



ORIGINALS

Explaining Indonesian Patients' Experiences About Changes in the Hemodialysis Cost System

Explicando las experiencias de los pacientes indonesios sobre los cambios en el sistema de costos de la hemodiálisis

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ABSTRACT

Aim: To explore the experience of haemodialysis patients in Indonesia over a decade, amidst changes in the cost system in hospitals. Since its implementation, the Universal Health Coverage (UHC) policy has significantly influenced haemodialysis services in hospitals, affecting patients' experiences.

Material and Methods: Qualitative study. Twenty-two haemodialysis patients selected by snowball sampling from the Indonesian Dialysis Patient Community (Komunitas Pasien Cuci Darah Indonesia) participated. Data were collected through interviews, transcribed and analysed thematically, and psychological methods based on patients' experiences were used.

Results: identified three main themes (health coverage system, haemodialysis services, haemodialysis facilities) and ten sub-themes (complex monthly payment situation for care recipients, unexpected deactivation of payment status, outdated referral system requirements, payment system complications for care recipients, penalty for late payments, disparities in services between hospitals, insufficient coverage for certain services, accessibility problems with distant haemodialysis units, variations in types of haemodialysis equipment, and inadequate comfort in the family waiting room).

Conclusions: The health insurance system needs to be improved to increase access, equity, affordability, efficiency, consistency and quality of haemodialysis services in Indonesian hospitals. Collaborative efforts by the government, health institutions and related parties are essential.

Translated with DeepL.com (free version)

Key words: Health services, Health system, Hemodialysis, Universal Health Coverage, Qualitative study.

RESUMEN:

Objetivo: explorar la experiencia de los pacientes de hemodiálisis en Indonesia durante una década, en medio de cambios en el sistema de costos en los hospitales. Desde su implementación, la política de Cobertura Sanitaria Universal (CSU) ha influido significativamente en los servicios de hemodiálisis en los hospitales, afectando a las experiencias de los pacientes.

Material y Métodos: Estudio cualitativo. Participaron veintidós pacientes de hemodiálisis seleccionados mediante un muestreo por bola de nieve de la Comunidad de Pacientes de Diálisis de Indonesia (Komunitas Pasien Cuci Darah Indonesia). Los datos se recopilaron mediante entrevistas, se transcribieron y analizaron temáticamente y se utilizaron métodos psicológicos basados en las experiencias de los pacientes.

Resultados: identificados tres temas principales (sistema de cobertura de salud, servicios de hemodiálisis, instalaciones de hemodiálisis) y diez subtemas (situación de pago mensual compleja para los beneficiarios de asistencia, desactivación inesperada del estado de pago, requisitos del sistema de referencia obsoletos, complicaciones en el sistema de pago para los beneficiarios de asistencia, penalización por pagos atrasados, disparidades en los servicios entre hospitales, cobertura insuficiente para ciertos servicios, problemas de accesibilidad con unidades de hemodiálisis distantes, variaciones en los tipos de equipos de hemodiálisis y comodidad inadecuada en la sala de espera familiar).

Conclusiones: necesario mejorar el sistema de seguro de salud para aumentar el acceso, la equidad, la asequibilidad, la eficiencia, la uniformidad y la calidad de los servicios de hemodiálisis en los hospitales de Indonesia. Imprescindible que el gobierno, las instituciones sanitarias y las partes relacionadas realicen esfuerzos de colaboración.

Palabras clave: Servicios de salud, Sistema de salud, Hemodiálisis, Cobertura Universal de Salud, Estudio cualitativo.

INTRODUCTION

Universal Health Coverage (UHC) is a policy applied to most low- and middle- income countries (1). In Indonesia, UHC is known as *Jaminan Kesehatan Nasional (JKN)* or the National Health Insurance Program, which has been implemented since 2014 (2). The *JKN* participant group consists of: (1) the subsidized group, known as Contribution Assistance Recipients (*Penerima Bantuan Iuran, PBI*) which comprises the poor and individuals with disabilities; and (2) the contributor group, consisting of Wage Receiving Worker Participants (*Pekerja Penerima Upah, PPU*) - encompassing wage-earning employees from both government and private sectors - as well as Non-Wage Receiving Workers (*Pekerja Bukan Penerima Upah, PBPU*) and non-employee participants (3). Hemodialysis is among the services covered by *JKN* (4).

