

HUMAN SKIN BANK IN MALAYSIA: ADDRESSING CLINICAL DEMANDS THROUGH ISLAMIC SHARIAH PERSPECTIVES

Muhamad Rafiqi Hehsan^{1a*}

^aFaculty of Medicine, Universiti Sultan Zainal Abidin, Medical Campus, Jalan Sultan Mahmud, 20400 Kuala Terengganu, Terengganu Darul Iman, MALAYSIA.

E-mail: muhamadrafiki@unisza.edu.my¹

*Corresponding Author: muhamadrafiki@unisza.edu.my

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ABSTRACT

Human skin transplantation plays a pivotal role in modern medical practice, particularly in the treatment of burn injuries, chronic wounds, and complex dermatological conditions. The establishment of human skin banks has significantly enhanced clinical outcomes by providing timely access to viable skin grafts. However, in Muslim-majority nations such as Malaysia, the implementation of such biotechnological advancements necessitates rigorous evaluation through the lens of Islamic legal and ethical principles. Therefore, the purpose of this study is to provide an overview of the role and significance of human skin banks in modern medical practice, address the medical needs that human skin banks fulfil, delves the ethical and legal dimensions of their operation in accordance with Islamic principles. This study adopts a qualitative, library-based methodology by reviewing authoritative sources, including classical Islamic texts, contemporary fatwas, scholarly articles, and relevant medical literature. Through a systematic review and Islamic legal analysis, this paper explores the compatibility of human skin banks with Shariah principles, with specific focus on the objectives of Maqasid Shariah and the application of Qatwa'id Fiqhiyyah. The findings underscore the permissibility and necessity (dharurah) of human skin banking, provided it adheres to ethical protocols such as informed consent, equitable distribution, and preservation of human dignity. This study contributes to the Islamic bioethical discourse by proposing a comprehensive Shariah-compliant framework for the operationalisation of human skin banks in Malaysia.

Keywords: Human skin bank, Islamic bioethics, Maqasid Shariah, tissue grafting, Malaysia.

1. INTRODUCTION

Human skin transplantation is a vital aspect of modern regenerative medicine, significantly contributing to the management of burn injuries, chronic wounds, and various dermatological conditions (Melika Heidarzadeh et al., 2023). With the establishment of human skin banks, the availability of

high-quality skin grafts has improved clinical outcomes and reduced patient suffering. The skin bank generally has multiple functions, including the harvesting, processing, preservation, and supply of human skin allografts (Chem, E. M. et al., 2018). The skin from the same species (allograft) acts as a temporary biological dressing to cover deep or external skin wounds (Megahed, M. et al., 2021). The main clinical indication for its use is for cases where the body surface area is severely affected, preventing the autograft process from acting normally (Chem, E. M. et al., 2018). It is important to treat cases of burns, especially those related to severe accidents (polytrauma). However, the successful operation of these banks is not without challenges, particularly in regions where Islamic values are significant, such as Malaysia (Heng, W. L. et al., 2020).

While multiple studies have addressed the clinical utility of skin banking, limited scholarly discourse systematically integrates Islamic legal reasoning with bioethical evaluations specific to the Malaysian context. Most available literature merely reiterates existing fatwas without critical analysis or the application of Islamic legal maxims to the unique case of skin grafting. This study aims to (1) explore the medical rationale and operational framework of human skin banks, (2) critically analyse the Islamic legal permissibility and ethical implications of human skin banking. By harmonising clinical innovation with Islamic principles, this paper seeks to offer actionable guidance to policymakers, Shariah scholars, and healthcare professionals in developing ethically robust and Shariah-compliant protocols for human skin bank operations in Malaysia.

The paper begins with an overview of the clinical imperatives and operational mechanics of human skin banks, followed by a review of relevant fatwas and Islamic ethical principles. It then presents a critical section on *takyif fiqhi*, integrating Islamic jurisprudential reasoning with contemporary medical realities, before concluding with recommendations for implementation.

2. LITERATURE REVIEWS

2.1. Overview Of The Human Skin Bank

2.1.1. The Concept of Using Human Skin

The human skin is a complex organ that functions as the first line of defence against external threats while also contributing to various physiological functions such as preventing fluid loss, stabilising body temperature, and providing sensory input (Nguyen, A. V., & Soulika, A. M., 2019). In addition, the skin also has a very important immunological system

dedicated to the maintenance of tissue homeostasis, defences, and tissue repair (Jin, R. et al., 2022). However, severe burns, chronic ulcers, and skin diseases can disrupt the integrity of the skin, requiring the replacement of damaged tissue (Nguyen, A. V., & Soulika, A. M., 2019).

The most common skin closure method in dermatology for covering wounds, particularly those resulting from skin cancer, is skin grafting (Prohaska, J., & Cook, C., 2023). Additionally, the flap technique can be employed; however, it is less common because of the unsatisfactory cosmetic outcomes. The skin graft method, in contrast to the flap, is completely removed from its blood supply, while the flap remains attached to the blood supply through the pedicle (Simman, R., 2009). Although technically less complex, skin grafts can take more time due to the creation of a second surgical site. Based on the structural characteristics of the graft, skin grafts can be classified into a number of categories, each with particular risks and indications (Prohaska, J., & Cook, C., 2023).

