

## EDITORIAL

### Art and Medicine – A Travel Throughout History and Mystery

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The close relationship between medicine and the arts is indisputable, whether literature, poetry, music, painting, or other forms of artistic expression. Although art and science are traditionally approached as separate fields, there is a critical interdisciplinarity between them. The creative and emotional character of art can, in some way, complement the objectivity of science, allowing for a more holistic and human vision of medicine. The practice of medicine is actually an art. Hippocrates (460 BC - 377 BC), the father of medicine reportedly said, “Wherever the art of Medicine is loved, there is also a love of Humanity.” On the other hand, the father of modern medicine, William Osler, in 1919, reminds us that scientific evidence is important, but not a substitute for a humanistic approach. He said in his last speech, “The practice of medicine is a calling in which your heart will be exercised equally with your head”. We must consider his message and try to reconcile the two perspectives.<sup>(1)</sup>

The relationship between art and medicine is deeply rooted in human history, reflecting a shared concern with the understanding, representation, and care of the human body. From prehistoric anatomical depictions to contemporary medical illustration, art and medicine have evolved in parallel, often influencing one another. In ancient societies, art served not only aesthetic purposes but also educational functions related to health and disease. Sculptures and paintings often reflected empirical observations of the human body, long before the formal establishment of medical science.

The first records of anatomical study drawings date back to the 3rd century BC, produced by Herophilus and Erasistratus, two Greek physicians from the Greek School of Medicine in Alexandria. Later, in the 2nd century AD, the Roman physician Galen dedicated himself to the study and representation of anatomy, contributing to the knowledge in the medical field.<sup>(2)</sup>

On the other hand, ancient Egypt represents one of the

earliest and most sophisticated examples of the integration of art and medicine, as it is documented in papyri such as the *Edwin Smith Papyrus* and the *Ebers Papyrus*. Wall paintings, reliefs, and sculptures frequently depicted physicians, medical instruments, and healing rituals. The precision observed in Egyptian artistic works, particularly in representations of the human body, suggests a strong anatomical awareness from practices such as mummification. Amulets, statues, and symbolic imagery were believed to possess healing powers and were commonly used in medical contexts.<sup>(3)</sup>

During the Renaissance, artists such as da Vinci and Michelangelo conducted anatomical dissections to enhance the realism of their work, producing drawings that also advanced medical understanding. Medical illustration became a formal discipline, bridging scientific accuracy and artistic skill. Andreas Vesalius published *De Humani Corporis Fabrica* (1543), a highly detailed human body compendium, often in allegorical poses.<sup>(2)</sup> The dissections performed by da Vinci allowed him to represent the body with a rigor and precision unprecedented for his time, anticipating knowledge that would only be formally established centuries later. He represented individual parts, bones, muscles and internal organs, as well as the mechanics behind them. His drawings contributed greatly to the advances of science and medicine and in medical education.<sup>(4,5)</sup>

Countless artists have represented the human body and disease, a paradigm of this being *The Anatomy Lesson of Dr. Nicolaes Tulp* (1632) by Rembrandt. In this work, the scientific gaze replaces that of artistic representation, but Rembrandt, by giving the corpse an almost spiritual glow, leads us to reflect on the extent to which the clinical gaze, by objectifying the body, erases the person who once inhabited it. Medicine teaches us to see the body, but it is art that teaches us to see it with a soul.

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In human history, artists have played a crucial role in documenting, and interpreting, medical experiences related to women's and children's health. In *The fetus in the womb* (1511), da Vinci establishes a delicate analogy between human biology and botany, exploring similarities between the development of seeds and human embryos. *The Sick Child* (1885–1886) a work by Edvard Munch portrays a terminally ill child attended by a caregiver, inspired by Munch's memories of his sister's death from tuberculosis. The painting captures the emotional reality of childhood illness, yet it remains deeply connected to medical history. In *Inheritance* (1897-99), Munch depicts a mother holding a child affected by congenital syphilis. This work confronts the biological and emotional consequences of infectious disease transmission from mother to child, while also addressing stigma and suffering. The *Henry Ford Hospital* (1932) it's an autobiographical painting that represents Frida Kahlo's experience of miscarriage and hospitalization. The work explicitly engages with medical imagery, transforming personal reproductive loss into a powerful visual symbol of women's health and emotional trauma. In *The Broken Column* (1944) and *Without Hope* (1945), Kahlo describe her experience of physical and psychological suffering by creating a visual stark and highly personal symbolic language of chronic pain, in a surrealist and deeply emotional representation.

In 2020, the American Association of Medical Colleges (AAMC) asserted that the practice of medicine requires a grounding in humanistic values, principles, and skills. They published *The Fundamental Role of Arts and Humanities in Medical Education*, which resulted from a review of more than 700 works that evaluated the effect of including art in medical education programs. The report found that through active engagement with diverse forms of artistic expression, students can strengthen skills such as observation and visual perception, humility, tolerance, personal reflection, teamwork, empathy, and communication.<sup>(6)</sup> The humanities and any type of creative work offer students the possibility of cultivating their creative dimension, which may favor the development of critical reflection on ambiguity, uncertainty, and the social aspects of clinical practice and improve abilities related to moral and ethical aspects.<sup>(7,8)</sup> Additionally, by stimulating visual thinking strategies and encouraging more in-depth visual analysis, art can facilitate the development of clinical skills and improve patient observation.<sup>(8,9)</sup> In Portugal, medical schools have also begun to integrate art into medical education, notably the Faculty of Medicine and the School of Medicine and Biomedical Sciences of the University of Porto.

According to the 2019 World Health Organization Report, based on more than 3000 studies worldwide, art has a positive impact on treatment outcomes, preventive care, promotion of healthy behaviors, and even the well-being of health care providers. Art therapy is a clinical modality with medically proven benefits, namely in neurological and psychiatric disorders and to support mental health. Art therapy programs may include music, dance, writing, drama, poetry, painting,

and other artistic expressions that promote healing. In this sense art can be medicine.<sup>(10)</sup>

In the era of precision medicine, new technologies, and artificial intelligence, it is easy to forget that the medical act is also an art and that, above all, it continues to be a human encounter. The physician, like the artist, must interpret the invisible, the signs, the silences. For both, the essence is the same: descriptive observation, understanding, empathy, and sensitivity.



**Figure 1 - *The fetus in the womb* (Leonardo da Vinci, c.1511); ROYAL COLLECTION TRUST.**

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