The prevalence of patients requiring dialysis therapy is increasing in several countries. In 2017, it was estimated that a total of 850 million people were living with Chronic Kidney Disease (CKD), which is double the global prevalence of diabetes (5). According to the 11th Report of the Indonesian Renal Registry, Indonesia experiences yearly rise in patients undergoing hemodialysis. In 2019, there were approximately 17,193 new patients and 11,689 active patients, with a death rate reaching 2,221 (6).

Factors contributing to hemodialysis adherence include satisfaction, self-efficacy, acceptance, and social support (7), along with factors such as female gender, lower education, and transportation availability (8). The perceived experience of long-term hemodialysis aligns with the patient's experiences exceeding ten years, including the determination to persevere despite challenges, establishing personalized dietary principles, engaging in physical activity with the remaining strength, and striving for independence (9). Cost emerges as the most important factor influencing the sustainability of regular hemodialysis (10). Additionally, a majority of CKD sufferers are

unable to work due to their physical condition and the need for regular hemodialysis sessions every week (11).

Patients in Indonesia who have undergone hemodialysis for over ten years have experienced changes in the costs associated with the procedure due to the implementation of the JKN policy since 2014. Before the availability of *JKN*, the majority of patients either self-funded their hemodialysis treatment, relied on private insurance, or obtained insurance through a certificate of incapacity based on local government quotas. Following previous studies in China, an insurance model with an independent payment system was found to enhance the survival rates of patients undergoing hemodialysis (12). There are limited studies exploring experience of Indonesian patients regarding changes in the hemodialysis cost system through a qualitative thematic analysis approach.

This study aims to explain the experience of Indonesian patients regarding changes in the hemodialysis cost system through a qualitative thematic analysis approach. In our work, the following main experiential question was formulated: please share your experience regarding the hemodialysis treatment you are currently undergoing and explain your experience in accessing hemodialysis when the payment system changed?

MATERIAL AND METHOD

Design

The descriptive qualitative with in-depth interviews and thematic analysis approach. This study complies with the recommendations of the Consolidated Criteria for Reporting Qualitative Research (COREQ)(13).

Data collection

This method allows us to understand the experiences of hemodialysis patients in the changing hemodialysis cost system in Indonesia. Participant data collection was carried out using semi-structured, in-depth, face-to-face interviews lasting between 45 to 70 minutes, with an average duration of 55 minutes. Two researchers acted as interviewers in data collection. One researcher conducted the interviews and another researcher took notes in the field note relating to the participants' expressions, gestures and responses. The location and timing of the interviews were determined based on participant preference, convenience, and outside of scheduled hemodialysis sessions. When collecting data, sometimes there is family who accompanies, but does not interfere with the process. Each participant was interviewed two to three times. Data collection took place over a two-months period, specifically from January to February 2024.

The researcher explained the research objectives at the beginning of each interview.

The researcher explained the researcher's educational background, research experience and guaranteed the confidentiality of the interview results to increase participant trust. Following the collection of demographic data, the main interview questions were asked openly. Subsequently, participants' responses were followed by

additional inquiries at eliciting information regarding their experiences with changes in hemodialysis costs. The interview sessions were recorded and conducted in Bahasa Indonesia. An interview guide (questions) and field note was prepared before interview begin. To obtain reliability the interview question, we implemented interview protocol by research previous. The question asked to participants was “how was the patient's payment experience while undergoing hemodialysis for more than ten years?”

Sample

Sampling was carried out by snowball sampling of members of the Indonesian Dialysis Patient Community (*Komunitas Pasien Cuci Darah Indonesia*, KPDCI). The sampling process involved obtaining a permission letter from the Faculty of Nursing, Universitas Airlangga, addressed to the chairman of KPDCI. Subsequently, the chairman of KPDCI, serving as the key person, disseminated an announcement about our research. The sample criteria required participants to be at least 18 years old, undergoing hemodialysis for over ten years, and possessing literacy skills. Patients also needed to demonstrate the ability to express their experiences.

After the interview process, the researcher gathered information about the participant's friends who met the research sample criteria, and so forth. The research was conducted at the participant's home at a mutually agreed-upon time between the participant and researcher. To achieve maximum variation, 22 patients were finally recruited, and data collection continued until data saturation was reached. The interview process was carried out from one participant to another until no new theme were obtained, indicating saturated data. There were no participants who refused the interview because the next potential participant already knew about this research from the previous participant.