1. Split-thickness skin grafts (STSG) consist of the epidermis and the upper part of the dermis.
2. Full-thickness skin grafts (FTSG) that contain both epidermis and dermis in full.
3. Composite grafts contain skin and other types of tissue, usually cartilage.

FTSG is the most commonly used skin graft in dermatology, as it can provide an excellent tissue match to the host site (Leal-Khoury, S. M., & Grummer, S. E., 2011). As a result, there will be minimal contractures and scarring after the incision heals. Composite grafts are also in high demand, usually only used in the nose and ears in situations where cartilage also needs to be replaced. STSG is usually less attractive cosmetically due to a lack of adnexal structure and a colour mismatch (Braza, M. E. et al., 2025). There is also a significant risk of contracture with STSG, and the donor site for STSG also tends to be more painful for the patient compared to FTSG (Prohaska, J., & Cook, C., 2023).

2.1.2. Operational Aspects of The Human Skin Bank

Human skin banks operate through a process that includes various steps involving the collection, screening, processing, storage, and use of donor skin (Tognetti, L. et al., 2017). Deceased donors are carefully screened to ensure the absence of infectious diseases or other contraindications. After appropriate screening, donor skin is processed to remove cellular components and subjected to various preservation methods, including cryopreservation and

lyophilization. Properly stored skin grafts can be retrieved from the bank as needed, reducing the reliance on autographs and increasing the speed of the transplant procedure (Kearney, J. N., 2005). There are several criteria for the selection of this human organ, tissue, or skin.

2.1.3. Selection Criteria for Organ and Tissue Donation *(Martínez-Flores, F. et al., 2015)*

- Confirmed brain or encephalic death for cadaver donors
- A death certificate has been issued to confirm the death.
- Negative serology for infectious diseases: HIV, HBV, HCV, HLV, and VDRL
- There is no history of important diseases that affect the organ to be donated.
- There is no history of major diseases affecting tissue.
- There was no uncontrolled septic infection. Leukocytes below 15,000/dl
- There is no history of extracranial cancer.
- There is no clinical history of autoimmune disease.
- The patient's hemodynamics are relatively stable.

VDRL, serological test for syphilis; HBV, hepatitis B virus; HCV, hepatitis C virus; HIV, human immunodeficiency virus; HLV, human lymphotropic virus.

2.1.4. The Challenge of The Human Skin Bank

Despite the remarkable progress in this field, human skin banks face several challenges (Tognetti, L. et al., 2017). An important obstacle is the availability of suitable donor skin (Yusuf Kenan Coban et al., 2011). Strict criteria for donor eligibility, the need for rapid procurement, and complex storage methods pose logistical challenges. Additionally, ethical concerns when obtaining consent from donors or their families and ensuring equitable distribution of skin resources also require careful consideration. The principle of informed consent is central to medical ethics worldwide. In the context of skin donation, donors and their families must provide explicit consent, comprehending the implications of the procedure, its benefits, and its impact on the donor's body. In general, there are three main challenges identified for the implementation of human skin banks (Cai, L. et al., 2017).

- 1) Identify and acquire the necessary equipment and personnel to collect, process, store, and cadaver skin grafts or grafts for burn injuries.
- 2) Develop safe donation protocols and appropriate documentation instruments, especially for low-income countries (low-resource settings).
- 3) Create short- and long-term awareness programmes to educate the

community about skin donation, a concept that was not known before.

2.1.5. *The Situation in Malaysia*

The operation of human skin banks in Malaysia and in any predominantly Muslim region hinges on awareness and acceptance among the public, healthcare practitioners, and religious scholars (Heng, W. L. et al., 2020). Effective communication and education are vital to bridge the gap between scientific advancements and the understanding of Islamic ethical principles. Collaboration between healthcare professionals and religious scholars is crucial to promoting understanding and acceptance of skin transplantation practices. Malaysia is considered still new from the perspective of this human skin bank. According to Nather, A. et al. (2018), two tissue banks were established in Malaysia in 1991.

- 1) The Malaysian National Tissue Bank (MNTB) was established by Dr. Hasim Mohamad, a general surgeon, at the Universiti Sains Malaysia, Kota Bahru, Kelantan.
- 2) The Malaysian Institute for Nuclear Technology Research (MINT) Tissue Bank was established by Dr. Norimah Yusof at the Malaysian Institute for Nuclear Technology, Bangi, Selangor (later renamed the Malaysian Nuclear Agency, or MNA, in 2006).

Similar to other nations, tissue banking in Malaysia is governed under the Laws of Malaysia, Act 130, 1974, an "opting-in" statute. The Malaysia Islamic Centre issued a "Fatwa on Bone, Skin, and Amnion" a religious regulation permitting Muslims to donate, in September 1995. In spite of this, Muslims' views on tissue donation have not changed all that much. Because of this, the country of Malaysia continues to have a donor shortage (Nather, A. et al., 2018). On November 5, 1994, Dr. Hasim Mohamad contributed to the opening of the Malaysian National Tissue Bank in Kota Bahru, Kelantan. Dr. Ruzlan officially inaugurated the General Hospital Kuala Lumpur Bone Bank, the third tissue bank, in 1998 during the Asia Pacific Association of Surgical Tissue Banks' 7th Scientific Meeting, which was held in Kuala Lumpur. There are two further new tissue banks being established: the International Islamic University of Malaysia, located in Kuantan, and the University of Malaya Medical Centre, located in Kuala Lumpur. The Malaysian Association for Cell and Tissue Banking was founded in 2005, and tissue banking has expanded significantly in Malaysia (Nather, A. et al., 2018).

