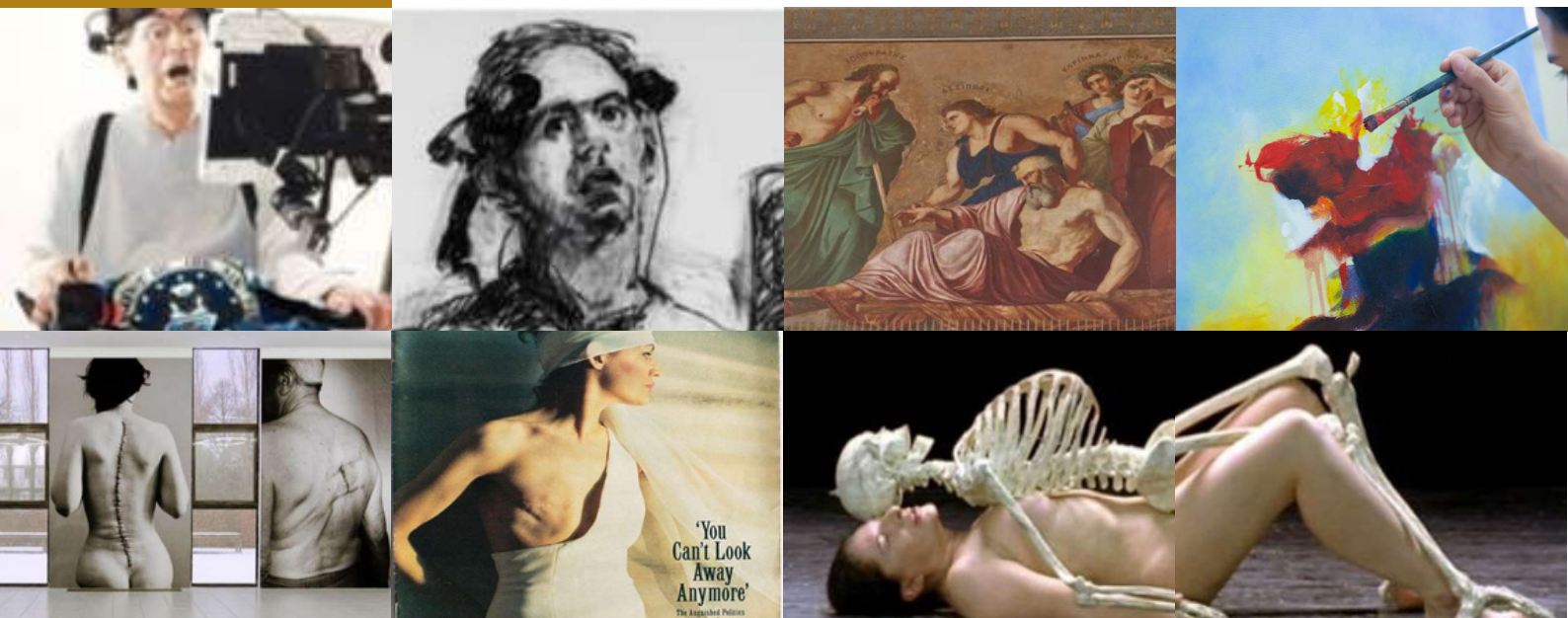




# THE ART

as an Intervention  
Strategy in Medical  
Education

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I dedicate this work to my mother, who introduced me to classical music, and to my uncles Ilona and Antônio Jorge, who took me to my first play.

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Presentation .....	04
1. Introduction.....	06
2. PjBL Proposal for intervention .....	10
3. The uses of Art as an Intervention Strategy: how to do it? ..	13
3.1 Intervention Objective .....	13
3.1.1 Justification .....	13
3.1.2 Target Audience .....	14
3.1.3 Necessary Time .....	14
3.2 1st Stage: Preparation of students/groups .....	14
3.3 2nd Stage: Classroom Intervention .....	14
3.4 3rd Stage: Safety and integrity of the works of art .....	15
3.5 4th Stage: Disclosure .....	15
3.6. 5th Stage: Assumptions for the day of the intervention itself ...	16
3.7 6th Stage: Feedback and Closure .....	16
4. Suggestions of visual arts for possible interventions .....	18
5. Ana Mae Barbosa and Art Education: Interfaces with Medical Education .....	39
6. Final Considerations .....	42
Bibliographic References .....	43