Data analysis

We used thematic analysis following the Braun and Clarke (14). The themes analyzed are themes based on the psychology of the participants experienced based on the experiences they have had. According to the stages of this method, namely: the recording results are written in verbatim form. Thematic analysis involves a number of choices that are often not explicitly stated, but need to be considered and discussed. Questions to participants should be considered before data analysis begins, and there needs to be ongoing dialogue reflection by the researcher on issues that arise at that time during the analysis process. The theme identification stage includes six stages, namely: familiarization with data, initial coding, determining themes, reviewing and defining themes, naming and defining themes, producing and interpreting narrative, archiving and reporting. During the analysis process, each stage is carried out continuously.

The first stage of analysis was carried out verbatim and the recording results were studied several times. The aim of this step is to understand the language spoken by the respondent. Language patterns will be obtained using this method. The next stage is to record related initial ideas, do coding, and provide notes if necessary. This research obtained 187 codes. The researcher marked the verbatim part consisting of: quotations, illustrative data as identification of the resulting pattern.

Quotations were recorded in the MS Excel program for neater data grouping. Additionally, naming, grouping, and data collection are more accurate. The sequences of themes are obtained according to the table that has been created in the program. Each quote, theme and subtheme is checked, evaluated whether it is appropriate or not. This step ends when an agreement is reached on the grouping of themes and subthemes.

Triangulated data was obtained from two researchers independently. In the next stage, we invited one researcher to check the results of the verbal analysis that had been produced to discuss the themes, subthemes and quotes that had been created. Research credibility was carried out using the member checking method, where in the interview results (transcription of interview) were returned to the participants after coding. The researcher ensured that the respondents understood and agreed with the interview outcomes. Corrections were made based on feedback from respondent.

A professional research team, experienced in both hemodialysis and qualitative methodologies, supervised the coding and data analysis process. Maximum variation was also observed in the sampling of hemodialysis patient participants. Conformity is carried out through thorough documentation of all research stages, including data collection, analysis, themes, subthemes that can be measured by others.

Ethical aspects

This research has received ethical approval number 49/EA/KEPK/2024 published by Faculty of Public Health, Universitas Airlangga. The research process was carried out by observing and adhering to the principles of the Declaration of Helsinki with autonomy, confidentiality, and anonymity prioritized for participants. All participants received both verbal and written explanations of the research and provided consent voluntarily, without coercion. Participants were informed that the interview process and results would be kept confidential and anonymous. The interview text was coded to maintain confidentiality. Anonymity was preserved for quotes in the results.

RESULTS

The demographic characteristics of participants in this study are presented in Table 1.

Table 1. A summary of the participants' demographic characteristics.

Number	Gender	Age (Years)	Education Level	Years in HD	Frequency of hemodialysis in a week	Type of Universal Health Coverage	Occupation
1	Male	38	Bachelor	2008	Twice	Contribute by paying	Unemployed
2	Female	34	Junior High School	2012	Twice	Assistance Recipients	Unemployed
3	Male	26	Senior High School	2010	Twice	Contribute by paying	Unemployed
4	Female	33	Bachelor	2013	Twice	Contribute by paying	Unemployed

Number	Gender	Age (Years)	Education Level	Years in HD	Frequency of hemodialysis in a week	Type of Universal Health Coverage	Occupation
5	Female	45	Senior High School	2013	Twice	Contribute by paying Contribution	Unemployed
6	Male	57	Senior High School	2010	Twice	Assistance Recipients	Unemployed
7	Male	56	Bachelor	2010	Twice	Contribute by paying	Unemployed
8	Male	49	Senior High School	2009	Twice	Contribute by paying Contribution	Unemployed
9	Female	40	Senior High School	2011	Twice	Assistance Recipients	Entrepreneur
10	Male	44	Bachelor	2010	Once	Contribute by paying	Employed
11	Male	50	Senior High School	2006	Twice	Contribute by paying	Farmer
12	Male	39	Bachelor	2010	Twice	Contribute by paying	Unemployed
13	Male	42	Senior High School	2010	Twice	Contribute by paying	Unemployed
14	Male	43	Senior High School	2009	Twice	Contribute by paying	Unemployed
15	Female	36	Senior High School	2009	Twice	Contribute by paying	Employed
16	Male	48	Senior High School	2013	Twice	Contribute by paying Contribution	Unemployed
17	Male	60	Bachelor	2010	Twice	Assistance Recipients	Unemployed
18	Male	40	Bachelor	2010	Twice	Contribution Assistance Recipients	Unemployed
19	Female	52	Junior High School	2010	Twice	Contribute by paying	Unemployed
20	Male	43	Junior High School	2008	Twice	Contribute by paying	Farmer
21	Female	49	Junior High School	2009	Twice	Contribute by paying Contribution	Unemployed
22	Female	51	Bachelor	2011	Twice	Assistance Recipients	Unemployed

