MEDIKA ALKHAIRAAT : JURNAL PENELITIAN KEDOKTERAN DAN KESEHATAN 8 (2): 1646-1652
e-ISSN: 2656-7822, p-ISSN: 2657-179X

A PROFILE ANALYSIS AND MEDICOLEGAL ASPECTS OF FORENSIC DOCTORS IN PATIENTS UNDERGOING KIDNEY TRANSPLANTATION AT DR. SARDJITO GENERAL HOSPITAL IN 2024

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ABSTRAK

Transplantasi ginjal merupakan prosedur medis yang penting untuk menggantikan ginjal yang mengalami kerusakan atau gagal fungsi dengan ginjal yang sehat dari donor. Transplantasi ginjal memberikan harapan hidup yang lebih baik dan kualitas hidup yang meningkat dibandingkan metode lain seperti cuci darah. Penelitian ini bertujuan mendeskripsikan profil demografis dan karakteristik pasien yang menjalani transplantasi ginjal di RSUP Dr. Sardjito pada tahun 2024, dengan mempertimbangkan aspek medikolegal yang terkait. Metode yang digunakan adalah deskriptif observasional retrospektif dengan data yang diperoleh dari dokumentasi medis pasien. Hasil penelitian menunjukkan mayoritas pasien adalah laki-laki (25 dari 33 responden) dengan rentang usia dominan 30-40 tahun. Tingkat pendidikan yang paling umum adalah lulusan sarjana (S1), dan pekerjaan terbanyak adalah wiraswasta dan karyawan swasta. Hubungan sosial yang paling sering tercatat adalah hubungan dengan atasan kerja. Sebagian besar pasien didiagnosis dengan Chronic Kidney Disease (CKD), dan hanya sebagian kecil yang mengalami kanker ginjal. Penelitian ini memberikan gambaran menyeluruh yang dapat menjadi dasar pengambilan keputusan klinis dan kebijakan terkait transplantasi ginjal. Regulasi dan aturan hukum tentang transplantasi ginjal di Indonesia baik dari Undang-Undang Nomor 17 tahun 2023, Peraturan Pemerintah Nomor 53 Tahun 2021, Permenkes Nomor 38 tahun 2016, serta Permenkes Nomor 37 tahun 2014. Peran dokter spesialis forensik dan medikolegal dalam pelaksanaan transplantasi ginjal di fasilitas kesehatan menurut Permenkes Nomor 38 Tahun 2022.

Kata kunci: Transplantasi Ginjal, Profil Pasien, Hukum, Dokter Forensik

ABSTRACT

Kidney transplantation is an essential medical procedure to replace a damaged or non-functioning kidney with a healthy one from a donor. It offers better life expectancy and improved quality of life compared to other treatments such as dialysis. This study aims to describe the demographic profile and characteristics of patients undergoing kidney transplantation at RSUP Dr. Sardjito in 2024, taking into account the associated medico-legal aspects. The method used was a retrospective observational descriptive design, with data obtained from patient medical records. The results show that the majority of patients were male (25 out of 33 respondents), with the dominant age range being 30–40 years. The most common level of education was bachelor's degree (S1), and the most frequent occupations were self-employed individuals and private employees. The most frequently recorded social relationship was with work supervisors. Most patients were diagnosed with chronic kidney disease (CKD), while only a small number had kidney cancer. This study provides a comprehensive overview that can serve as a basis for clinical decision-making and policy development regarding kidney transplantation. Legal regulations on kidney transplantation in Indonesia are governed by Law Number 17 of 2023,

Government Regulation Number 53 of 2021, Ministry of Health Regulation (Permenkes) Number 38 of 2016, and Ministry of Health Regulation (Permenkes) Number 37 of 2014. According to Ministry of Health Regulation (Permenkes) Number 38 of 2022, forensic and medico-legal specialist doctors play a role in the implementation of kidney transplantation in healthcare facilities.