# Presentation

Dear fellow medical professors,

I propose that incorporating art into the academic curriculum has transformative potential. At a time when interdisciplinarity and creativity are increasingly valued, the role of art in higher education gains special relevance. Art not only serves as a vehicle for personal and cultural expression but also as a powerful means for acquiring knowledge and developing transversal skills. Art, with its unique ability to engage humans on emotional and cognitive levels, can significantly enrich medical education.

Using the Project Based Learning (PjBL) methodology as a structural axis, this educational product humbly proposes that medical undergraduate professors use Art as a pedagogical intervention tool, with one possibility being mini-exhibitions of artistic products reflecting medical principles and practices. I believe that the use of art in medical school can enrich both clinical practice and its learning.

This didactic material is composed of six easily readable topics. You will find suggestions for artistic manifestations that can serve as starting points for discussions covering health field themes.

Este material didático composto por seis tópicos e de fácil leitura. Vocês se depararão com sugestões de manifestações artísticas que poderão servir como ponto de partida para discussões que abrangem às temáticas do campo da saúde.

# Introduction

# 1. Introduction

Medicine, in its essence, operates through the algorithmization of signs and symptoms to propose diagnostic hypotheses that, when contextualized within an individual clinical narrative, compose a nosocomial diagnosis. This rationalization is fundamental for risk stratification, selection of diagnostic tests, and choice of therapeutic approaches.

Parallely, artistic manifestations are also rich in signals, although of a different nature. In musical arts, notes form melody and harmony; in literature, words are the basic bricks that, when aligned coherently, convey a story or concept; in pictorial arts, visual signals like shape, color, and composition amalgamate to create an image that can evoke emotions or represent ideas.

Although the signals used in each domain are intrinsically different, the ability to analyze and interpret them is a fundamental skill in both areas. In medicine, a radiologist interprets signals in an MRI image with the same intensity as an art critic analyzes the details of a Caravaggio painting. Both professionals are reading a story through the analysis and synthesis of multiple signals.

This interconnection between medicine and the arts is not only intriguing but also organic. Both involve recognizing and interpreting patterns, the ability to synthesize complex information, and, most importantly, the ability to communicate this synthesis effectively and

impactfully. The medical professional, like the artist, not only detects signals but also interprets, contextualizes, and ultimately communicates a narrative: in the case of medicine, the diagnosis and treatment plan; in the case of the arts, an emotion or idea.

Thus, I propose that we consider more deeply how the use of the arts can benefit our medical students. By training artistic sensitivity and analytical skills, we can contribute to forming more complete and empathetic professionals capable of navigating both technical challenges and the human aspects of medicine.

This connection between the disciplines suggests rich opportunities for interdisciplinary pedagogy, benefiting the comprehensive training of our future doctors.

It is undeniable that medical training substantially focuses on developing technical skills and mastering scientific knowledge. However, medical practice is a deeply human activity that requires, beyond hard skills, a complex set of interpersonal skills, often called soft skills. These include effective communication, empathy, critical reasoning, and the ability to work in a team.

The use of artworks in medical education activities can be an effective pedagogical strategy to address these skills. Art, in its multiple manifestations—whether in literature, painting, music, or theater—allows a rich exploration of the human condition. This exploration offers a valuable forum for discussing and developing soft skills crucial for effective medical practice.

Interest in art helps cultivate a deeper and more nuanced perspective on the complexities of human existence. Analyzing a work of art invites us to adopt multiple viewpoints, question our assumptions,

and explore emotions, both depicted in the work and our own. This has direct implications for developing skills like empathy and understanding, which are fundamental in patient care.

Studies in narrative medicine have already shown that exposure to literature can improve health professionals' ability to understand life experiences different from their own. Similarly, interpreting medical paintings or photographs can help future doctors develop better visual and diagnostic understanding. Music, in turn, can help regulate emotions and stress, critical aspects for any health professional.

