The Visual Art of HIV/AIDS: An Interdisciplinary Approach to Teaching About HIV/AIDS

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ABSTRACT: Undergraduate education is shifting from fragmented subject areas to unified disciplines. To add to the growing interdisciplinary awareness, we are suggesting an approach to teaching the biology of HIV/AIDS by using the visual art that relates to this pandemic. Our reasons for formulating an alternative biology curriculum are: (1) to address different learning styles, thereby increasing the students’ understanding of the material; and (2) to affirm the interconnections between biology and art, and to stimulate creativity among students. We detail how pieces of art can be used to initiate discussions about biological/medical consequences of HIV/AIDS, history of the epidemic in the US, and the emotional ramifications of this disease. By describing this integrative curriculum, we provide a means of uniting intellectual boxes which academia traditionally separates.

KEYWORDS: HIV/AIDS, visual art, interdisciplinary approach, visual learners

INTRODUCTION
Undergraduate education is shifting from fragmented subject areas to unified disciplines. Surging popularity in interdisciplinary education is attributed to the practical aspect of addressing various learning styles of students (Gardner, 1999; Kirby et al., 1998). The widespread development of interdisciplinary curricula also is due to the valid pedagogical ideology articulated by Gardner:

Education in our time should provide the basis for enhanced understanding of our several worlds—the physical world, the biological world, the world of human beings, the world of human artifacts, and the world of the self (Gardner, 1999).

Incorporating the visual arts with other disciplines positively affects the students who learn most effectively with images. Verbal learners only need words for comprehension of a concept, but the image learners need pictures and diagrams (Banner & Rayner, 1997).

There are indeed precedents for using the visual arts within the realm of the science curriculum. Chicago’s Columbia College reinforces the interconnectedness between the disciplines of science and art in an interesting way. By the end of science and math courses, students must complete an art assignment in any medium that creatively portrays a particular science or math concept (Papacosta & Hanson, 1998). Northern Arizona University offers an interdisciplinary course that connects art, math and chemistry. Topics of discussion include the mathematics behind Renaissance one-point perspective, the chemistry of conservation and restoration, and how the atmospheric conditions might alter works of art (Kelley et al, 2001). This paper, uniting the study of HIV/AIDS with works of art and extends the current interdisciplinary approach in science education and the arts.

Representational works of art can augment at least three broad areas of discussion: the biological/medical aspects of HIV/AIDS, the history of the
epidemic itself, and the emotional consequences for people living with the disease.

Why use art to teach about HIV/AIDS instead of simply reading a textbook? Our reasons for formulating an interdisciplinary biology curriculum are: (1) to address different learning styles, thereby increasing the students’ understanding of the material and (2) to affirm the interconnectedness of biology with art to potentially stimulate creativity among students. The separation of the intellectual boxes of art and science is outdated.

**Linking Biological/Medical Issues to Art:**

The teaching of the biological and medical ramifications of AIDS can be divided into three main subject areas: basic information on HIV, the progression of the disease, and possible medical treatments for those infected. To understand the basics of the virus, students must be exposed to the physical structure and genetic makeup of the virus; they also must understand the specific interaction between the virus and the host’s CD4+ immune cells. To coincide with teaching about the effects of the virus, we recommend showing a piece like Nancy Burson’s *Visualize This* (1991) (Figure 1). This modified “diptych”, is part of a collaborative poster project to help the public visualize the effects of the disease.; it portrays a healthy T cell on the right juxtaposed against an HIV-infected T cell on the left. Another piece useful for this discussion is Joseph Kosuth’s *Guests and Foreigners* (2001) installation of murals in the boardroom of the Wall Street headquarters for AmFar (Hammond, 2001). It furthers the discussion of the HIV structure by presenting mural-size computer-generated graphic representations of the virus and its surface proteins with a timeline of major events in the pandemic, such as when the virus was first identified, superimposed.

Using both of these examples, one can discuss what is meant by the visual references to viral structure and the infection process. By displaying artwork with images of the viral structure, students can picture the structure with various surface molecules. A deeper understanding of the HIV/CD4+ interaction is gained by visualizing the depicted surfaces and how they connect to produce infection. The topics of conversation in the classroom then can extend into the HIV entry mechanism, the integration of the viral genome into the host DNA, potential areas of vaccine research using the molecules pictured on Kosuth’s mural, and more.

**Figure 1.** Visualize This (1991). Poster. Nancy Burson. Courtesy of the artist.
Burson’s and Kosuth’s images show the interrelatedness between science and art. One cannot separate the art from the science in a work like Visualize This. The electron micrographs of T cells and her artistic intentions meld together in her poster. Likewise, Kosuth utilizes computer representations of cellular surfaces to relay the importance of selected events found in the superimposed timeline.