Keywords: *Kidney Transplantation, Patient Profile, Law, Forensic Doctor*

INTRODUCTION

Kidney transplantation is an important medical procedure to replace a damaged or non-functioning kidney with a healthy kidney from a donor. This process is essential for patients with end-stage kidney disease who cannot perform normal kidney functions. Kidney transplantation provides better life expectancy and improved quality of life compared to other methods such as dialysis.[1]

Besides body function improvement, kidney transplantation also presents medical and ethical challenges, including donor availability and organ rejection risks. The development of technology and community awareness become important factors in the success of kidney transplantation. With a good understanding of these procedures and challenges, it is hoped that kidney transplantation can become an effective solution for kidney failure patients.[1]

RSUP Dr. Sardjito Yogyakarta has been implementing kidney transplantation procedures since 1991 and until 2023, has handled 112 kidney transplant patients. During the period from 2017 to 2023, 78 transplant cases were recorded, with three of them being pediatric patients aged 8 to 18 years. The success rate of transplantation is quite high, although some cases of organ rejection still occur, which are caused by irregular medication consumption, infections, and malignancy complications. The causes of kidney damage in patients are varied, ranging from kidney stones, progressive cystic disease, to kidney leakage.

Article 123 of Law Number 17 of 2023 concerning Health states that in order to cure diseases and restore health, one of the efforts that can be undertaken is organ and/or body tissue transplantation. And for the purpose of curing diseases and restoring health, kidney transplantation is prohibited from being commercialized or sold under any pretext. In order to guarantee legal protection and provide legal certainty in kidney transplantation activities, legal regulations in Indonesia have regulated the implementation of transplantation activities in laws, namely the Health Law, as well as other regulations below it that are harmonious with the rules above them. [2,3]

This study aims to analyze the demographic profile of patients undergoing kidney transplantation at RSUP Dr. Sardjito during 2024 and to examine the medico-legal aspects related to the transplantation process.

METHODS

This study uses a descriptive approach with retrospective observational methods. Patient data undergoing kidney transplantation at RSUP Dr. Sardjito in 2024 will be collected through medical documentation studies. Data is taken from medical records of 33 patients recorded with various attributes including gender, age, education level, occupation, social relationships, and medical diagnosis. Data analysis is conducted using descriptive statistics to describe patient profiles, as well as qualitative analysis to evaluate medico-legal aspects. Data collection and analysis are conducted with attention to research ethics, including maintaining patient confidentiality. The inclusion criteria for this study are data of kidney transplant patients officially recorded at RSUP Dr. Sardjito during the period from January 2024 to December 2024 and well documented. Meanwhile, the

exclusion criteria include cases with incomplete or unreadable data on the variables studied and cases that have been examined but the files are not found or lost from medical records archives or medical notes. Research data is obtained from the Central Administration Building of RSUP Dr. Sardjito. The research variables in this study are age variables, gender, age, education level, occupation, social relationships, and medical diagnosis. Analysis is conducted descriptively and presented in the form of graphical visualization.

For the medico-legal aspect, researchers use normative legal research methods by searching and analyzing legal regulations in Indonesia regarding kidney transplantation.

RESULTS

The number of kidney transplant data at RSUP Dr. Sardjito in 2024 was 40 cases, with 33 research subjects meeting the inclusion criteria, while 7 data were included in the exclusion criteria, and further analysis was conducted in this study.

The data analyzed consists of 33 individuals with various characteristics listed in the data columns such as gender, age, education, occupation, relationships, and diagnosis.

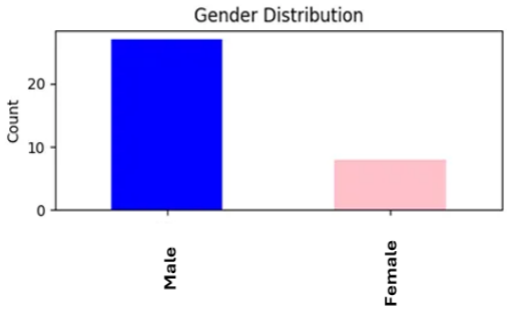

Figure 1. Gender Distribution

Most respondents are male, numbering 25 people (75.76%), while females number 8 people (24.24%). This indicates the dominance of male gender in the sample data.