The ultimate goal of medicine is the patient's well-being, a goal that transcends the mere application of pharmacological treatments or surgical procedures. It requires the ability to connect with the patient as a whole human being, understanding not only their symptoms but also their concerns, fears, and hopes. Art offers a way to this understanding.

Therefore, I propose incorporating the arts into the medical curriculum as a means to enrich soft skills training. This interdisciplinary approach not only enriches medical education but also aligns with the humanistic goal of cultivating doctors who are technically proficient and interpersonally competent, contributing to more compassionate and effective medical practice.

This reflection offers a backdrop for future discussions and research on how we can continually innovate and improve medical education, considering the comprehensive development of our future health professionals.

# **PjBL Proposal for intervention**

## 2. PjBL Proposal for intervention

The current paradigm of higher education requires deeper and more practical student involvement in the learning process. In this context, active pedagogical methods like PjBL have demonstrated efficacy in promoting skills such as critical thinking, problem-solving, and collaboration.

PjBL is a learner-centered pedagogical approach where the educational process materializes through exploring and solving complex, contextually anchored problems. This method offers a conceptual framework where learning is not merely a transfer of information but an investigative and synthetic activity, engaging students in scenarios that mimic practical and intellectual challenges similar to those found in the professional field (THOMAS, 2000).

In contrast to traditional pedagogical methodologies, often characterized by a transmissive education model, the PjBL methodology emphasizes the practical applicability of knowledge, interdisciplinary collaboration, and metacognitive reflection.

In academic and professional domains as diverse as engineering and education, this pedagogical strategy has been correlated with a significant deepening of specific content understanding and acquiring crucial skills for professional practice. This teaching-

learning modality, therefore, not only fosters the internalization of knowledge but also catalyzes developing practical and cognitive skills essential for professional excellence (KRAJCIK; BLUMENFELD, 2006).

In the medical sphere, which boasts a rich tradition in pedagogical methods anchored in case-based learning and clinical practice, the ground seems exceptionally conducive to incorporating PjBL, as elucidated by Kim (2020). Within this scope, PjBL transcends the category of mere pedagogical technique, emerging as an educational philosophy that positions the learner as the epicenter of their own knowledge acquisition process. Dillenbourg (1999) postulates that this paradigm fosters a high degree of self-management, assigning students the responsibility of directing their own investigations, collaborating interactively with academic peers, and realizing a final solution or product.

In the context of medical education, this skill set is of inestimable value. The diagnostic process, to cite a pertinent example, can be conceptualized as an autonomous project encompassing the systematic collection of data (including patient history, physical assessments, and laboratory analyses), the subsequent interpretation of these data, and finally, the formulation of a rigorously founded treatment plan. Thus, PjBL not only harmonizes but also enriches the complex ecosystem of skills required by medical practice.

# **The uses of art as an intervention strategy: how to do it?**

# 3. The uses of art as an intervention strategy: how to do it?

## 3.1 Intervention Objectives

The objective of the intervention is to explore how future medical professionals can integrate artistic and creative practices into their training and professional practice using the PjBL methodology. The intervention also aims to highlight the intersection between art, medicine, and education, demonstrating how creative projects can enrich the learning process in the medical field through artistic exhibition.

### 3.1.1 Justification

The implementation of the Pedagogical Intervention through artistic exhibition proposed in this product is justified by the need to integrate artistic and creative practices into the training and professional practice of these future doctors. This intervention, using the PjBL methodology, offers a dynamic and interactive environment to explore the intersection between art, medicine, and education.

Art as a pedagogical tool can enhance skills necessary for the future doctor, such as detailed observation, empathy, and effective communication. The artistic exhibition, in turn, provides a space for medical students to develop a more humanized and sensitive perspective, essential qualities in patient care.

### **3.1.2 Target Audience**

Medical undergraduates.

### **3.1.3 Necessary Time**

Approximately 6 (six) class hours and 12 (twelve) extracurricular hours.