To describe the progression of AIDS, one must include all stages, from the infection by HIV to the eventual death due to opportunistic disease(s). Two works of art are good examples of this disease progression. The silver gelatin print created by Rosalind Solomon called Garden, New York (1988) illustrates the concept of immunosuppression and infections by portraying the Kaposi’s Sarcoma lesions on the calves and feet of an AIDS patient standing in a garden (Atkins & Sokolowski, 1992). To represent the wasting syndrome in the advanced stages of AIDS, Greer Lankton created a seven-foot tall mixed-media sculpture of two emaciated bodies sitting next to each other, called Freddy and Ellen (1985). While slightly humorous, this work of art could show students how an artist responds to the reality of potentially losing 50% of one’s body weight in six months (Schoub, 1999).

Showing pieces similar to Solomon’s and Lankton’s artwork allows educators to address the range of opportunistic infections in AIDS patients. At a glance, the artwork appears to be illustrating strikingly different illnesses. The emaciated bodies look far removed from the lesions on the anonymous man’s legs. Teaching the students about how HIV causes the destruction of the immune system and leads to the opportunistic infections can connect these two images in a meaningful way. Our hope is that students will absorb the artistic portrayals of human figures and grasp the extent of potential infections.

How health care professionals treat people living with AIDS, from diagnosis to hospitalization, also may be considered through various works of art. Robert Farber, in his Western Blot Series, makes reference to one of the HIV diagnostic techniques. By showing a work like his Western Blot No. 15 (1992) (Figure 2), the professor can review the variety of AIDS medications indicated in the text Farber superimposes over his self-portrait: “I must take acyclovir, Bactrim, AZT and ddI and many different vitamins throughout the day just to keep my head above water” (Farber, 1997). Along with drug developments, the hospitalization aspect of the AIDS experience must be considered. Frank Moore’s surrealist hospital imagery proves most pertinent in this case. Arena (1995) (Figure 3) shows the hospital as a bizarre operating theater of nine circles with the doctor and AIDS patient at the center (Baker, 1994). The artist’s portrayal of the hospital environment provokes various interpretations, from a place of medical relief to one of eminent death.

The Farber and Moore examples stimulate discussion on current health care of AIDS patients by making direct reference, verbally and pictorially, to medical treatment. The images again, will serve the needs of visual learners as they are exposed to images detailing the medicine involved. These works depict the outline of the disease from diagnostic testing to the final stages of advanced AIDS. Highlighting the title of Farber’s piece offers an opportunity to introduce the students to the Western blot technique and its use in identifying the presence of HIV. Farber’s superimposed text makes reference to the variety of medications employed in the suppression or inhibition of HIV and can lead into a discussion of their effects and possible future methods of combating this disease. Detailing how these drugs suppress or inhibit the action of HIV is extremely valuable in education on medical treatment. When talking about how the final stages of the disease frequently involve hospitalization, one could point to the pictures of physicians performing various procedures on patients in Moore’s painting.
Epidemic’s History through Art

In addition to the biological and medical issues of HIV/AIDS, the history of the epidemic in the United States must be explored in the classroom setting to emphasize the social and political issues involved.

The epidemiology of HIV in the US, originating in homosexual populations at the coasts and spreading into all aspects of society, can be demonstrated with HIV/AIDS artwork. The initial artistic response was that of gay activism artwork, indicating one of the initially infected populations. Certain works can help inform students about the initial responses to the epidemic. While some individuals were referring to AIDS as the “gay plague” and WOG (“wrath-of-god”), activists were creating work like “Silence = Death” (Figure 4) and “Fight Homophobia, Fight AIDS” (ACT UP, 2000; Baker, 1994; Brandyberry & MacNair, 1996; Miller, 1992). A stellar example of public figures’ disdain for people with AIDS is the ACT UP piece entitled Let the Record Show (1987). The work, part of a window exhibit at the New Museum of Contemporary Art in New York, lines up the conservatives (like Jesse Helms) to mimic a prison. The image of an anonymous surgeon exemplifies the hateful response with his quote: “We used to hate faggots on an emotional basis. Now we have a good reason” (Baker, 1994; Wallis et al, 1999).

An understanding that everyone is at risk for HIV, not just homosexuals and drug users, became clear as the disease spread to other groups in the United States. Beginning in 1986, cases of heterosexual, mother-to-child, and transfusion-associated transmission were publicized (Miller, 1992). Artists like Jackie Kirk responded to the changing face of the AIDS epidemic. Kirk’s painting of facial portraits in the early 1990s pictured AIDS patients, male and female, young and old, from various ethnic and social backgrounds (Watten, 1991). Her work clearly indicates that the term “gay plague” is inaccurate.
With these art works, students can discuss issues related to epidemiology, transmission, and responses of the community to HIV/AIDS. Viewing the art chronologically demonstrates how the artistic community responded as the scientific community disseminated more information on the disease. As the scientific understanding of the disease increased, so did the images portrayed in the artwork.

Our expectation is that students will become more aware that biological information can be obtained from many sources, including the walls of art galleries.

Emotional Consequences in Art

The effects of AIDS reach far beyond physical symptoms. The disease has been linked to various emotional issues like depression, anxiety, and stress (Clay, 2000). One cannot discuss HIV/AIDS without bringing up such emotional aspects of the disease. Artwork is one way to express the physical and emotional concerns of AIDS patients.