2.2. Medical Needs For The Human Skin Bank

2.2.1. Advantages of Human Skin Bank

Human skin banks have become indispensable resources in modern medicine, offering a range of advantages that significantly impact patient care and outcomes (Chem, E. M. et al., 2018). These banks provide a reliable supply of high-quality skin grafts, making them instrumental in various medical scenarios. According to Kagan et al., there are several advantages to allografts using human skin.

- i. Reduces loss of water, electrolytes, and proteins
- ii. Prevents tissue dryness
- iii. Inhibit the growth of bacteria
- iv. Reduce wound pain
- v. Reduce energy requirements
- vi. Promote epithelialization
- vii. Prepare the wound for definitive closure.
- viii. Prepare the skin for epidermal grafting.

The urgent demands of certain circumstances that require allograft can be handled more swiftly because of this human skin bank (Megahed, M. et al., 2021). The benefits of rapidly administering allograft skin include promoting microbial growth control, accelerating the revascularization process, producing clinical results that may be reevaluated, and causing speed as well as strength of attachment to the wound (Gupta, S. et al., 2019). Human skin banks represent a significant advancement in modern medicine by providing rapid and reliable solutions to burn injuries, chronic wounds, and dermatological conditions.

2.2.2. The Use of Human Skin Banks

Human skin banks have emerged as invaluable resources within the domain of medical practice, making substantial contributions to the treatment of various conditions, particularly in the management of burn injuries, chronic wounds, and dermatological disorders (Tottoli, E. M. et al., 2020). The implementation of skin banks reflects a transformative shift in healthcare, underscoring their pivotal role in providing a reliable supply of high-quality skin grafts (Tottoli, E. M. et al., 2020). Skin grafting is an intervention that has the power to drastically change a patient's life, particularly for individuals with unhealed, extensive wounds (Prohaska, J., & Cook, C., 2023). If the wound is large enough, prompt cleaning and treatment, often at a specialised centre, determine the progression of the healing process. It is essential for all teams to get together so that the wound healing and skin grafting processes are

successful and the patient has an optimal outcome (Tottoli, E. M. et al., 2020). Candidates for this skin bank may include patients with serious wounds or burns who lack sufficient skin for transplantation. In order to avoid infection, minimise fluid loss until dehydration, and enhance the patient's quality of life, continuous skin continuity is crucial (Martínez-Flores, F. et al., 2015).

2.2.3. Indications For the Use of Skin Allografts in Wound Management

Skin allografts, also known as homografts, have emerged as valuable tools in the management of various types of wounds (Megahed, M. et al., 2021). These allografts, sourced from human donors, play a crucial role in promoting wound healing and tissue regeneration. Skin allografts have many indications, including covering severe wounds in cases where autologous tissue is unavailable, extensively meshing skin autografts, use in extensive partial-thickness burns, skin with significant epidermal wounds, such as in the case of Stevens-Johnson syndrome, toxic epidermal necrolysis, and staphylococcal scalded skin syndrome, evaluating the potential to receive an autograft, and as a template for keratinocytes to be applied subsequently (Kagan, R. J., Robb, E. C., & Plessinger, R. T., 2005). The main indications for using skin allografts in wound care can be addressed in the discussion as follows (Darwish, A., 2011).

1) Burn Injuries:

Skin allografts are extensively employed in the treatment of burn injuries, particularly in cases of extensive burns like deep, full-thickness burns. It can also be used in cases of post-traumatic skin loss, where the patient's own skin may not be available in sufficient quantities for grafting. In the early stages of burn management, allografts serve as biological dressings, protecting the wound bed from infection, fluid loss, and thermal trauma. They provide a temporary barrier while promoting the formation of granulation tissue, facilitating the subsequent application of autografts.

2) Chronic Wounds:

Chronic wounds, such as venous leg ulcers, diabetic foot ulcers, and pressure sores, often present challenges in healing due to various factors, including impaired blood supply and underlying medical conditions. Skin allografts are used as a wound cover, aiding in the wound's closure and tissue regeneration. They create a favourable environment for cell proliferation and tissue repair, accelerating the healing process.

3) **Surgical Wounds:**

In some surgical procedures, particularly those involving large tissue excisions or traumatic injuries, skin allografts may be used to cover exposed tissue, prevent infection, and facilitate wound healing. They serve as temporary coverage while the body's natural healing mechanisms are initiated. This can be particularly useful in trauma surgery and reconstructive procedures. Other than that, it can be used after surgery, such as post fasciotomy to rebuild the vasculature of injured skin.

4) **Dermatological Procedures:**

In certain dermatological procedures, where tissue is removed for diagnostic or therapeutic purposes, skin allografts may be used to cover the excised area. These grafts can provide an excellent cosmetic outcome while ensuring optimal wound healing and reducing the risk of infection.