## **3.2 First Phase: preparation of students/groups**

It is suggested to start 8 weeks before the event through the following stages, which will be divided according to the peculiarities of each Educational Institution:

- Definition of the team and themes with the participation of organizers, participating students (exhibitors), technical support team (for projectors, sound, etc.), and marketing team.
- Communication with all involved, ensuring they understand their roles and responsibilities.
- Selection of projects, detailing criteria and deadlines. The works can vary between visual representations, presentations, videos, interactive simulations, etc.
- Planning the layout of the space with designated areas for different types of works, ensuring logical flow and visibility.

## **3.3 Second Phase: Classroom Intervention**

It is suggested that there be multiple sessions, ending on the eve of the exhibition, contemplating the following stages:

- Organization of the works to tell a story or follow a thematic progression.

- Installation of projectors and video stations with the necessary audio equipment. Test to ensure everything works perfectly.
- Preparation of clear signage to guide visitors through the different sections of the exhibition.
- Establishment of a space for interaction and feedback, such as a message board or an "ideas and reflections" area.

### **3.4 Third Phase: Safety and integrity of the works of art**

Conduct a brief workshop with students on safety practices to ensure the integrity of visitors and the works.

Designate security personnel in a rotating system, ensuring someone is always supervising the works.

### **3.5 Fourth Phase: Disclosure**

It is suggested to start the disclosure 3 to 4 weeks before the event through the following stages:

- Creation of marketing materials: flyers, banners, and social media posts.
- Use of the institution's communication channels for dissemination (email, official website, social media).
- Publicity by professors to students of other modules during classes.

### **3.6 Fifth Phase: Assumptions for the day of the intervention itself**

- Hold a brief opening ceremony, explaining the exhibition's objective and thanking participants and collaborators.
- Ensure the support team is present at strategic points to help with technical issues and guide visitors.
- Encourage guided interactions, where student exhibitors present their works and discuss the learning process with visitors.

### **3.7 Sixth Phase: Feedback and Closure**

- Provide ways for visitors to leave feedback, either through a comment book or a Google Forms form.
- After the event, gather the entire team for a decompression and feedback session. Discuss what worked, what can be improved, and ideas for future exhibitions.
- Thank all participants, supporters, and visitors, possibly with a follow-up email or a social media post highlighting the event's successes and any insights gained.

# **Suggestions of visual arts for possible interventions**

## 4. Suggestions of visual arts for possible interventions

The use of artworks in teaching activities allows discussing subjects related to interpersonal skills, also known as "soft skills," which will positively impact patient care. Interest in the arts is an interest in the human condition and leads to increased empathy for others. This is the ultimate goal of the medical profession. Here are some examples of art that can be useful.

### **Hippocrates Fresco**

The use of works of art in teaching activities allows the discussion of issues related to interpersonal skills, also called "soft skills", which will positively impact patient care. An interest in the arts is an interest in the human condition and leads to increased empathy for others. This being the ultimate goal of the medical profession. Here are some examples of art that may be useful.

Figure 1: Hippocrates Fresco in the historic building of the University of Athens.



Source: Wikipedia.

The fresco is not just a pictorial representation; it is a visual encapsulation of Hippocratic philosophy and the ethical principles underpinning medical practice. In the images, Hippocrates is often depicted with a serious and contemplative expression, symbolizing the gravity and responsibility that characterize the medical profession. He is commonly shown holding the "Hippocratic Code," an ancient ethical text that serves as the basis for modern medical ethics.

The location of this fresco in a prestigious place within an academic building serves to perpetuate Hippocrates' influence and philosophy in contemporary medical education. It makes a direct appeal to the intersection of art and science, a theme that, as I previously addressed, is of immense relevance to comprehensive medical training. It acts

as a constant reminder for medical students and professionals who pass by, inviting them to reflect on the history and ethics of their profession.

The presence of this fresco in an academic environment like the University of Athens also has a didactic dimension. It serves as a silent but powerful pedagogical tool, reiterating the need for ethical, empathetic medical practice grounded in solid scientific knowledge. Like the artworks discussed earlier, this fresco tells a story—a narrative that emphasizes the indelible role of ethics and integrity in medical practice.

Thus, the Hippocrates fresco serves multiple functions: it is a work of art, a historical record, an ethical symbol, and an educational tool. Its presence enriches the academic environment and provokes continuous reflections on the fundamental principles of medicine, thus acting as a silent but undeniable link between medicine and the arts.