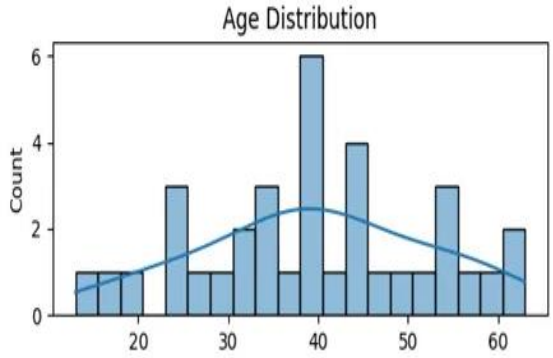

Figure 2. Age Distribution

The age range of respondents varies from teenagers to elderly, with the most numerous age group falling in the 30–40-year range. This age distribution shows a wide variation in respondent ages but tends to be concentrated in productive age groups.

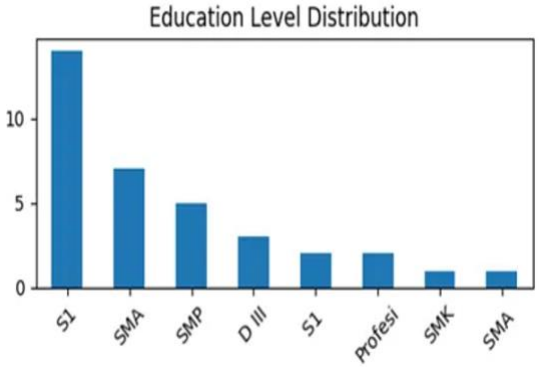

Figure 3. Education Distribution

In terms of education, most respondents are educated up to the bachelor's degree level (S1) with approximately 18 people (54.55%), followed by senior high school (SMA) with 10 people (30.30%), and junior high school (SMP) with 5 people (15.15%). This indicates a diverse educational background dominated by university graduates.

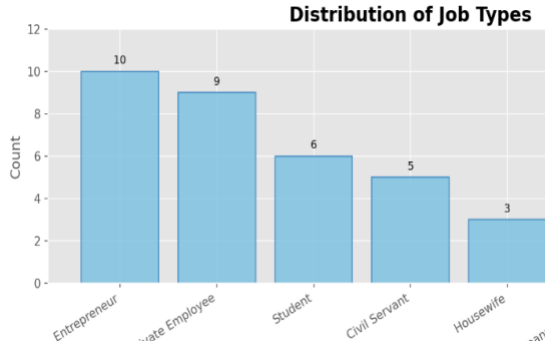

Figure 4. Occupation Distribution

From the available data, the most common occupation is Self-employed with 10 occurrences (30.30%), followed by Private employees with 9 occurrences (27.27%). Other occupations, such as Students, Civil servants, and Housewives, account for the remaining 14 respondents (42.42%), indicating that most respondents work in the self-employed and private sectors..

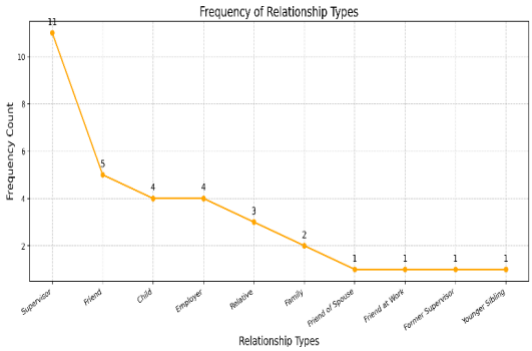

Figure 5. Relationships Distribution

In terms of recorded relationships, the most dominant type of relationship is Work Supervisor, with a frequency of 11 occurrences. This indicates a significant amount of formal interaction between respondents and their supervisors. Other relationships, such as Children, Relatives, Employer, and Friends, are also recorded but with lower frequencies, showing a mix of personal and professional relationships in the context of work. A sense of gratitude emerges specifically when someone receives substantial help or kindness, such as a kidney donation from a work supervisor. In the context of kidney transplantation, if a work supervisor donates their kidney to an employee or subordinate, it creates a strong emotional and moral bond.