Viewing a variety of artistic responses to HIV and AIDS dramatically expresses to students a range of emotions and issues that each patient must confront. To highlight the anger and frustration of being diagnosed with HIV, the work of Sue Coe would be helpful. She is able to capture very vulnerable emotional moments of AIDS patients in her drawings and prints. Often, she adds textual elements describing feelings and thoughts of the patient.

Sexuality and AIDS have been inextricably linked since the epidemic’s beginnings. Any person who contracted the virus was perceived as having engaged in homosexual activities or drug use (Patton, 1993). Many patients had to reconcile sexual behavior with an HIV+ status. The impact of an AIDS diagnosis has dramatic effects on patients and/or their lovers and should be discussed when teaching about HIV/AIDS.

Various notions of sexuality, from condemnation to education, present themselves in the work of AIDS artists. Keith Haring, taking an activist stance, frequently drew cartoon-like images referencing safe sex. His images cover everything from subway walls to tote bags. Frank Moore approaches the issue of homosexual sexuality in a more haunting light. His *Debutantes* painting shows two homosexual couples riding through a garden where images of torturing gay men fill the landscape (Baker, 1994; Harris, 1993). It is important for students to be aware that the type and amount of sexual activity vary greatly among people and are worth discussing.

Along with sexuality, spirituality should be addressed as it overtly appears in a great deal of the artwork around HIV/AIDS. Individuals facing a chronic illness like AIDS often turn to spirituality for solace. Previous research has noted the correlation between levels of a spirituality and mental health in people living with AIDS. Finding meaning in life using spirituality is a common occurrence following diagnosis (Fryback & Reinert, 1999; McCormick et al, 2001).

The absolute death sentence of HIV diagnosis causes artists to explore the supernatural in their work. Questions of God, salvation and the after-life provoke powerful creative responses. For example, Niblock-Smith sets up a mixed media installation called *Personal Best* (1992) where the central image references the AIDS patient as Christ-like with stigmata. The recurring imagery of the cross also could be pointed out in the artwork as a direct reference to spiritual seeking. For example, the group (ART) created a cross of colorized CAT scans from an AIDS patient with an image of the virus at the intersection of the cross (Atkins & Sokolowski, 1992) (Figure 5).

We are not trying to simplify the emotional experiences of people living with AIDS by breaking them down into neat categories. We only encourage educators to discuss both the biological and emotional consequences of infection. Even when discussing the biology of HIV/AIDS, the epidemic cannot be forced into a neat pamphlet on CD4+ cells and safe sex. Coe, Moore and Niblock-Smith are just a few artists who highlight how the biology of HIV/AIDS is linked to emotional and psychological issues.

Figure 4. Silence = Death (1986). Poster. Act UP Group. Courtesy of ACT UP.
CONCLUDING THOUGHTS

A vast amount of artwork exists surrounding the HIV/AIDS epidemic (Table 1). Artists are continuing to respond to the AIDS experience. The products of their creativity can be incorporated into the classroom setting, generating a variety of benefits.

A primary goal of our curriculum is for more students to become aware of the variety of educational materials on HIV/AIDS. Supplementing lectures on HIV/AIDS with works of art engages visual learners in an active way. As we have shown, pertinent biomedical concepts, epidemiology in the US, and patients’ emotional issues can be addressed by introducing works of art into the classroom. These works can act as a stepping off point for discussions and create a deeper understanding of the material for visual learners. Stimulating more groups of learners embraces a major educational goal of enhancing the understanding of all students.

One of the goals of our curriculum is to utilize the connections between the visual arts and biology to teach about HIV/AIDS. In demonstrating connections between HIV/AIDS biology and visual art, we hope to disprove the notion of separate and distinct disciplines. Our educational system tends to compartmentalize the subject areas, labeling students as “right-brained” or “left-brained”. In doing so, the potential connections between areas of study are neglected. We need to recognize the similarities between the creative mind of the artist and the creative mind of the scientist. As Colin Tudge eloquently states:

“The point is to show that the artist and the scientist are bent on a common endeavor, which is to say something true and interesting about the universe, that their notions are complementary, and that for most of their journey they can travel in tandem, or indeed in unison.” (Tudge, 1998)

By examining the connections between the visual arts and the biology of HIV/AIDS, we affirm Tudge’s point of the common journey.

As a final goal, we hope a curriculum of using the arts when examining HIV/AIDS will promote healthy behavior among students. College students are among the most educated populations about HIV/AIDS; however, as a whole, they do not perceive themselves to be at risk (Brandyberry & MacNair, 1996). One of our hopes in creating the HIV interdisciplinary curriculum is to establish both the human and the biological sides of the disease. Seeing the art created from those actually dying from the disease or affected by it hopefully will make the risk seem more tangible to students.

By bringing the arts and biology together, as seen in the HIV curriculum previously outlined, we are moving toward an interdisciplinary understanding of two seemingly disparate topics. We are moving also toward an academic approach that more effectively engages different types of learners. The truth is that our world consists of paintbrushes and micropipettes working simultaneously. Our teaching methods should reflect this reality, these daily interconnections.

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Table 1. Books and Web Sites Containing HIV/AIDS Art

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