

## Ethical Aspects of Studying Anatomy by Cadaveric Dissection

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Cadaveric dissection is being there for ages serving as an important tool for teaching anatomy and that's why it is an indispensable part of medical students' curriculum.<sup>1,2</sup> It is believed that dissection for the purpose of anatomy teaching was there since the period of Renaissance. Other than the anatomical core knowledge for medical students, cadavers serve many purposes including how death seems like and they are able to judge the importance of life seeing a dead body in front of them.<sup>3</sup> The basic purpose behind this is to establish a sense of empathy in the students along with sensitizing them with the feel, features and structures of a real body. Other than the knowledge of structures, dissection is an essential way to sensitize the future doctors with the core ethical values.<sup>1</sup> Development of ethical norms and their maintenance remains a cornerstone in the development of ethical values in the young learners.<sup>2</sup> It is a crucial part of medical education to nurture values of respect and ethics in the students.<sup>2,4</sup>

Nurturing the ethical aspects of the dead bodies can be initiated from the very beginning of the medical profession. Kundu et al in their study documented the role of cadaveric oath and cadaveric gratitude ceremonies by the medical students a needed aspect of developing core ethical values for the deceased. The importance of these activities in the hidden curriculum remain a cornerstone in teaching bioethics of dead bodies to the young medical learners and also to make them morally and ethically sound physician.<sup>3</sup> In China at Zhongshan School of Medicine, cadaveric gratitude ceremony by the name of 'Salute to *silent mentor*' is organized annually at the commencement of human anatomy course. Other than professionalism, the cadaveric gratitude ceremonies cultivate empathy for the dead ones.<sup>5</sup> The oath ceremonies at the start of the medical profession play an imperative role in developing values of dignity, respect and empathy for the dead bodies. The students realize that those who are in front of them as cadavers were once alive as they are. This contemplation make them virtuous and righteous medical personals.<sup>6</sup> There are various aspects which must

be kept in mind while handling the cadavers. First and foremost, respect should be given to all the bodies as they are serving as teachers to all the medical students.<sup>1,4</sup>

The human dead bodies must be kept moist so that the body tissues could not get putrefied.<sup>2,4</sup> Also, only those body parts should be exposed which are being used for the educational purpose at a certain given time in a learning session. Other remaining parts of the cadaver must be covered with respect and dignity.<sup>2</sup> Other than the organs, small dissected parts which are not in use must be buried or cremated with respect and it's a duty not to throw the parts in the waste bins. All the students of the medical students must be facilitated by a teacher who could make sure that students are following the ethical guidelines and are not showing unethical behavior in the dissection hall. It is must to make sure that students are there only for the academic purpose and must not at any point be indulged in any other activities related to fun and leisure, like eating food or drinking, making videos or taking selfies. Additionally students are supposed not to make any derogatory remarks about the dead bodies.<sup>2</sup> The bodies that serve as an educational tool to the medical students need to be dissected with great respect and paramount carefulness.<sup>3</sup> Lastly one should keep in mind that disrespecting a human body is equivalent to disrespecting the humanity. Once dead body is used for the purpose, funeral should be organized in which body should be buried with due respect in presence of the family members.<sup>7</sup>

The bodies that are used for the purpose of dissection are either donated or they are among the unclaimed bodies.<sup>4</sup> Kramer et al has mentioned in their research that in South Africa recent trend in dissection is to have more donated bodies as compared to unclaimed bodies and female gender was more in comparison to the male gender.<sup>8</sup> Other than the unclaimed bodies, many donate their bodies for the purpose to be a source of imparting knowledge to the future healers of the society.<sup>2,4</sup> The donation of the human bodies for the purpose of education was started in the late 20<sup>th</sup> century. The selfless act of donation on the one hand was as brightening as a beam of light for the learners but on the other hand, the process also has ethical aspects associated with it. One important feature is getting informed consent from the donor.<sup>2</sup> It is also vital that the person giving the informed consent must be of sound mind so he could be able to rationalize his decision.<sup>7</sup> Also, other ethical aspect could be misuse of the human body for the commercial

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purpose. Other cardinal feature is that the donors of the bodies or their families should not get any sort of monetary benefit from donation. Another salient aspect is confidentiality of information of the donor or the family.<sup>2</sup> Proper legal documentation regarding the donation of the body and how the body will be handled by the organization has to be mentioned in the document. The legal procedure prevents commercialization of the body.<sup>9</sup> The act of altruism must be kept in mind while one explores the dead body.

The evolvement of Bioethics has made many realize that the use of unclaimed bodies for dissection is unethical. Since the deceased has not consented for the use of his/her body, that is why it is equivalent to showing contempt for the dead. As many unclaimed dead bodies belong to poor, there is a chance of exploitation of the vulnerable.<sup>10</sup> Keeping in mind, the possibility of exploitation and the ethical values, it is crucial that informed consent be received from the donor during his life. Informed consent regarding the donation of body makes the person exercise autonomy and also dignity is maintained. Creation of awareness among the public regarding donation is a must. Trust of people on those who carry the procedures of dissection is considered to be vital for public to donate.<sup>11</sup> Exploitation of bodies of donors can also come to a halt provided there is a regulatory body that ensures that bodies will not be exchanged for any sort of financial benefit. The finance for cremation should be the responsibility of the institutes receiving and using the bodies.<sup>12</sup>

It is highly advisable that every medical professional entering the field should be involved in certain important practices when they come across deceased. They include giving honor, staff should always be there with the students, gratitude ceremonies be held, use of attire should be appropriate, only required minimal exposure of bodies for purpose of teaching has to be ensured, human tissues should not be the part of general waste bins, drinking, eating, video making, photography should be banned, avoidance of irrelevant and funny chats, dissection region should only be for selective staff and students and after use bodies should be cremated or buried with utmost esteem.

**Authors Contribution:**

**Quratulain Javaid:** Substantial, (direct, intellectual) contribution to the conception, design, analysis and/or interpretation of data

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