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Research Article

A Descriptive Study to Assess the Knowledge and Attitude regarding Skin Donation Among the Undergraduate Students

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A B S T R A C T

Introduction: The skin is our body's most diverse organ. Skin donation is a life saving act where healthy human skin is donated, usually after death, to help individuals who have suffered severe skin loss due to burns, injuries, or certain medical conditions. The main objective of the present study was to assess the knowledge and attitude regarding skin donation among the undergraduate students.

Method: A quantitative research approach along with descriptive research design was used. Convenient sampling technique was used to collect data through online mode from 110 undergraduate students of Rufaida College of Nursing, Jamia Hamdard, New Delhi during the month of April 2025. Structured knowledge questionnaire and Structured rating scale was used to assess the knowledge and attitude regarding skin donation. Descriptive statistics was used to analyze the data.

Result: The study revealed that out of 110 participants, only 5(4.54%) students having adequate knowledge, 66(60%) having moderately adequate knowledge and 39(35.45%) were having inadequate knowledge regarding skin donation while 78(70.90%) students were having favourable attitude and 32(29.09%) students shown unfavourable attitude regarding skin donation.

Conclusion: The present study found that most participants showed a favourable attitude towards skin donation while only a small proportion had adequate knowledge. This indicates a clear gap between knowledge and attitude. Bridging this gap through targeted educational intervention is essential to enhance knowledge and promote actual participation in skin donation. Incorporating public awareness campaigns, community workshops and training program.

Keywords: Skin Donation, Knowledge, Attitude, Undergraduate Students.

Introduction

According to Cambridge Dictionary, Donation is defined as something that you give in order to help a person or organization, or the act of giving something in this way. Skin donation is significant and lifesaving procedure where healthy skin is donated by an individual, usually after their death, to help burn victims or those with severe skin injuries. It is a form of tissue donation that plays a vital role in modern medicine.

The concept of skin donation and grafting dates to ancient times but it evolved significantly with advancements in medical science. In ancient period, skin grafting was first recorded in India around 800 BCE, described in the medical texts of Sushrut, an ancient surgeon. He detailed techniques for reconstructive surgeries, including skin graft typically for nose reconstruction[1].

Donated skin is primarily used for treating severe burns injuries, as it acts as a temporary biological dressing, reducing pain, preventing infections and promoting healing. In 1940s-1950s, during World War II, the significant need for burn treatment led to significant advancements with cadaveric skin as temporary coverage for burns.[2] In 1950s, skin banks were established to collect and preserve cadaver skin, particularly in the United States and Europe. In 1960s-1980s, freezing and cryopreservation techniques refined, allowing donated skin to be stored for long periods.[3] In modern times, skin donation has become more organized with regulated protocol for donation and storage it is now a part of tissue donation programs.

Skin grafts from donors are used to treat Burn victims, patients with severe skin loss (from infection and surgeries) and reconstructive surgeries (skin cancer or trauma). Anyone over the age of 18, even a 100-yr old can pledge to donate skin regardless of skin type. Anyone 's skin can be transplanted on anyone there is no blood matching, no colour matching, no age matching required. During the procedure, after death skin is harvested from areas like the back, thighs or legs within 6 hours. The procedure is non-invasive and does not disfigure the donor's body. They need to provide the death certificate and its photocopy which will be evaluated by the team of doctors before starting the procedure.[4]

They do not have to pay anything the skin donation team, selling and buying it is illegal. To preserve the skin, it is harvested and sent to a skin bank, where it is processed and stored for future use. India faces a significant shortage of skin donors despite the increasing need. awareness campaigns by hospitals, NGOs and skin banks aim to educate the public about the life saving potential of skin donation. Prominent skin banks in India such as The National Burns Center, Mumbai and Skin Bank in Chennai are working to bridge the gap. To pledge for skin donation, firstly register with a recognized skin bank or organ donation organisation, secondly and most importantly inform the family members about the decision to ensure that wishes are honoured. Skin donation is a very noble act that gives burn victims a second chance at life. By pledging to donate skin, one can contribute to a cause that transforms lives and bring hope to those in need.[5]

