

Legislation for Cadaver Procurement for Teaching Anatomy in Sri Lanka

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Abstract

Cadaver-based teaching remain as an integral and imperative component of anatomy education. In the past, bodies obtained from execution, grave robbing, and murder were used to carry out cadaveric dissection. It appears that body donation and the procurement of unclaimed bodies are the typical methods that are currently employed for such purposes universally. The former method is recommended by the International Federation of Associations of Anatomists. Body donation in Sri Lanka is governed by the legislation, and the policies of medical institutions. Therefore, any request for body donation that does not meet the requirements of both the legislation and the individual medical institution will not be accepted. This manuscript aims to review the current legislation of the country along with other selected international laws and guidelines pertaining to procurement of bodies for anatomy education.

Running title: Legislation for Cadaver Procurement

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Introduction

The dissection of cadavers remained centuries as the gold standard for teaching anatomical science (McLachlan 2004). Cadaveric

dissection and other cadaver-based teaching methods, for example learning through prosected gross specimens, are regarded as an integral and imperative component of contemporary anatomy education despite the introduction of novel methods. The visual, auditory, and tactile experiences gained through the active participation of students in dissection sessions underpins the knowledge that is acquired from traditional didactic lectures, tutorials, and relevant study materials. Thereby, dissection enables medical students to create and retain three-dimensional mental images of the human body.

Cadavers (or cadaveric materials) are viewed as a valuable source, not only for teaching anatomy, but also for learning surgery (Hong et al 2017) and to conduct research (Hardy et al 2007). In addition, cadavers serve as a resource for organs for transplantation purposes (Cantarovich 2005).

Source of Cadavers and Early Laws

Earlier days of dissection were performed on the dead bodies of the executed, and Hildebrandt (2008) summarized the legislation related to use of such bodies for anatomical purposes from the 13th to 20th century in the United States and Europe. As an example, the “Murder Act” of 1752 passed in Britain incorporated dissection as part of the death sentence. Since the community was not in

favor of dissection, (as it was viewed as a great dishonor for the person being dissected), the “threat of dissection” was used by law makers as a deterrent to discourage the public from committing high-level crimes (Hulkower 2011). This post – execution punishment (being subject to dissection following execution) was viewed as “double sentenced” and considered worse than capital punishment alone (Halperin 2007).

In the United States and Europe, the corpses of executed criminals met the requirement of bodies for the anatomical dissection until the 18th century. However, as the demand for cadavers increased along with the growth of the study of anatomy, an alternate method referred to as “grave robbing” became widespread in the 18th and 19th centuries (Hulkower 2011).

Grave robbing (body snatching) is a gruesome, illegal, and immoral act by which newly buried dead bodies were acquired for dissection by digging up burial grounds. The “New York Resurrection Riot” of 1788 (“Doctors’ Riot”) was a public outcry against grave robbing which prompted the passing of legislation in New York “to prevent the odious practice of digging up and removing for the purpose of dissection, dead bodies interred at cemeteries or burial places”. The enacted legislation empowered judges to add dissection as a further punishment to those being hanged for the crimes of arson, burglary and murder [Hulkower 2011], (Halperin 2007)].

The Anatomy Act of 1832 which was passed in Britain ended the era of grave robbing in that country. It permits “unclaimed bodies to be

dissected and used in anatomy theatres”. Cadavers had also been acquired through murder at times in history (Humphries 2014). It is noteworthy that the Anatomy Act of 1832 was replaced after thirty-nine years by the newer Act (referred to as the Anatomy Act of 1871) which requires “consent to be given before a body could be used for anatomical examination”. Subsequently, the Anatomy Act of 1984 and Human Tissue Act 2004 were enacted in the United Kingdom (Riederer et al 2012).

Body donation: Concept, Law and Guidelines

The most common sources of cadavers for contemporary medical education are body donation, and procurement of bodies that are unclaimed (Habicht et al 2018). The former method, body donation, can be explained as an “act of providing one’s own intact body for medical education and / or research upon demise by his/her informed consent given prior to death” (Chenthuran 2021).

Body donation depends exclusively on the generosity of the donors and their family members. Body donation programmes are centered on creating awareness of body donation among the potential donors / general public. In this regard, body donation awareness programmes conducted in India involving mass media and society had proved to be an effective way to increase body donation and registration for such purposes (Amanrao et al 2012). There are many factors determining the perception and attitude of communities towards body donation, and Fennel and Johns

(1992) reported that “aid medical science and teaching in some way” was the most common reason for making a body bequest while “gratitude to the medical profession” was the next (Fennel and Johns 1992).

The Uniform Anatomical Gift Act (UAGA) which is regarded as a landmark in the practice of body donation was enacted in the United States in 1968. This act admitted that body donation is “a right, morally based on free choice and volunteerism” (Hulkower 2011). It was revised subsequently in 1987 and 2006 (UAGA, 2006).

