

Should Nursing Be Polymathic in the Hypermodern Era? Higher Education Training in Nursing and the Praxis of Care in Times of Hybridization

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Contemporary societies are currently situated in what is known as the hypermodern era, characterized by the dominance of the present, hyperindividualism, and hyperconsumption. These dynamics erode the dimensions of silence and transcendence in human experience. ^(1, 2) This sociocultural environment imposes new ethical and epistemic tensions, especially in professions such as Nursing, which have traditionally been linked to care and relationality.

In this context, the figure of the polymath emerges as essential from ethical, epistemic, and political standpoints for a better understanding of and response to local and global challenges. As disciplinary boundaries dissolve, the human body becomes increasingly entangled with machines, and knowledge can no longer be compartmentalized; nursing is being pushed to transcend its traditional role.

A polymath is a person with deep knowledge in multiple disciplines, capable of integrating diverse forms of knowledge to understand and solve complex problems. Root-Bernstein states that polymathy is associated with systems thinking, creativity, and interdisciplinary transfer. ⁽³⁾ In contemporary contexts, it is valued for its capacity for transdisciplinary innovation and adaptability. ⁽⁴⁾ The literature highlights that polymathic education can strengthen scientific research, education, and transformational leadership, challenging the excessive specialization of knowledge. ⁽⁵⁾

Throughout history, highly influential figures have embodied polymathy, such as Leonardo da Vinci and Hypatia of Alexandria, a 4th-century philosopher and mathematician. ⁽⁶⁾ One figure not highlighted sufficiently is Florence Nightingale, a pioneer of modern nursing and a 19th-century statistician, ⁽⁷⁾ who exemplifies the application of polymathy to care and science.

As a hybrid subject, the polymath nurse represents a response to contemporary complexity: she is a caregiver, scientist, philosopher, technologist, and artist. This figure is not a utopia but an urgency. As Haraway notes in her cyborg metaphor, a new ontology emerges that breaks with dualism and redefines the human through the intersection of the biological, technological, and symbolic. ⁽⁸⁾

This context invites a qualitative leap beyond linear and reductionist paradigms, encouraging the observation of emerging realities through a connection lens, employing rhizomatic thinking. This type of thinking can connect diverse forms of knowledge and generate new understandings of care, which directly impact the quality of attention provided to individuals, families, and communities. ^(9, 10)

Rethinking Nursing goes hand in hand with improving care. According to Ruíz Muelle, integrating transdisciplinary competencies in nursing education enhances clinical decision-making and promotes comprehensive care. ⁽¹¹⁾ Inter- and transdisciplinary training in Nursing facilitates teamwork by equipping nurses with theoretical and practical tools that allow them to interact effectively with specialists from other fields. This ability improves coordination among

interprofessional teams, thus avoiding fragmentation in healthcare and promoting continuity of care.

This perspective promotes a holistic understanding of individuals, families, and communities by recognizing their biological, emotional, social, cultural, and spiritual dimensions. Thus, social determinants, family relationships, community contexts, and life histories are recognized as fundamental to health and well-being within the health-illness-care continuum.

Today, the polymath nurse must redefine the concept of "humanized care" to incorporate bodily technologization and the virtualization of relationships. Care remains fundamental knowledge and effect in the cyborg and artificial intelligence era. However, it also includes competencies such as coding, data interpretation, and the design of interfaces between diverse knowledge systems.⁽¹²⁾

The COVID-19 pandemic revealed the need for professionals capable of acting across multiple fronts—clinical, community, technological, and communicational. In this context, nurses led innovative processes, designed protocols, and managed collective emotions, demonstrating polymathy. Analyses of nursing activity during the health crisis showed that those with multidisciplinary training offered more adaptive and resilient responses.^(13, 14) This evidence reinforces the urgency of training nurses with a comprehensive vision, capable of thinking and acting beyond traditional boundaries.

As Berg argues regarding the ethics of care in technological environments, the discipline of Nursing must develop philosophical and critical competencies to avoid being subordinated by technique.⁽¹⁵⁾ Polymathy constitutes a form of resistance by promoting a perspective transcending technical specialization. It enables a critical viewpoint integrating philosophical, ethical, and posthumanist knowledge. This integration enhances the capacity to question and reconfigure practices and reflections across all areas of nursing development, ensuring that technology enhances—rather than replaces—the human relationship in care.

From this standpoint, nursing education must radically transform to make way for this new figure. It is not merely a matter of increasing the number of subjects or content but of redesigning curricula through a transdisciplinary logic. According to Muñoz-García, workshops on critical thinking, art, and technology in nursing education enhance creativity, empathy, and the ability to solve complex problems.⁽¹⁶⁾

In this setting, artistic sensitivity becomes a tool to generate meaningful connections, alleviate suffering, and dignify the person's experience. In his study on art and care, Matos observed that aesthetic interventions improve individuals' emotional well-being and strengthen the helping relationship.⁽¹⁷⁾

The polymath nurse is also a political figure. In a world marked by structural inequalities, ecological crises, and geopolitical conflicts, care cannot be neutral nor disconnected from respecting and protecting human rights.⁽¹⁸⁾

Polymathy also implies a different relationship with time. In a hyper-accelerated world, the polymath nurse cultivates reflection and rhizomatic thinking while possessing a sincere gaze and the ability to listen with the heart.⁽¹⁹⁾ This alternative temporality is subversive, challenging the quantitative criteria of productivity and performance. Thus, the ability to inhabit the time of the other becomes a radical act of empathy.⁽²⁰⁾

In conclusion, the figure of the polymath nurse emerges as a dynamic and open construction, constantly moving among bodies of knowledge, disciplines, and sensibilities, shaped and transformed by engagement with the complexity of contemporary challenges. In a world fragmented by knowledge silos, technological acceleration, and the precarization of human bonds, the polymath nurse offers an ethical and political response capable of articulating critical thinking, aesthetic sensitivity, and a commitment to situated care.