It is in this fusion of art, history, and ethics that lies the true value of the Hippocratic fresco at the University of Athens. He reminds us that medicine is not just a science or a technique, but also an art—a discipline that requires not just knowledge but wisdom, not just skill but empathy.

## **The Good Samaritan**

In this context, the painting "The Good Samaritan" by William Hogarth (Figure 2) offers an eloquent example of the intersection between art and medicine, illustrating how medical cases were, and can still be, artistically documented. Hogarth, an 18th-century British painter and engraver, was known for his incisive representations of the social life and customs of his time. In "The Good Samaritan," he addresses themes ranging from medical ethics to the human condition, capturing in meticulous detail the act of providing medical assistance.

Figure 2: The Good Samaritan.



Source: William Hogarth.

The painting refers to the biblical parable where a Samaritan helps a wounded man by the roadside, a story often cited as an early example of compassionate medical care. Hogarth uses his art to explore the complexities inherent in medical practice, including the need for empathy, skill, and scientific knowledge.

This artwork also serves as a commentary on the medicine of its time, an era when medical practice was not yet structured as we know it today. It highlights the importance of principles that should be intrinsic to medical practice, such as compassion and the willingness to help those in need, regardless of their social status or ethnic origin.

But what makes this work particularly relevant to medical education is its ability to provoke discussion about medical cases in a broader context. The painting can be used as a pedagogical tool to explore not only the technical skills necessary to provide medical care but also the interpersonal skills or "soft skills" crucial for the effectiveness of that care. It challenges the observer to consider the ethical, social, and emotional issues that permeate medical practice.

Indeed, the analysis of artworks like "The Good Samaritan" can offer medical students a unique opportunity to develop a more holistic understanding of medicine. This includes not only the development of clinical observation skills but also the strengthening of interpersonal skills such as empathy and effective communication. Additionally, art has the power to humanize medicine, reminding future doctors that behind every clinical case is a person with a story, feelings, and unique needs.

Thus, the art "The Good Samaritan" serves as a visual testament to the complexity of medical practice, encompassing everything from technique to ethics and human emotions. This work, like many other artistic representations of medical cases, reinforces the idea that medicine is not an isolated science but a discipline deeply interconnected with society and culture, requiring a comprehensive and compassionate understanding of the human condition for its effective practice.

### *It's a pity I didn't get to your case earlier*

The work "It's a pity I didn't get to your case earlier, Mrs. Perkins..." by Darrow Whitney (Figure 3), available in the collections of the Yale University Library, presents a unique opportunity to examine the

intersection of art, ethics, and medical practice within the context of medical education. Whitney, an American cartoonist and illustrator known for his satirical work, uses art to capture and question aspects of the culture and practice of medicine in his time.

Figure 3: Darrow, Whitney, 1909-1999: "It's a pity I didn't get to your case earlier, Mrs. Perkins..."



Source: Yale University Library.

The image, which depicts a doctor lamenting not having gotten to Mrs. Perkins' case earlier, can raise a series of ethical and practical questions. Such questions can range from the timing and efficacy of medical treatment to the broader implications of responsibility and guilt in the context of medical care.

Using this work as didactic material in medical education can foster productive discussions in several areas. Firstly, it can serve as a catalyst for the critical analysis of power dynamics between doctor and patient. The regret expressed by the doctor in the image, despite its irony, could lead to conversations about the importance of open and honest communication with patients, as well as the concept of informed consent.

Secondly, the work can also be used to explore issues of medical ethics, such as professional and personal responsibility. The phrase "It's a pity I didn't get to your case earlier" can be the starting point for discussions about medical negligence, standards of care, and the duty to act promptly and effectively for the benefit of patients.

Moreover, the satirical nature of the work provides fertile ground for debates about the role of social critique in medicine. Through the analysis of this image, students can be encouraged to question and evaluate their own preconceptions and attitudes, not only as future doctors but also as citizens aware of the social complexities that influence health and well-being.