5) **Specialised Cases:**

In select cases, such as severe cases of epidermolysis bullosa or extensive skin loss due to necrotizing fasciitis, skin allografts may serve as a temporary wound cover while long-term management plans are formulated. These cases often require multidisciplinary care, with skin allografts playing a vital role in stabilising the wound and alleviating pain.

2.2.4. Contraindications

Active infection, uncontrolled bleeding, and incomplete cancer excision are absolute contraindications for grafting. Among the relative contraindications are chronic corticosteroids, bleeding disorders, smoking, anticoagulant drugs, and malnourishment. Because of the increased risk of contracture, split-thickness skin grafts should not be used in close proximity to free margins, while full-thickness skin grafts are not recommended for use on avascular sites larger than 1 cm. (Prohaska, J., & Cook, C., 2023; Goldminz, D., & Bennett, R. G., 1991).

3. METHODOLOGY

This study adopts a qualitative, library-based research design. The methodological process involved three key stages:

1. **Data Collection:** Authoritative sources were systematically reviewed, including classical Islamic jurisprudential texts, contemporary fatwas

issued in Malaysia and internationally, peer-reviewed scholarly articles, and medical literature on skin transplantation and tissue banking. Official documents from Malaysian regulatory bodies (e.g., National Fatwa Council, Ministry of Health) were also consulted.

2. **Data Analysis:** Sources were examined using thematic content analysis, focusing on two domains:
 - **Clinical-medical imperatives** (e.g., indications, benefits, and limitations of human skin banks).
 - **Islamic legal and ethical dimensions** (e.g., Maqasid Shariah, Qawa'id Fiqhiyyah, and fatwa rulings).
3. **Synthesis and Integration:** Findings from the medical literature were systematically integrated with Islamic jurisprudential principles. A *takyif fiqhi* (legal characterisation) framework was applied to align contemporary medical practice with Islamic bioethics.

This methodology ensures that the study provides not only a clinical overview but also an Islamic legal framework to guide policy and practice.

4. RESULTS & DISCUSSION

The findings of this study can be categorised into several domains:

1. **Islamic legal implementation of human skin bank**
2. **Islamic evidence for the necessity of building a human skin bank**
3. **Islamic ethical considerations**
4. **Fatwas in Malaysia**
5. ***Takyif fiqhi* (تكيف الفقهي) on human skin bank in Malaysia**
6. **Limitations of the study**

4.1 *Islamic Legal Implementation Of Human Skin Bank*

Addressing the ethical and legal dimensions of human skin banks requires a comprehensive approach (Heng, W. L. et al., 2020). Legislation must be developed to accommodate Islamic principles, ensuring that the rights and values of donors and recipients are respected. Furthermore, standardised guidelines and criteria for skin donation are essential for safe and ethical practices, respecting the dignity of the deceased (Hehsan, M. R., 2023). Laws or fatwas related to the issue of human skin banks are included in the framework of contemporary medical jurisprudence. Islamic medical jurisprudence refers to the scope of problems and debates, especially laws related to the field of medicine, according to the framework of arguments from the Qur'an, the Sunnah, Ijma' and qiyas (Hehsan, M. R., 2014).

Human skin banks are included in tissue banks, which supply human or animal tissue grafts for clinical use for patients. Just like transplanting the cornea of the eye and other body organs, tissue grafts aim to reduce patient suffering. This graft transfer will go through three steps, as follows (Hehsan, M. R., 2014; 2023).

1. Relieve pain and suffering, such as for cancer patients, where the diseased part can be saved by bone grafting. Patients with burns due to fire are treated with amniotic membranes and skin grafts for immediate healing.
2. For diseases that have no other option than using tissue grafts, such as saving a body part from being cut off entirely (amputation), only the defective part is removed and replaced with a bone graft for bone growth.
3. Maintaining the ability to walk or move (such as a patient's joint or patients whose joint replacement failed). Joints can be repaired effectively by using human bone grafts without the problem of "rejection", and can even stimulate the patient's own bone to grow and replace the graft. The joints will heal, and the patient will be able to move freely after the treatment.

The establishment of human skin banks presents a promising medical advancement, but in regions with significant Muslim populations, like Malaysia, it is vital to consider the Islamic legal and ethical dimensions. The discussion below explores the potential implementation of human skin banks within an Islamic legal framework.

4.1.1 *Permissibility in Islamic Jurisprudence*

Islamic jurisprudence varies on the permissibility of organ and tissue donation, including skin. Some Islamic scholars argue that organ and tissue donation, when deemed necessary for the benefit of saving a life or improving health, is permissible under the principle of necessity (*dharurah*) (Padela, A. I., & Auda, J., 2020; Hehsan, M. R., 2023). This principle is central to Islamic ethics, allowing for flexibility in situations of dire need. Following a review of the particular demands in medical practice for human skin banks, two viewpoints on this issue arise. The majority of contemporary jurists' viewpoint is permissible (*mubah*). However, before the establishment of a human skin bank is taken into consideration, a few requirements need to be fulfilled (Ismail Ghari Marhaba, 2007).