In 2005, the Trans-European Pedagogic and Anatomic Research Group (TEPARG) [also known as “Trans-European Pedagogic Research Group for Anatomical Sciences”] had discussions on the ethical and legal stance of different countries in Europe namely Austria, Germany, France, Netherlands, Italy, Romania, Serbia, Portugal, Spain, Switzerland, and the United Kingdom related to body donations for anatomical examination (McHanwell et al 2008). They provided “recommendations of good practice for the donation of human bodies and tissues for anatomical examination”. Subsequently the first update of current practices on body bequest in these countries excluding Serbia, but incorporating novel contributions from Malta and Turkey, was published in 2012. Two important facts that were observed in their latter work were the lack of control over the import / export of human dead bodies, and commercialization of body parts. The authors highlighted the necessity of establishing a common regulation regarding the usage of human dead bodies - not only in Europe - but

also in other countries (Riederer et al 2012). In 2012, the International Federation of Associations of Anatomists (IFAA) provided “recommendations of good practice for the donation and study of human bodies and tissues for anatomical examination” (Plexus 2012).

The recommendations of TEPARG and IFAA agrees in many aspects including, but not limited to, obtaining informed consent, preserving anonymity of the donor, encouragement to hold Services of Thanksgiving or Commemoration to the donors who bequeathed their bodies for medical education and research, various rejection criteria, maintaining transparency in procedures, delivering special lectures in ethics (related to donation of human remains) to the students who learn anatomy etc. (McHanwell et al 2008) (Plexus 2012).

It is instructive to note that medical institutions should practice highest ethical standards in the procedures related to body donation, and indeed, they should establish a clear transparency in the usage of cadavers (or cadaveric material) in medical education and /or research to enhance public trust to gain more public support for body donation.

Legislation of Sri Lanka for Body Procurement

In Sri Lanka, the Transplantation of Human Tissues Act (No. 48 of 1987) (hereinafter referred to as THTA) is the legislation that oversees the “donation of human bodies and tissues for therapeutic scientific, educational

and research purposes” and, “preservation of such tissues” (THTA, 1987). In addition, the policies of individual medical institutions - in accordance with the legislation of the country - govern the procurement of bodies for anatomy education.

The body donation programmes usually focus on obtaining informed consent from the donor – during his or her lifetime on ethical and legal grounds. The IFAA precisely indicated that written informed consent must be obtained from donors before accepting any bequest (Plexus 2012). Sri Lankan law passed in 1987, the THTA, (THTA, 1987) agrees with the said IFAA recommendations made in 2012 (Plexus 2012) in obtaining written consent.

It is apt, albeit briefly, to discuss the salient features of the THTA insofar as it relates to the procurement of cadavers for dissection. Section 2 of the act specifies that “any person above the age of twenty-one years may consent to the donation” “of his body” for inter alia advancement of medical education and medical science, and purposes of research. Such donation shall take effect upon the death of the donor (Section 2; THTA, 1987). The consent may be given either in writing or in the prescribed form attested by at least two competent witnesses, or orally in the presence of at least two competent witnesses. This provision is wide enough to cover the procurement of cadavers much as possible through body donation for medical education and research purposes.

Requiring the donor’s consent is a reflection of the concept of bodily integrity and autonomy.

The donor may specify the exact purpose for which his or her body shall be used, but a lack of indication of a purpose in the consent cannot be a reason to invalidate the donation effective upon death (Section 3 (2)). However, if a purpose is specified, utilizing the body for any purposes other than for which the consent is given is a punishable offense (Section 13 (a)).

The THTA also allows a relative of a deceased to donate the body of the deceased. Section 5 of the act specifies that the next of kin of the deceased can give consent in writing for the removal of the body of the deceased for any of purposes enumerated in section 2 (Section 5 (1)). This right, however, has two prerequisites. First, the next-of-kin making the donation must be or above twenty-one years old, and second, the deceased person must not at any point in his or her life expressed a contrary intention to donate his or her body (Section 5 (1)). Further, the purpose for which such donation can be made is confined to the same purposes enumerated in section 2. With regard to a deceased child, it is lawful for both parents or if one parent is absent or incapacitated, the other parent who is sane or in the absence of both parents, the guardian of the child to give written consent for the removal of the body for any of the purposes enumerated in section 2 (Section 5(2)). The Age of Majority (Amendment) Act No.17 of 1989 has reduced the age of consent as eighteen years. Therefore, the age of consent specified in the THTA must be interpreted in light of the Age of Majority (Amendment) Act.

There is also a difference between consent given by the donor and that of their next-of-kin / guardian. When the consent is given by the

former, it is not mandatory to specify the donee. In such cases, the government hospital or any prescribed institution nearest to the place where the donor died shall be deemed to be the donee (Section 4 (2)). Whereas when the consent is given by the latter, a lack of indication of the donee will invalidate the consent (Section 5 (3)). However, the precise reason behind this distinction is unclear.