Subjects and Methods

Quantitative research approach was adopted for this study with a descriptive research design and a convenient sampling technique. The setting of the study was at the Rufaida College of Nursing, Jamia Hamdard, New Delhi. The sample of the study comprised 110 undergraduate students of Rufaida College of Nursing, Jamia Hamdard. Permission was obtained from the Principal, Rufaida College of Nursing. Jamia Hamdard, New Delhi to conduct the research. The consent was taken from each participant. The tool was developed and organized into 3 sections, Section A included the demographic characteristics of study participants, Section B includes structured knowledge questionnaire with 20 questions for findings related to knowledge on skin donation and Section C includes structured rating scales with 12 item to assess the participants attitude towards skin donation.[6]

The validity of the tool was validated by 7 experts. 1 Assistant Prof. (plastic surgery), 2 Nursing Officer (skin bank, burns & plastic ward), 4 experts from Medical Surgical Nursing department.

Necessary modifications were incorporated based on their suggestions. A pilot study was conducted on 10 subjects. The result of pilot study was feasible. After pilot study, the final study was conducted on 110 samples with the use of descriptive statistics for data analysis.

Discussion

The current study was designed to examine the knowledge and attitude regarding skin donation. In terms of knowledge, the findings reveals that 60% of students demonstrated moderately adequate knowledge, while 35.45% had inadequate knowledge, and only a small fraction (4.54%) showed adequate knowledge. This suggests that while awareness exists, depth of understanding is still lacking. Encouragingly, the attitude results were more positive, with 70.9% of students showing a favourable attitude toward skin donation. However, 29.09% still held unfavourable views, which could act as a barrier to donation advocacy. Overall, it highlights a clear need for enhanced educational

initiatives, awareness programs, and curriculum integration to improve both the knowledge and acceptance of skin donation among nursing students. These efforts can empower future nurses to educate others and promote skin donation in the wider community.[7]

A similar study was conducted by Sangeetha R, Gowri R, who carried out a cross-sectional study to assess the knowledge regarding skin banking among student nurses in selected college Namakkal District, Tamil Nadu (2019). The analysis exposed a notable deficiency in knowledge about skin banking among student nurses, raising concerns about their preparedness in this area. Out of 30 participants, a significant majority (83%) demonstrated inadequate knowledge, while only 17% showed moderate understanding, and none possessed adequate knowledge in this area. The findings of the study indicate that there is a lack of sufficient knowledge of skin banking and shortage of banked skin which will be solved by raising the willingness of the population to donate skin in skin banking.[1]

Another comparable study published by Kanesu S, Ekanayake G, conducted a cross-sectional study at the National Hospital of Sri Lanka to assess ICU staff's knowledge and awareness of deceased donor skin harvest. Using a self-administered questionnaire with 140 participants, they found significant knowledge gaps—only 40% of nurses and 60% of doctors were aware of cadaveric skin donation. Although most participants knew grafting is a purpose of skin donation, few understood that tissue or blood matching is not required. The study underscores the need for targeted educational programs and recommends repeating the study after awareness initiatives, such as distributing informational leaflets. Findings of the study suggests that improving knowledge could enhance willingness to donate skin and help address donor shortages.[2]

Conclusion

The present study concludes that although a limited number of participants exhibited adequate knowledge about skin donation, a significant majority displayed a favourable attitude towards it. This highlights a noticeable gap between knowledge and attitude, suggesting the needs for targeted educational intervention to enhance the knowledge levels while reinforcing the existing favourable attitude.

While participants may exhibit a generally favourable attitude towards skin donation, this alone may not translate into informed decision-making or active participation. Therefore, to achieve more effective outcomes and promote actual donor registration and awareness, it is essential to implement educational intervention that bridge the gap between attitude and knowledge, this can include- public awareness campaigns, community workshop and training program.

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