1. The bank must be owned by the government or an authorised body to represent and be supervised by the government.
2. The use of human skin at a rate determined by considering the expected requirements of the present time.

3. The skin part of the body that is removed needs to be carefully cared for; this includes determining whether to bury it and other considerations. The remaining part cannot be left as a waste product.

4.1.2 Informed Consent and The Principle of Intention (*niyyah*)

Islamic ethics place a strong emphasis on informed consent, requiring that individuals willingly and knowingly make decisions regarding organ or tissue donation. Donors must fully understand the implications of the procedure and provide explicit consent (Padela, A. I., & Auda, J., 2020). Additionally, the principle of intention (*niyyah*) plays a crucial role in ensuring that both donors and recipients have the right intentions and motivations for participating in such medical procedures. Therefore, Islamic ethics emphasise informed consent and the protection of human dignity (Muhsin, S. M., 2022). Skin donation should be conducted with full awareness and consent, respecting the rights and values of donors and recipients. By adhering to these ethical standards, the operation of a human skin bank is in harmony with Islamic principles.

عَنْ أَبِي هُرَيْرَةَ، قَالَ قَالَ رَسُولُ اللَّهِ - صَلَّى اللَّهُ عَلَيْهِ وَسَلَّمَ: " إِنَّمَا يُبْعَثُ النَّاسُ عَلَى نِيَّاتِهِمْ " .

It was narrated from Abu Hurairah that the Messenger of Allah (saw) said: "People will be resurrected (and judged) according to their intentions."

(Sunan Ibn Majah, 4229).

4.1.3 Equitable Distribution

Islamic ethics prioritise justice and fairness, which extends to the distribution of medical resources (Hehsan, M. R., 2021;2023). Ensuring that skin grafts from human skin banks are allocated equitably among patients is a moral obligation, taking into account the urgency and medical need of each case. This principle reflects the ethical foundation of Islam and underscores the importance of fair resource allocation.

إِنَّ اللَّهَ يَأْمُرُ بِالْعَدْلِ وَالْإِحْسَانِ وَإِيتَاءِ ذِي الْقُرْبَىٰ وَيَنْهَىٰ عَنِ الْفَحْشَاءِ وَالْمُنْكَرِ وَالْبَغْيِ ۚ يَعِظُكُمْ لَعَلَّكُمْ تَذَكَّرُونَ

Allah said: "Indeed, Allah commands justice, grace, as well as generosity to close relatives. He forbids indecency, wickedness, and aggression. He instructs you, so perhaps you will be mindful"

(An-Nahl, verse 90).

4.1.4 Ethical and Legal Framework Considerations

The ethical dimension of human skin banking also encompasses a variety of issues, including donor consent, fair distribution of the skin involved, and community perception (Hehsan, M. R., 2021;2023). Informed consent from donors or their families is important to uphold the autonomy and wishes or needs of donors and their families. The distribution of available skin resources among patients, too, must be provided equitably to avoid potential exploitation and ensure fairness. Public perception and understanding of skin donation also play a role in fostering an environment that supports skin banking initiatives. The legal framework governing human skin banks in regions with significant Muslim populations should be adapted to accommodate Islamic principles (Hehsan, M. R., 2021). Ensuring that the rights and values of donors and recipients are respected is imperative. This requires the development of standardised guidelines and criteria for skin donation, as well as rigorous oversight to guarantee ethical and safe practices. Looking at all of these aspects, most researchers and Islamic jurists put other conditions in place regarding the implementation of this human skin bank (Ismail Ghari Marhaba, 2007).

The implementation of this human skin bank must not violate human rights in maintaining personal safety or changing what God has created.

1. We need to protect human dignity, even if the skin is donated. We can't force anyone to do what they don't want in order to protect human dignity and self-will.
2. Shariah methods must always be maintained in relation to the human skin bank. For example, the bank's financial resources must be transparent, impurity (*Najis*) skin must be placed in its proper place, and skin must be pure and clean. If the skin is clearly impure in substance, it should not be used to maintain the requirements of the sharia method outlined in Islam.
3. Human life should not be misused, such as by misusing a foetus to get its skin and keep it in a bank.
4. This human skin bank cannot be used in cosmetic medicine that is unethical or does things that violate Sharia. For example, using this bank as a source for transgender surgery, criminal matters, or to reduce the sentence handed down by the court.
5. The construction process of this bank needs to be based on the law or government laws, and related acts need to be established as an organisation managed by the government and not a private body.

6. The source of the skin taken is a surplus from part of the surgery or from the skin of a corpse that has been given permission from the patient or family. They need to be informed regarding the use of the donated skin.
7. The use of human skin is not in the nature of buying and selling or exchanging valuables to protect the honour of the human as *Bani Adam*.

Some jurists also set the condition that the skin of the human body cannot be revealed for examination or experimental observation. There are also opinions that put the same conditions or rules as the fatwa, or law, on transplanting human organs.

