective storytelling. Successful experiences from Latin American and European universities are presented, demonstrating that innovative and collaborative strategies can foster the development of ethical, sensitive, and patient-centered professionals. The study concludes that humanization must be adopted as a cross-cutting principle within both healthcare systems and educational institutions in order to ensure more respectful, compassionate, and transformative care that promotes the physical, emotional, and social well-being of individuals.

Keywords: humanization; healthcare; professional training; dehumanization.

RESUMEN

El presente estudio analiza la importancia de la humanización en el cuidado de la salud, especialmente en contextos de alta presión como el vivido durante la pandemia de COVID-19. A partir de una revisión crítica, se identifican los factores que obstaculizan una atención centrada en el paciente, tales como la sobrecarga laboral, la mecanización del cuidado, la despersonalización del trato, la implementación excesiva de tecnologías y las condiciones estructurales deficientes del sistema de salud. Se examina cómo estos elementos inciden directamente en la calidad del cuidado y favorecen prácticas deshumanizantes, incluyendo la violencia obstétrica. El estudio resalta el papel clave de los profesionales de enfermería como agentes de humanización y contención emocional en escenarios de crisis, y destaca la necesidad de fortalecer sus competencias en comunicación, empatía y atención integral. Asimismo, se aborda la urgencia de integrar contenidos humanistas en la formación de los futuros profesionales de salud desde los primeros niveles universitarios, mediante metodologías activas, simulación clínica, proyectos interdisciplinarios, voluntariado y narrativas reflexivas. Se presentan experiencias exitosas desarrolladas en distintas universidades de América Latina y Europa, las cuales demuestran que la implementación de estrategias innovadoras y colaborativas favorece la formación de profesionales sensibles, éticos y comprometidos con la dignidad del paciente. La investigación concluye que la humanización debe asumirse como eje transversal en los sistemas de salud y educativos, con el fin de garantizar una atención más humana, respetuosa y transformadora que contribuya al bienestar físico, emocional y social de las personas.

Palabras clave: humanización; atención en salud; formación profesional; deshumanización.

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INTRODUCTION

Waldow and Borges [1] conceive humanization as the process of "becoming human, granting a human condition, humanizing," a concept that in the field of health acquires special relevance because it implies dignified, empathetic treatment adapted to the particular needs of each person. Along these same lines, Ávila-Morales [2] argues that dehumanization in medicine arises when the patient is reduced to a clinical object, losing their integral dimension as a subject. Humanizing care therefore means recognizing the other in their uniqueness and considering their history, emotions, and social context as fundamental elements of the care process.

Nevertheless, this approach faces multiple obstacles within contemporary healthcare environments, which are characterized by the fast pace of care delivery, the increasing incorporation of medical technologies, the standardization of procedures, and the rigidity of institutional protocols. These conditions, although necessary to guarantee clinical efficiency and safety, tend to push the subjective dimension of care into the background. On many occasions, what should be a profoundly human act is limited by the pressure of routine tasks, administrative records, and the multiple functions that the health professional must assume. This tension between the operational and the affective has been widely documented, showing that care considered "intangible," such as active listening, empathetic presence, or emotional support, tends to be underestimated in daily practice [3,4].

Likewise, although technological advances have enabled notable progress in diagnostic precision, disease monitoring, and treatment effectiveness, they have also led to a certain depersonalization in the healthcare relationship. As Markowitz et al. [5] note, in high-pressure contexts such as the COVID-19 pandemic, dehumanization processes that affect the perception of the patient and health personnel may intensify. Similarly, Abuabara [6] warns that the health crisis showed how health systems can prioritize efficiency over human dignity. In this sense, the use of devices, clinical algorithms, and computerized systems has created a constant mediation that can interrupt direct and affective contact between the professional and the patient.

For this reason, it is essential that university education for future health professionals includes not only technical mastery of these tools, but also a solid ethical, communicational, and humanistic foundation that allows them to integrate technology without neglecting the essence of care. Accordingly, Létourneau et al. [7] highlight that humanized care constitutes a fundamental competency that must be developed progressively during professional training. Likewise, recent studies show that patient experience improves significantly when person-centered care practices are integrated [8,9].

In this context, a growing concern has emerged regarding the strengthening of the human dimension in higher education, especially in health-related programs. Humanizing educational institutions implies transforming organizational culture and promoting learning environments based on respect, inclusion, and comprehensive well-being. Henning et al. [10] highlight the importance of building educational spaces that value well-being, the student experience, and the development of social and communication skills. Complementing this perspective, Markey et al. [11] propose that humanized education is grounded in pedagogical relationships characterized by empathy, mutual support, and reciprocal respect.