Therefore, integrating works like Darrow Whitney's into the medical curriculum can enrich student training in various ways. By promoting critical thinking, empathy, and ethical awareness, these artistic resources have the potential to complement technical and scientific training, contributing to the formation of more complete and humanistically skilled medical professionals.

## *The Surgeon*

"The Surgeon" by Lucas Van Leyden (Figure 4), a Dutch Renaissance master, provides insight into the medical practice of the time, marked by a mix of science, superstition, and art. The work is especially intriguing for medical students and professionals, as it can serve as a lens through which the historical roots and subsequent transformations in medical practice can be examined.

Figure 4: The Surgeon.



Source: Lucas van Leyden (Netherlandish, Leiden ca. 1494-1533 Leiden).

The painting presents a surgeon in the midst of performing an operation. The focus of the work is not only the surgeon's technical skill but also the human interaction that takes place during the procedure. This duality is relevant to modern medical education, which seeks to harmonize technical competence with interpersonal skills or "soft skills."

Integrating the analysis of this work into the medical curriculum can offer multiple advantages. Firstly, it serves as an educational resource for students about the history of medicine, allowing them to understand how medical practices have evolved over time and how social perceptions of medicine and doctors have been shaped.

The focus of the work on the surgical act and the relationship between the surgeon and the patient opens up space for ethical and technical discussions. Issues such as informed consent, medical responsibility, and the need for effective communication skills can be explored through the interpretation of the work. Additionally, analyzing the technique of the surgeon depicted in the painting could lead to an enriching discussion about the fundamental principles of surgery and how they have evolved into current practices.

The emotional complexity portrayed in the painting can also be a starting point to address the importance of empathy and patient-centered care. This humanization of medical practice helps future doctors remember that medicine is, above all, a profession aimed at human well-being.

## **Battle against Cancer**

In this line of thought, the work "Portrait of the Artist with her Mother, Selma Butter" (Figure 5) by Hannah Wilke, created between 1978 and 1981, is a powerful representation of human suffering and the complexities of the doctor-patient relationship.

Figure 5: Battle against Cancer by Hannah Wilke.



Source: Hannah Wilke (1960)

Hannah Wilke's work offers a valuable opportunity to expand the scope of medical education to include the complex intersection of emotional, psychological, and social factors that contribute to the experience of health and illness. By doing so, it allows for more comprehensive training sensitive to the complexities of human care, aligned with contemporary ideals of truly patient-centered medicine.

When patients observe their deficiencies in an artwork, there is a suspension of these deficiencies in time, giving them some power over them, thus reducing their suffering. The painting has significant potential to enrich medical education, particularly in understanding the psychological and emotional dimensions of patient care.

The act of integrating the observation of such art into medical training offers medical students a new perspective on how patients experience their medical conditions. Art has the ability to "suspend" a moment, allowing both the observer and the subject to reflect on the state in question. This can empower patients, enabling them to have some form of control or at least a deeper understanding of their conditions, which can lead to a subjective reduction in suffering.

In the educational context, analyzing this work can inspire future doctors to consider the power of narrative and representation in the patient experience. This is fundamental to developing a more holistic approach to medical care, which goes beyond simply diagnosing and treating physical symptoms to include psychological and emotional considerations.

Furthermore, the work can be a starting point for deep discussions about the importance of communication skills and empathy in the medical field. The relationship between the artist and her mother in the work can be extrapolated to explore the dynamics of the doctor-patient relationship, particularly in terms of vulnerability, trust, and the delicate balance of power that may exist.

Incorporating works like this also opens up space for discussing medical ethics issues, such as informed consent, patient autonomy, and the concept of "doing good." The work raises questions about how illness is experienced and managed and how the medical professional can act to improve not only physical symptoms but also the patient's quality of life.

## *The New York Times*

The cover of The New York Times magazine from August 15, 1993, can serve as a case study to explore how ethical, social, and cultural issues are addressed in the media. This can include discussions about stigmatization, representation, and even the commercialization of health. These are issues that future doctors must deeply understand to communicate effectively with their patients and the general public.

Figure 6: Cover of The New York Times magazine.



Source: Andrew Sondern, credits to The New York Times magazine.