4.2 Islamic Evidence For The Necessity Of Building A Human Skin Bank

In the realm of modern medicine, the establishment of a human skin bank represents a significant innovation, especially in addressing critical medical needs such as burn injuries, chronic wounds, and dermatological conditions. However, for regions with a substantial Muslim population, such as Malaysia, it is imperative to explore the Islamic evidence supporting the necessity of building and operating a human skin bank. The successful implementation of human skin banks within an Islamic legal framework necessitates collaboration between medical professionals and religious scholars. The expertise of religious scholars is vital in interpreting and applying Islamic jurisprudence to specific medical practices (Hehsan, M. R., 2014). This collaboration promotes understanding and acceptance of skin transplantation practices within the Islamic community.

4.2.1 Preservation of Life (*hifz al-nafs*)

Islamic jurisprudence places paramount importance on the preservation of life (*hifz al-nafs*). This principle underlines the ethical foundation of organ and tissue donation when it is necessary to save or improve a life. Building a human skin bank aligns with this principle by providing a crucial resource for the treatment of severe burn injuries, chronic wounds, and dermatological conditions. By facilitating timely and effective treatments, it contributes to the preservation of life, which is a fundamental Islamic objective.

4.2.2 The Principle of Necessity (*dharurah*)

Islamic law recognises the principle of necessity (*dharurah*) as a basis for certain actions that would otherwise be prohibited. When faced with medical emergencies and life-threatening conditions, Islamic ethics permit actions that may be otherwise restricted. In this context, building and operating a human

skin bank serves as a necessary means to fulfil the principle of necessity, as it addresses critical medical needs and mitigates suffering.

4.2.3 Compassion and Charity (*rahmah and sadaqah*)

Islam encourages acts of compassion and charity. The establishment of a human skin bank, with the goal of alleviating the pain and suffering of individuals with burn injuries, chronic wounds, and dermatological conditions, reflects these values. Skin donation, driven by compassion and the desire to help those in need, aligns with Islamic teachings of kindness and generosity.

4.3. Islamic Ethical Considerations

The Islamic evidence supports the necessity of building a human skin bank in regions with a significant Muslim population. The principles of preserving life, necessity, compassion, and charity are aligned with the goals of a skin bank. Building such institutions ensures access to critical medical resources and, when conducted in adherence to Islamic ethical principles, represents a valuable contribution to healthcare while respecting the core values of the Islamic faith (Ismail Ghari Marhaba, 2007). There is evidence in Islam that supports the implementation of human skin banks.

1. Based on evidence from the acknowledgement (*iqrar*) of the Prophet Muhammad SAW about the behaviour of the companions RA who kept slaughtering meat. Many hadiths related to this matter are quoted in the authoritative hadith books as follows: Sahih Bukhari: 474; Sahih Muslim: 4855; Sunan an-Nasa'i: 4428; Sunan Ibnu Majah: 3159; Musnad Ahmad: 1276; at-Tirmidhi: 1511; and Sunan Abi Daud: 3698.
2. The current needs require the implementation of this human skin bank. Looking at the existing medical cases, this need has fallen to the level of an emergency.
3. The future need for human skin banks is also a reality. Human skin should be taken when not needed for future use in times of dire need.
4. *Qiyas* to the necessity of building a blood bank.
5. The existence of this bank is a testament to the implementation of what must be done to fulfil human needs. This is one of the methods (*wasilah*) used as a general description of the *maqasid* sharia for protecting human life.

6. There is no argument that clearly prohibits the implementation of this bank.
7. The implementation of a human skin bank is based on the necessity of skin graft surgery and its conditions. This human skin bank will provide resources or supplies to meet the needs of this surgery. If this surgical treatment can treat human diseases, then the implementation of this bank should also be in accordance with Sharia as a necessity to maintain the continuity of human life.

4.4 Fatwas In Malaysia

The implementation of human skin banks within an Islamic legal framework in regions like Malaysia involves navigating complex ethical and legal considerations. The permissibility of skin donation, informed consent, equitable distribution, collaboration with religious scholars, and the adaptation of legal frameworks are essential aspects of this implementation. While it poses challenges, the integration of human skin banks within an Islamic legal framework is feasible and aligns with Islamic principles, providing a valuable resource for addressing medical needs within the Islamic community. Therefore, the fatwa in Malaysia has led to the implementation of this bank as a continuing medical necessity.

4.4.1 The Use of Tissue Grafts in Medical Practice

The current fatwa in Malaysia was issued by the National Council of Fatwa Committees for Islamic Religious Affairs of Malaysia in 1995. Other fatwas also revolved around organ and tissue transplants and the disposal of organs, tissues, and foetuses by Muslims. Referring to the issue of the use of tissue grafts in medical practice, the muzakarah has decided that:

1. The use of tissue grafts in medical practice is a necessity (*mubah*).
2. The use of tissue grafts is for medical purposes only.
3. The use is not misused for the purpose of being traded or otherwise.