From the kidney recipient's perspective, gratitude is usually manifested in various forms, such as greater loyalty to their supervisor, higher work commitment, or special attention in their professional relationships. On the other hand, kidney donation by a work supervisor not only provides significant health benefits but also strengthens mutual trust and appreciation in the work relationship.

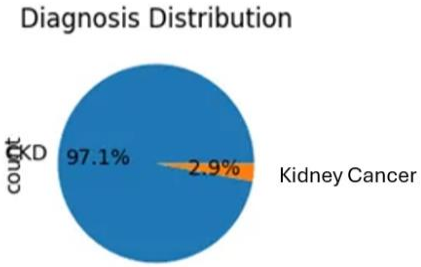

Figure 6. Diagnosis Distribution

In terms of diagnosis, the data shows that nearly all respondents were diagnosed with chronic kidney disease (CKD), with only a small portion experiencing kidney cancer. This indicates that the focus is on CKD within the data population presented.

In Law No. 17 of 2023 on Health, in the twenty-first section on Organ and/or Body Tissue Transplantation, Cell-based Therapy and/or Stem Cells, as well as Reconstructive and Aesthetic Plastic Surgery, in Paragraph 2 which includes articles 124 to 134, transplantation is discussed generally whereby transplantation is carried out for the purpose of curing diseases and restoring health for humanity, and is prohibited from being commercialized or sold for any reason whatsoever. Furthermore, the discussion covers donor criteria, health service facilities, transplantation principles, and the authority of the government at both central and regional levels in implementing transplantation. It is also discussed that further provisions

regarding transplantation implementation will be regulated by Government Regulation.[3]

In Government Regulation No. 53 of 2021 on Organ and Body Tissue Transplantation, further discussion is provided regarding hospitals that implement organ transplantation, donor and recipient requirements, registration procedures for donors and recipients, rights and obligations of donors and recipients, funding of transplantation activities, as well as community participation in transplantation activities.[4]

Ministry of Health Regulation Number 38 of 2016 on Organ Transplantation Implementation discusses more technical aspects of organ transplantation implementation in Indonesia, government responsibilities in this regard, including the establishment of the National Transplantation Committee.[5]

The utilization of organs from deceased donors is further discussed in Ministry of Health Regulation Number 37 of 2014 on Determination of Death and Utilization of Donor Organs, where its implementation must comply with religious norms, morals, and ethics. Consent from the donor during their lifetime, family consent, as well as organ utilization from corpses related to criminal cases with donor consent can be carried out in accordance with legislation. Furthermore, the utilization of organs from deceased donors must be recorded and reported according to legislation.[6]

According to Ministry of Health Regulation of the Republic of Indonesia Number 38 of 2022 on Medical Services for Legal Purposes, forensic documentation for living persons at health facilities is conducted for various cases, including victims of other cases. In article 12, it is explained that "other cases" refer to cases related to legal processes or potentially problematic legal issues. This has broad implications, meaning that cases handled at health facilities that have potential legal problems must be managed by Forensic and Medico-legal services at those health facilities. Kidney transplantation activities are procedures that involve legal issues and fall within the competency of Forensic and Medico-legal specialist doctors.[7]

According to the Annex of Indonesian Medical Council Regulation Number 66 of 2020 concerning Standards for Forensic and Medico-legal Specialist Doctor Professional Education, which refers to the Decree of the Minister of Research, Technology, and Higher Education of the Republic of Indonesia Number 257/M/KPT/2017 concerning Study Program Names at Universities, the name of the Forensic Medicine Specialist Program was changed to the Forensic Medicine and Medicolegal Studies Specialist Program (Forensic Medicine and Medicolegal Studies). Consequently, the graduate degree title was changed from Forensic Specialist (Sp.F) to Forensic and Medico-legal Specialist (Sp.F.M). This also expands the competency of forensic specialists to enter a new field, namely medico-legal studies. In the same annex, one of the competencies that must be possessed by forensic and medico-legal specialists is providing medico-legal advocacy in medical practice and actively participating in hospital ethics and medico-legal teams. Additionally, the list of skills that Sp.F.M must possess includes making Ethical Decisions on clinical cases and ethical dilemmas, and Medico-legal Informed Consent, where kidney transplantation activities require these elements.[8]