Similarly, recent literature underscores that humanization should not be conceived as an isolated component, but rather as a cross-cutting axis that articulates the curriculum, institutional management, and teaching practices. In this sense, Galván-Villamarín and Díaz [12] highlight the need to implement comprehensive humanization models in medical schools, while Freitas and Ferreira [13] emphasize that training in humanistic values is key to the development of professionals committed to comprehensive care. Likewise, evidence suggests that promoting a culture of care within universities contributes to the training of more sensitive, critical, and socially responsible professionals [14].

Overall, these contributions show that humanization in healthcare constitutes a complex challenge that requires a transformation of both care practices and training processes. Only through a balanced integration between technical competence and human sensitivity will it be possible to respond ethically, empathetically, and effectively to the current demands of the health system [15,16].

METHODS

This research adopts a qualitative approach, supported by an interpretive perspective that

allows for an understanding of the experiences and meanings attributed by the actors involved in care and in health training processes. This approach is justified by the need to explore in depth the perceptions, feelings, and practices related to the humanization of care, especially in scenarios affected by the health crisis, educational transformation, and contemporary institutional dynamics.

The study was conducted under a descriptive-explanatory design, aimed at examining the human dimensions of care from an integrative perspective that encompasses emotional, psychological, ethical, cultural, and educational factors. Through this design, the aim was not only to describe the observed phenomena but also to interpret the structural and relational elements that influence the presence or absence of humanized practices, both in clinical and university educational contexts.

Information collection was carried out through qualitative techniques such as semi-structured interviews, focus groups, and documentary analysis, which made it possible to access personal and collective narratives about the experiences of students, teachers, and health professionals regarding humanized care and dehumanization. Work was conducted with one purposive sample composed of participants from health-related programs, selected for their direct experience in clinical and academic settings.

The information analysis was carried out through a thematic coding process, which made it possible to identify emerging categories related to the humanization of care, the institutional factors that condition it, the emotions present in care processes, and the pedagogical strategies that foster a culture of care from professional training. This analysis was guided by a categorical matrix constructed from the study objectives and the conceptual elements that support the theoretical framework.

Throughout the research process, fundamental ethical principles were maintained, such as informed consent, confidentiality of information, respect for participants' voices, and critical reflection on the researcher's role. Likewise, efforts were made to establish a dialogic and empathetic stance that recognized the value of subjective experiences as a legitimate source of knowledge.

RESULTS

Five main categories emerged from the analysis that reveal the complexities and tensions surrounding the humanization of care, both in clinical and educational contexts. These categories allow for understanding the interaction between the structural, formative, and emotional dimensions that condition the presence or absence of humanized practices in health.

Tension between technology and humanized care

The participants stated that technological progress, although it has improved diagnostic and therapeutic processes, has also fostered a certain emotional disengagement between professionals and patients. This distance is exacerbated when protocols, the mechanization of care, or the excessive use of digital records relegate active listening and interpersonal contact, essential factors of comprehensive care.

Professional burnout and dehumanization

Experiences of physical and emotional exhaustion were identified, especially intensified during the COVID-19 pandemic. Work demands, lack of resources, fear of contagion, and exposure to extreme situations affected the quality of care provided, generating episodes of depersonalization, emotional shielding, and even involuntary indifference toward patients' suffering.

Perceptions about the humanization of care

Both students and professionals pointed out the importance of viewing the patient as an integral being, with biological, emotional, spiritual, and social needs. Practices such as affective accompaniment, empathy, honest communication, and personalized care were valued. However, it was also acknowledged that these practices are considered "intangible" and tend to be relegated in the face of the operational urgencies of the health system.

Need for a humanistic education from the earliest years

The testimonies collected agree that humanization should not be addressed only in the final stage of professional training, but should be incorporated transversally from the first semesters. The need to integrate humanistic content, promote spaces for ethical reflection, and

consolidate student-centered teaching-learning strategies that prioritize critical thinking, effective communication, and self-awareness was highlighted.

Innovative experiences in humanized training

Positive educational experiences were identified, such as the use of clinical simulation with an interdisciplinary approach, the design of experiential learning activities, the use of patient narratives, and collaborative projects such as clown therapy, which contributed to developing in students greater sensitivity toward others, as well as practical skills to act with respect, commitment, and empathy in real scenarios.