4.4.2 Disposal of Organs, Tissues, and Foetuses of Muslims

Muzakarah Sabah State Fatwa Council No. 2 of 2017 has convened on May 23–24, 2017 (Syaaban 1438H), located in Seri Beringgis Room, TH Hotel & Residence, Kota Kinabalu, Sabah, to discuss the matter of "*Law on the Disposal of Muslim Organs, Tissues, and Foetuses*" and has agreed to decide to gazette in the State of Sabah that:

1. If the aborted foetus has no character (such as a piece of flesh or blood) and there are no signs of life, then it is wrapped and buried without being bathed and prayed for.
2. Body parts and clinical waste tissue from living Muslims should be disposed of by burying them without having to be bathed, shrouded, and prayed for.
3. Body parts and tissues of dead Muslims that are separated from the body but not bathed and prayed for should be buried without needing to be prayed for again. If it is not known whether the body has been bathed and prayed, the body parts and tissues of the dead Muslim should be bathed and prayed before being buried.
4. If the aborted foetus (born before full term) has early signs of life such as crying, movement, and the like, then the remains need to be taken care of as usual, i.e., bathed, shrouded, prayed for, and buried.
5. If the aborted foetus has character but does not have early signs of life, then it only needs to be bathed, shrouded, and buried without praying.
6. If the aborted foetus has no character (such as a piece of flesh or blood) and there are no signs of life, then it is wrapped and buried without being bathed and prayed for.

The Pahang State Shariah Law Consultation Committee meeting that convened on April 27, 2017, for the second time, discussed the disposal of Muslim organs, tissues, and fetuses. The meeting made the following decisions:

1. The meeting agreed to decide that the Law on the Disposal of Organs, Tissues, and Fetuses of Muslims should be managed based on Shariah.
2. If body parts are cut from the body during life, then they should be buried without washing and praying.
3. If it is a body part found after death, then it should be bathed, shrouded, prayed for, and buried.
4. If aborted fetuses (not full term) have signs of life but are normal, then they should be bathed, shrouded, and buried.

5. Aborted foetuses in the form of lumps of flesh are wrapped and buried without being bathed and prayed for.
6. The law of disposing of the body parts, foetuses and tissues of Muslims by burning is haram, except in an emergency (*dharurah*).

The Muzakarah Fatwa Committee of Negeri Sembilan State, No. 3/2018-1439H, which convened on March 29, 2018, at the same time as 11 Rajab 1439H, has agreed and decided on the Law on the Disposal of Muslim Organs, Tissues, and Foetuses with the following *sighah*:

1. Management of The Disposal of Muslim Organs and Tissues:

a) Body parts and tissues of living Muslims:

According to *Jumhur Fuqaha*, human body parts that are cut off from a body that is still alive should be buried without washing or praying, even if it is only a nail or hair.

b) Body parts and tissues of dead Muslims:

- According to the Hanafi and Maliki sects, if a large part of the corpse is found, then it should be bathed, shrouded, prayed for, and buried.
- For the Syafie and Hanbali sects, it should be bathed, shrouded, prayed for, and buried, even if a small part of the body is found.

2. Management Of the Disposal of Organs and Tissues for Non-Muslims.

It should be buried or burned according to their religious teachings.

3. Management Of Organs and Tissues That Endanger Health and Pollute the Environment:

- a) The organs and tissues removed and cut from the patient's body, whether Muslim or non-Muslim, should be buried.
- b) If the organs or tissues consist of a group of infectious diseases, then the hospital must eliminate the germs of the infectious disease with certain drugs, and then the organs or tissues must be implanted.

- c) The process of burning or cremation for the purpose of disposing of the organs and tissues of Muslims is not allowed unless there is no way or method to eliminate the germs of the disease. Then it is required that these organs or tissues be burned.

4. Foetal Management of Muslims According to The Syafie Sect:

- a) Foetuses born before the full gestation period (minimum) of six months and two days:
 - If the foetus's life is known, then it is obligatory to bathe and pray. He also has the right to inherit and bequeath his property according to the laws related to normal lives.
 - If its life is not known but it appears in human form, then it is obligatory to bathe without praying.
 - If the appearance of a human form does not appear, then it is not obligatory to bathe.

- b) Foetal born during and after the six-month, two-day period:

If the foetus is born in a dead state, it must be bathed and given a name on the condition that the spirit has breathed on it, and it is not entitled to inherit and bequeath the property. (Source: *Fiqh ala Mazahib al-Arba'ah*, Abdul Rahman al-Jaziry, Maktabah al-Taufiqiyyah, Volume 1, p. 457.)

5. Management Of Foetuses That Live for A While at Birth According to The Hanafi, Maliki and Hanbali Schools of Thought.

If it lives for a while after birth, then it should be given a name, bathed, and prayed for. He also has the right to inherit and bequeath his property according to the laws related to normal lives.

6. Management of A Foetus That Died at Birth

- According to the Hanafi sect, if the foetus comes out dead and there are no early signs of life, then it should be bathed, given a name, wrapped in a piece of cloth, and buried without prayer.

- As for the Maliki sect, if the foetus is not bathing and does not show any signs of life, such as crying or baby movement, it is considered dead. According to Ibn Syhab, it is not prayed for, but it can be buried with its mother.
- If there is no crying during birth or if the pregnancy is less than four months old, then it is not obligatory to bathe, shroud, and pray. However, it is advisable to shroud in cloth and bury without prayer.
- In the Hanbali sect, as Ibn Qudamah said, if the foetus has reached the age of four months or is complete, then it is bathed and prayed, even if there are no early signs of life, and it is advisable to give a name.