Bibliographical references

1. Flores Olague RG. El lugar del silencio en la hipermodernidad desde el pensamiento de Gilles Lipovetsky y Raimon Panikkar. *Rev Filos Univ Costa Rica*. 2024;63(167):71-82. Available from: <https://revistas.ucr.ac.cr/index.php/0filosofia/article/download/59770/62800/285433>
2. Roult R, Pronovost G, Martineau F. Using Gilles Lipovetsky's concepts to frame leisure studies in the hypermodern age. *Int J Sociol Leis*. 2022;5(2):1-18. doi: 10.1007/s41978-021-00090-7
3. Root-Bernstein M, Root-Bernstein R. Polymathy among Nobel laureates as a creative strategy. *Creativity Research Journal*. 2022;34(2):93-112. doi:10.1080/10400419.2022.2051294
4. Araki M, Cotellessa A. Creative polymathy and the COVID-19 crisis. *Front Psychol*. 2020;11:601508. doi: 10.3389/fpsyg.2020.601508
5. Corzo Álvarez C. Proposal of new definition of polymaths based on a review of today's context to develop this profile [Master's Thesis]. Bad Honnef, Germany: International University of Applied Sciences; 2023.
6. Waithe ME. Hypatia of Alexandria. In: Waithe ME, editor. *A History of Women Philosophers*. Vol. 1. Dordrecht, Netherlands: Springer; 1987. p. 169-195. doi:10.1007/978-94-009-3497-9_10
7. Allen DH. The Nightingale Legacy. *Clin J Oncol Nurs*. 2020;24(5):1-2. doi: 10.1188/20.CJON.S2.5-6
8. Haraway D. *Staying with the Trouble: Making Kin in the Chthulucene*. Durham, United Kingdom: Duke University Press; 2016.
9. Notarnicola I, Lommi M, Ivziku D, Carrodano S, Rocco G, Stievano A. The Nursing Theory of Complex Adaptive Systems: A New Paradigm for Nursing. *Healthcare (Basel)*. 2024;12(19):1997. doi:10.3390/healthcare12191997
10. Deleuze G, Guattari F. *Mil mesetas: capitalismo y esquizofrenia*. Valencia, Spain: Pre-Textos; 2004.
11. Guanter-Peris L, Albuquerque-Medina E, Solà-Pola M, Pla M. Towards a set of competencies in palliative care nursing in Spain: what's getting in the way of consensus? *BMC Palliat Care*. 2024;23(1):41. doi:10.1186/s12904-024-01359-w
12. Ronquillo C, Topaz M, Pruinelli L, Peltonen LM, Nibber R. Competency recommendations for advancing nursing informatics in the next decade: International survey results. In: Murphy J, Goossen W, Weber P, editores. *Forecasting Informatics Competencies for Nurses in the Future of Connected Health*. Amsterdam, Netherlands: IOS Press; 2017, p. 119-129. doi: 10.3233/978-1-61499-738-2-119

13. Al Thobaity A, Alshammari F, Alshammari E. Nurses' experience of COVID-19 response in Saudi Arabia: A qualitative study. *Nurs Open*. 2022;9(1):700-708.
14. Peter E, Liaschenko J. Moral agency and nursing practice: Lessons from the pandemic. *Nurs Ethics*. 2022;29(2):265-275.
15. Berg M, Mol A. Ethics of care in technology-mediated healthcare practices. *Scand J Caring Sci*. 2022;36(1):5-12. doi:10.1111/scs.13186
16. Muñoz-García M, López-López M, Carrera MB, Rodríguez-Paz M, Cañal P. Creativity and critical thinking in nursing education: An exploratory study. *Nurse Educ Pract*. 2021;50:102944.
17. Matos F, Costa P, Ribeiro E, Henriques MA. Arts in health and nursing practice: A mixed-methods systematic review. *Int J Environ Res Public Health*. 2023;20(3):2271.
18. Ramírez-Pereira M. Enfermería por la defensa y protección de los derechos humanos. *Cuid. Enferm. Educ. Salud* [Internet]. 2024 [cited 2025 may 25];9:2462. doi:10.15443/ceyes.2014.2462
19. Pielas RJ. *Methodology of the Heart: Evoking Academic and Daily Life*. Walnut Creek: AltaMira Press; 2004.
20. Hutchison BL, White S, Thompson M. The art of slowing down: Temporalities of care in nursing practice. *Nurs Inq*. 2020;27(2):e12332.