DISCUSSION

Based on the distribution of respondent characteristics, the predominance of men in this study aligns with global epidemiological findings showing that men have a higher prevalence of chronic kidney disease (CKD) than women. This is thought to be related to biological factors, health behaviors, and risk exposures such as hypertension and smoking

habits, which are higher in men.[10] Furthermore, the age distribution, dominated by the productive age group (30–40 years), indicates that CKD is not only a problem for the elderly but also has a significant impact on the working-age population, potentially reducing productivity and quality of life.

In terms of education, the majority of respondents had a college degree (bachelor's degree), which may reflect a higher level of health literacy. Health literacy plays a crucial role in decision-making regarding advanced therapies such as kidney transplantation, including understanding the risks, benefits, and ethical and legal aspects involved.[12] However, a high level of education does not always guarantee access to transplant services, as economic factors, donor availability, and referral systems also play significant roles.

The distribution of employment, dominated by self-employed individuals and private sector employees, suggests a link between employment status and access to healthcare services. Individuals with informal or non-governmental employment tend to have limited health insurance coverage, which can influence the timing of diagnosis and the decision to undergo a kidney transplant. This aligns with research indicating that socioeconomic status is a significant determinant of access to renal replacement therapy.[11]

Aspects of the donor-recipient relationship that demonstrate the dominance of professional relationships, such as those involving superiors, offer interesting perspectives in medicolegal and ethical studies. Kidney transplantation in the context of non-familial relationships has the potential to raise ethical dilemmas, particularly related to the possibility of psychological distress, conflicts of interest, or imbalances in power relations. Therefore, rigorous evaluation through a comprehensive informed consent process and independent assessment is necessary to ensure that the donor provides voluntary consent without any coercion.[9]

From a diagnostic perspective, the predominance of CKD as an indication for transplantation indicates that this disease remains a major health burden. End-stage CKD (ESRD) is a condition that requires renal replacement therapy, either dialysis or transplantation. Compared with dialysis, kidney transplantation has been shown to provide a better quality of life and a longer life expectancy.[13] Therefore, increasing access to kidney transplantation is an important strategy in the management of CKD.

In the regulatory context in Indonesia, various laws and regulations comprehensively regulate organ transplantation, encompassing ethical, legal, and technical aspects. This demonstrates that transplantation is not merely a medical procedure but also involves complex legal and social dimensions. The role of forensic and medico-legal specialists is crucial in ensuring that all procedures comply with legal principles, ethics, and human rights protection. The involvement of medico-legal personnel is also crucial in preventing illegal practices such as organ trafficking and ensuring the validity of donor consent.

Overall, the results of this study confirm that kidney transplantation is a multidimensional intervention influenced by clinical, social, economic, and regulatory factors. Therefore, an interdisciplinary approach involving medical, legal, and social professionals is essential to improve the success and safety of kidney transplantation in Indonesia.

CONCLUSION

This study reveals that the majority of kidney transplant recipients at RSUP Dr. Sardjito in 2024 were males of productive age (30-40 years), highly educated, employed in the private sector or self-employed, and primarily diagnosed with Chronic Kidney

Disease (CKD). Furthermore, the hospital's transplantation practices were found to strictly adhere to all applicable Indonesian health laws and legal regulations.

These findings highlight that kidney transplantation remains the superior therapeutic choice over dialysis to enhance life expectancy and quality of life, particularly for working-age CKD patients. Additionally, the study underscores the essential role of forensic and medico-legal specialists within hospital ethics committees to provide legal advocacy, mitigate potential regulatory risks, and ensure full compliance throughout the organ transplantation process.

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