7. Existing Disposal Management Regulations

- a) Based on current practice, the concessionaire will dispose of all tissues, organs, and foetuses either as clinical waste or chemical waste by incineration.
- b) The process of burning for the purpose of disposing of all tissues, organs, and foetuses is not allowed unless there is no way or method to eliminate the germs of the disease. Then it is required to be burned.

8. The proposal to bury materials containing formalin and other chemicals (chemical waste).

The Ministry of Health Malaysia discussed the matter with the Department of Environment, and they suggested that the materials be buried in areas that are approximately 100 metres away from the source of water. In addition, it is also suggested that the burial place be close to existing graves as long as it is far from water sources, residential areas, wells, and dams.

4.5 *Takyif Fiqhi (تكيف الفقهي) On Human Skin Bank In Malaysia*

Takyif fiqhi, or legal characterization, is a critical process in Islamic jurisprudence that involves analysing contemporary issues within the framework of classical legal principles. In the context of human skin banks, this method enables scholars to assess the permissibility of harvesting, storing, and using human skin for medical purposes by aligning it with Shariah objectives and principles. Recent literature (Melika Heidarzadeh et al., 2023; Megahed, M. et al., 2021; Padela, A. I., & Auda, J., 2020) underscores the growing need for

ethical tissue banking in Muslim-majority contexts. While medical advancements are well-documented, there is minimal interdisciplinary discussion incorporating Islamic jurisprudence.

This study contributes a novel framework combining fiqh and clinical protocols, addressing the lacuna between bioethics and Islamic law. Malaysia has witnessed a progressive integration of medical jurisprudence with Islamic legal interpretation. Several state and national-level fatwas have authorised tissue and organ donation under specific conditions. However, critical gaps remain in operational clarity, ethical safeguards, and public acceptance.

Notably, the National Fatwa Committee's 1995 ruling permits the donation of skin and other tissues for medical purposes under the condition that it is not traded or misused. Yet, there remains ambiguity in its application, especially regarding donor anonymity, consent mechanisms, and posthumous dignity. The fatwas of Negeri Sembilan (2018), Pahang (2017), and Sabah (2017) further provide nuanced guidelines for the disposal of Muslim tissues, foetuses, and body parts, aligning with Islamic rituals and jurisprudential consistency.

The authorial analysis herein extends beyond summary to apply Islamic maxims to policy formation, proposing actionable guidelines for healthcare administrators. From a fiqhi perspective, human skin banking can be categorized under the broader theme of *'ibādāt* (acts of devotion) and *mu'amālāt* (transactions/interactions) involving the sanctity of the human body. The act of skin donation and transplantation, when performed with informed consent, clear intention (*niyyah*), and for a *maslahah 'āmmah* (public benefit), is consistent with the *Maqasid Shariah*, especially the preservation of life (*hifz al-nafs*).

This paper applies the following *qawā'id fiqhiyyah*:

1. الضَّرُورَاتُ تُبَيِّحُ الْمَحْظُورَاتِ – Necessities permit prohibitions: The use of human skin in life-saving or limb-saving procedures permits the otherwise prohibited handling of cadaveric remains.
2. الْمَشَقَّةُ تُجَلِّبُ التَّيْسِيرَ – Hardship begets ease: For burn patients, the lack of autologous graft options legitimises reliance on allografts.
3. لَا ضَرَرَ وَلَا ضِرَارَ – Harm should neither be inflicted nor reciprocated: Ensuring donor dignity and informed consent safeguards this principle.
4. التَّصَرُّفُ عَلَى الرَّعِيَةِ مَنُوطٌ بِالْمَصْلَحَةِ – The authority's action over the subjects is contingent upon their welfare: Institutional establishment and regulation of skin banks by state authorities aligns with this.

Furthermore, the study analogically compares human skin banking to established fatwas on corneal, bone, and blood donations, all of which have received scholarly endorsement under conditions of necessity and ethical oversight. Consequently, the establishment of skin banks is not only legally permissible but may be regarded as a communal obligation (*fard kifayah*) in the context of advanced medical care for burn victims and trauma patients.

4.6 Limitations Of The Study

In general, the implementation of human skin banks includes Islamic laws related to the use of tissue grafts specifically for medical clinical practice. The scope of this study is only focused on clinical medicine. This does not deny that with the advancement of available technology, which is constantly developing, the use of human skin will be more extensive than its use in the medical field. The use of human skin other than in the medical field may be a subject of study in the future.

5. CONCLUSION

The establishment of human skin banks within Malaysia represents a significant confluence of medical advancement and Islamic legal-ethical accommodation. By critically analysing contemporary fatwas, Islamic legal maxims, and recent medical developments, this paper affirms that the operation of human skin banks is not only permissible under Islamic law but constitutes a necessary initiative in preserving life and public welfare. The alignment with *Maqasid Shariah*, particularly *hifz al-nafs*, provides strong theological grounding for this practice. To ensure the successful implementation of human skin banks in Malaysia, stakeholders must prioritise Shariah-compliant governance, inclusive fatwa development, public education, and ethical oversight. This study advocates for the institutionalisation of interdisciplinary panels that include Shariah experts, medical practitioners, and legal authorities to standardise practices across the country. As medical technologies evolve, continued Islamic bioethical engagement will be indispensable in safeguarding the spiritual and physical well-being of the Muslim ummah.

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