## *Nude with Skeleton*

"Nude with Skeleton" (Figure 7) by Marina Abramović is a performance art piece that challenges viewers to confront issues of mortality, vulnerability, and the intimate relationship between life and death. This piece can be relevant to medical education as it addresses themes that are sometimes avoided in medical training but are intrinsic to clinical practice.

Figure 7: Nude with Skeleton.



Source: Marina Abramović.

In the academic context, introducing a work like this can create an opportunity for medical students to explore their own perceptions and attitudes toward death and suffering. Future doctors often focus on prolonging life and curing diseases; however, there are times when the best course of action is comfort, acceptance, and preparation for the end of life. "Nude with Skeleton" challenges viewers to consider these issues in a visceral way.

The work can be an effective tool for discussing issues of medical ethics and humanism. For example, it can spark debates on the role of the doctor in end-of-life situations, the principles of patient autonomy and informed consent, and the importance of sensitive and empathetic communication in moments of extreme vulnerability.

The performative aspect of the work also brings up the issue of the body as an "object" in medical contexts. Future doctors can be encouraged to reflect on how to approach a patient's body respectfully and consciously, recognizing its complexities and dignity even in states of extreme fragility or vulnerability.

"Nude with Skeleton" can serve as a catalyst for a series of discussions in medical education. The piece challenges viewers and, by extension, medical students, to explore existential and ethical issues that are fundamental to medical practice but often neglected in traditional curricula. Introducing artworks of this caliber can enrich and humanize medical training, preparing future doctors for the emotional and ethical complexities of clinical practice.

### ***Every One # 14***

The photographs by Sophie Ristelhueber (Figure 8) offer a striking visual representation of the skin as a barrier between the body and the external world, but also as a potential obstacle in cases of illness or medical treatment. Her work can serve as a valuable educational resource in medical teaching to address topics ranging from anatomy and physiology to ethical and psychological issues that arise in patient care.

Figure 8: Every One # 14.



Source: Victoria and Albert Museum, London.

The skin separates the body from the external environment, protecting it from external interferences; however, it can be an obstacle when this action is forced by illness and/or its treatment. This is illustrated by the works of Sophie Ristelhueber.

Initially, the images can be used to enrich students' understanding of the structure and function of the skin, clearly and tangibly illustrating its various layers and protective functions. This can help solidify students' theoretical understanding and provide a solid foundation for studying dermatological pathologies and related clinical procedures.

Ristelhueber's work can serve as a starting point for broader discussions on how physical illnesses and medical treatments can affect the patient not only on a physiological level but also psychologically and emotionally. The skin, as the largest and most visible organ of the body, often serves as an indicator of general health and well-being. Changes in the skin can significantly impact the patient's self-esteem and quality of life, an aspect that should not be underestimated in the clinical context.

This leads us to a third important point: ethics and communication in medicine. Ristelhueber's images can stimulate discussions on how to address sensitive issues with patients, such as discussing a diagnosis or proposing a treatment that may have aesthetic implications. Additionally, the way the skin can serve both as a protective barrier and an obstacle in medical treatment opens the way for ethical discussions about informed consent, patient autonomy, and beneficence versus non-maleficence.

### ***The technique of plastination***

The technique of plastination (Figure 9), popularized by Gunther von Hagens, represents a revolution in the field of anatomy and, by extension, in medical education. This technique involves replacing bodily fluids with plastic polymers, resulting in human or animal specimens that are odorless, durable, and retain most of their macroscopic and microscopic properties. Integrating this technique into medical curricula offers multiple pedagogical and ethical advantages that deserve consideration.

Figure 9: Technique of plastination.



Source: Gunther von Hagens.

Von Hagens' exhibitions, often called "Body Worlds," have sparked controversy and ethical discussions since their inception, and one of the most sensitive cases was when family members believed they recognized a relative in one of the exhibitions.

In this specific incident, the ethical controversy revolved around several issues, such as informed consent. Von Hagens claimed that all the bodies displayed in his exhibitions were legally donated and that the donors gave full consent to be used in this manner. However, the incident with the family raised concerns about whether the consent was properly obtained, especially in cases where families were unaware of the deceased's decision or where there could be doubts about the bodies' origins.