The dual approach for body acquisition (i.e. either by the free choice of an individual or his/her surrogate) is observed also in the UAGA (UAGA, 2006) and viewed as “two bites of the apple” (Glazier 2018). It is notable that both Sri Lanka and the United States follow the “opt in” principle where a person becomes a donor only based on his or her willingness or of another individual acting on behalf of that person (“surrogate”). However, in some countries, mainly in Europe, a person is deemed to be a donor unless he or she, or his or her surrogate “opts out” (“presumed consent”) (UAGA, 2006).

Section 4 of the UAGA indicates that every adult and emancipated minor has the freedom to donate his or her body for the purpose of transplantation, therapy, research, or education. In case of unemancipated minors, a parent of the donor or guardian can give the consent. Interestingly enough, an agent of the donor who has the power of attorney for healthcare can also consent to such donation unless such document prohibits the agent from making an anatomical gift. The THTA, however, is silent in this regard.

Section 5 of the UAGA speaks about the methods whereby donations can be made.

Such methods are wider compared to the ones in Sri Lanka. For instance, making of an anatomical gift can be made by a donor card, will, state-issued driver’s license, state-issued identification card or a donor registry (Section 5; UAGA, 2006).

Furthermore, Sri Lankan law mentions that the next-of-kin can make a donation when the deceased had expressed no intention to donate during his or her lifetime. The counterpart, UAGA, provides a comprehensive list of classes of persons in the order of priority for the same purpose (Section 9: UAGA, 2006). It is also notable that when there is a conflict of opinion among the members of the same class (e.g., adult children of the deceased) who are authorized to donate the body of a deceased, the majority opinion will be decisive.

One of the salient features of the UAGA (section 8) is that the family members / relatives do not have the right to overrule the decision made by an individual during his or her lifetime to donate his or her body upon death. However, it is not applicable in the case of death of an unemancipated minor donor under the age of eighteen where a parent can revoke or amend the anatomical gift made by the said donor (UAGA, 2006). In Sri Lanka, the legal approach to the views / objections of the close-relatives is not clear.

On a purely legal viewpoint, the concepts of bodily integrity and autonomy, which makes the donor the master of his or her own body, would oppose the denial of donation by the relatives. Accordingly, one could argue that the deceased person's wish to donate his or her body should be respected regardless of any

objections by the relatives the same way as a person's valid last will and testament is given effect regardless of the next-of-kin's protest and objections to disposal of property by such will. Nevertheless, if such an approach were to be adopted, it would devalue the body of the deceased to merely another of his or her property. In a religious background, such a view would create ethical and moral dilemmas. Hence, it is for this reason that relative's objections can be considered by medical institutions on humanitarian grounds. Revocation of previously given consent by the donor is permitted in Sri Lankan legislation (THTA, 1987).

Unclaimed bodies remain an important source of cadavers for anatomy education. A recent study revealed that 45 of 68 countries which utilize cadavers for anatomy teaching use unclaimed bodies for such purposes (Habicht et al 2018). However, the guideline of IFAA excludes the usage of unclaimed bodies (Plexus 2012). Jones and Whitaker (2012) viewed that using unclaimed bodies is a form of exploitation, and pleaded with anatomists to cease their usage (Jones and Whitaker 2012). In the case of Sri Lanka, the legislation as it stands does not preclude the use of unclaimed bodies for any anatomical research (THTA, 1987).

Description of policies and practices of individual medical institutions in Sri Lanka as related to the procurement of bodies for anatomy education is beyond the scope of this manuscript. An outline of fundamental information regarding the body donation programme of selected Sri Lankan medical

institutions has been reported (Chenthuran, 2021).

Reflective remarks

Using the cadavers obtained through informed consent for medical education would indirectly teach the medical students the importance of obtaining consent from the patients for the procedures involved in their healthcare. In addition, understanding the concept of informed consent would enable the medical students to respect the views or concerns or even dissent or revocation of already given consent (if applicable) by the patients in their future clinical practice.

In Sri Lanka, as discussed earlier, usage of donated and unclaimed bodies for medical education is legally permissible at present. According to the ethical perspectives and the social, cultural, and religious values of the country, the body donation through informed consent provided during the lifetime of an individual along with his or her close relatives would be considered as the preferred choice of body procurement for medical education in Sri Lanka. It is not clear whether there is a requirement for unclaimed bodies for medical institutions in the country at present and when documentary evidence proves that the body donation alone is self-sufficient to fulfill the requirement of all medical institutions in the country, it shall be declared as the sole method for body procurement in the subsequent revision of the relevant Act.

Conflict of interest

None

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