DISCUSSION

The findings of this research confirm that the humanization of health care continues to be a complex challenge, especially in contexts marked by structural pressures, technological demands, and institutional limitations. Although there is a positive valuation of humanized care among professionals and students, the practical application of these principles faces multiple obstacles, both in academic training and in clinical care. The literature on the pandemic has also described processes of intergroup dehumanization and dehumanization toward health personnel in crisis scenarios [17,18].

First, the tension between technological advancement and humanized care becomes evident when digital resources, automated protocols, and operational efficiency demands reduce the time and quality of interpersonal connection with the patient. This dissociation between the technical and the human directly affects the user's experience, who often perceives impersonal or indifferent treatment, which can negatively influence their recovery process.

On the other hand, the emotional and physical exhaustion of health professionals, particularly during the pandemic, intensified phenomena of depersonalization and emotional shielding. Compassion fatigue, burnout, overlap with depressive symptoms, moral injury, psychological distress, and the need for self-care and resilience have been documented in healthcare professionals during and before the crisis [19-32]. Fear of contagion, work overload, resource scarcity, and constant uncertainty also shaped especially complex clinical and ethical scenarios, including issues of staff protection, management of infectious cases, and allocation of critical resources [33-39]. These factors affected not only the quality of care but also the well-being of the professionals themselves, highlighting the need for institutional policies aimed at caring for those who care.

Regarding academic training, the results indicate a strong consensus on the need to incorporate the principles of humanization from the first semesters. Humanistic competencies must be integrated transversally, with emphasis on empathy, ethics, assertive communication, and self-reflection. It is not enough to include humanistic content in a theoretical or isolated manner; it is essential that these be articulated with pedagogical practices that allow students to experience real or simulated situations, reflect critically on them, and take advantage of collaborative learning modalities [40].

Likewise, the identification of innovative experiences, such as clown therapy, storytelling, volunteering, and interdisciplinary simulation, demonstrated the transformative potential of these formative strategies. These practices not only strengthen clinical and communication skills, but also foster the development of social awareness, a compassionate gaze toward the suffering of others, and an ethical commitment to human dignity. The literature on clown therapy has also linked this strategy with the humanization of care [41].

Finally, the discussion on dehumanization reveals that apparently routine practices can become aggressive, objectifying, or negligent, profoundly affecting the patient's experience. Obstetric violence, in particular, is among the most alarming forms of institutionalized dehumanization, compromising women's fundamental rights during a moment in life that is among the most significant [42-44]. This highlights the urgency of making these situations visible, raising awareness among healthcare teams, and establishing training and regulatory measures that guarantee dignified, respectful, and comprehensive care.

Taken together, the findings reinforce the need to rethink the model of care and health education, placing them at the service of a more human, ethical, and relational vision of care. Humanization, rather than an isolated competence, must be a guiding principle of all professional and educational practice in the health field.

CONCLUSIONS

This research showed that the humanization of health care constitutes an essential component for guaranteeing comprehensive, ethical care centered on patient dignity. Despite its recognized importance, its implementation is compromised by multiple factors, including work overload, the indiscriminate use of technologies, institutional operational demands, and the lack of cross-cutting training in humanistic competencies. These elements, far from being isolated, shape an environment that can foster depersonalized practices and, in extreme cases, forms of institutionalized violence, such as obstetric violence.

During the COVID-19 pandemic, these challenges intensified, revealing profound limitations in health systems and, at the same time, reaffirming the urgent need for empathetic, compassionate, and respectful care. In this context, nursing personnel played a key role, serving as the human link between the system and the patient. Their performance highlighted the importance of integrating the technical with the human as the axis of truly transformative care.

In the educational sphere, the need was identified to reformulate curricular plans in health programs, prioritizing the incorporation of teaching strategies that promote the experience of and reflection on humanized care from the first semesters. Experiences such as interdisciplinary clinical simulation, volunteering, storytelling, and integrative projects have proven effective in fostering critical thinking, empathy, and the ethical commitment of future professionals.

In summary, humanization should not be conceived as an optional complement to health care, but as a cross-cutting principle that guides both clinical practice and academic training. Only through a structural and cultural transformation of healthcare and educational spaces will it be possible to build truly human care, capable of responding to people's biopsychosocial and emotional needs, promoting their well-being, autonomy, and dignity at all times.

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