From an educational standpoint, plastinated specimens offer a highly detailed three-dimensional representation of anatomical structures, which can enrich students' understanding of the complexity and interrelation of various parts of the human body. The visibility and tangibility of the specimens also favor more active and collaborative learning, as students can explore, touch, and even disassemble the pieces for more in-depth analysis.

Plastination also presents substantial ethical benefits. Traditional preservation methods, such as formalin, pose health risks and require a strictly controlled environment. Plastination eliminates these risks and reduces the need for specialized storage space. Furthermore, the plastination process is often seen as a more respectful way of handling human specimens, as it results in a "cleaner" and more durable presentation.

However, the complex ethical issues surrounding the use of human bodies for educational purposes must be addressed. This includes the provenance of the bodies, informed consent from the donors or their families, and the potential for objectification or dehumanization. The technique of plastination, especially when used in public exhibitions like "Body Worlds," raises additional questions about the commodification of the human body and the balance between education and exploitation.

## Amyotrophic Lateral Sclerosis – ALS of Roger

Roger (Figure 10), by Mark Gilbert, a person with amyotrophic lateral sclerosis (ALS), a degenerative disease, expressed his hope that the drawings of his condition would inspire others to see the strength of the human spirit.

Figure 10: Amyotrophic Lateral Sclerosis – ALS of Roger.



Source: Mark Gilbert.

However, the complex ethical issues surrounding the use of human bodies for educational purposes must be addressed. This includes the provenance of the bodies, the informed consent of the donors or their families, and the potential for objectification or dehumanization. The plastination technique, especially when used in public exhibitions such as "Body Worlds," raises additional questions about the commoditization of the human body and the balance between education and exploration.

Notice the blanket with the symbol of the United States Air Force, telling a bit of his story and demonstrating that this person is not just defined by a disability.

Seeing their own experiences portrayed in a way that values their humanity and strength can help a patient find hope and motivation to face their challenges.

When patients see their own experiences depicted in a work of art, they gain some power over their condition, reducing their suffering.

Patients who see conditions similar to their own depicted find comfort in seeing that others also go through similar situations. Thus, art can have therapeutic value for patients dealing with illnesses and disabilities.

# **Ana Mae Barbosa and Art Education: Interfaces with Medical Education**

## 5. Ana Mae Barbosa and Art Education: Interfaces with Medical Education

Ana Mae Barbosa is a Brazilian educator who, while director of the Museum of Contemporary Art at USP, systematized the triangular approach, also called the Triangular Proposal. The Triangular Approach was originally an art education teaching proposal based in museums. Initially, it was called the triangular methodology.

It is based on three main axes: contextualize, do, and appreciate. The contextualize axis involves understanding the historical, social, and cultural context in which the artwork was created. The "do" axis is about the student's personal reinterpretation of the work, using different materials and techniques to produce their own work based on the original but with their interpretation. However, it is important to emphasize that it is not simply about copying the original work but using inspiration to create something new. The objective is to stimulate students' creativity and personal expression.

Finally, the appreciate axis involves the interaction between the object (the artwork) and the subject (the student), who must mobilize their conceptual and technological knowledge to understand the artwork in its context and evaluate their creation.

Ana Mae expanded the use of the triangular approach beyond art teaching, renaming it from Methodology to Approach, explaining that it should not be used rigidly.

This intervention proposal provides the opportunity to use the triangular approach. The PjBL themes bring us contextualization. The artistic intervention, transformed into products in the mini-exhibition, the remaining pillars of this: do and appreciate.

# Final Considerations

## 6. Final Considerations

In summary, medicine amalgamates science and art, a fact widely highlighted by the emergence of evidence-based medicine, which emphasizes the imperative of scientific support to underpin clinical practice. However, the perception of medicine as art is still rudimentary and, in many aspects, somewhat vague for contemporary researchers. This cognitive gap can lead to minimizing the relevance of the artistic dimension in medicine. From this perspective, this study only scratches the surface of the multiple possibilities of using art in medical school, requiring more studies that integrate art and medicine in its breadth and multidisciplinary.

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