The results show three themes, namely health coverage system, hemodialysis service, and hemodialysis facilities, along with ten subthemes (Table 2).

Table 2. Identified themes and subthemes.

Themes	Subthemes
Health coverage system	Complex monthly payment status for assistance recipients Unexpected deactivation of payment status Outdated referral system requirements Complications in the payment system for assistance recipients Pinalty for late payment
Hemodialysis service	Disparities in services across hospitals Insufficient coverage for certain services
Hemodialysis facilities	Accessibility issues with distant hemodialysis units Variations in hemodialysis equipment types Inadequate family waiting room comfort

Theme 1: Health coverage system

In this study, health coverage system is described as system that provide health service for CKD with regular hemodialysis. The theme of health coverage system was expressed by eighteen participants. Subthemes that include in heathth coverage system are: complex monthly payment status for assistance recipients, unexpecteted Deactivation of payment status for assistance recipients, outdated referral system requirements, complications in the payment system for assistance recipients, and pinalty for late payment.

Complex monthly payment status for assistance recipients

Hemodialysis services in hospitals commence following administrative procedures. Patients register to get a queue number and verify their health insurance status. The confirmation of health insurance status is a prerequisite for hemodialysis treatment at the hospital. One participant stated: *“I am a participant of contribution assistance recipient. Every month, I have to deal with complicated administration. I am confused. Payments in the hospital system are frequently denied”* (p2).

Unexpected Deactivation of payment status for assistance recipients

Chronic kidney disease patients undergoing hemodialysis and receiving contribution assistance face financial challenges. The government provides assistance to cover monthly contribution costs. However, an issue arises when the automatic payment status abruptly ceases, rendering the insurance inactive. One participant stated: *“I was at the hospital and was informed by the administration that my health coverage system was inactive. I am a recipient of contribution assistance. There was no prior notification about this. Consequently, my hemodialysis was delayed”* (p4).

Outdated referral system requirements

Hospital hemodialysis units in Indonesia are located across various districts or provinces. Before receiving hemodialysis therapy, patients must fulfill referral requirements from Puskesmas (Community Health Centers). Hemodialysis patients are required to periodically update their referral letters. One participant stated: *“Every month, I have to arrange a referral to the Community Health Center, then to a larger*

hospital with a hemodialysis unit. When I arrive at the hospital, I often discover that the validity period of my referral letter has expired. Instead of going back and forth to get a new referral letter, I eventually paid for it myself to get hemodialysis because my house is far away” (p12).

Complications in the payment system for assistance recipients

Hemodialysis therapy for chronic kidney disease patients must be carried out regularly every week. Consequently, the majority of patients are unable to work and lack a source of income. Patients rely on financial assistance from partners, children or relatives. One participant stated: *“I want to change the payment system from contributing by paying to being a Contribution Assistance Recipients, it's very difficult. Even though I don't work and have no income every month. My sister covers all my needs, she pays for my food” (p9).*

Pinalty for late payment

In accordance with applicable regulations, fines under the National Health Insurance (JKN) Program are calculated at 5% of the cost of inpatient health services or the cost of the disease package, which is then multiplied by the number of months in arrears. Hemodialysis patients who contribute by paying experience this. One participant stated: *“In the first year, I only paid for one month. However, at the end of the year. I have to pay a fine of two hundred and fifty rupiah in addition to the twelve months' contribution fee”(p22).*

Theme 2: Hemodialysis service

In the current study, hemodialysis services described as kind of services that provides for chronic kidney disease with regular hemodialysis. The theme of Hemodialysis service was raised by fourteen participants. In the current study, hemodialysis services supported by subthemes disparities in services across hospitals, insufficient coverage for certain services.

Disparities in services across hospitals

Apart from hemodialysis therapy, hemodialysis patients also require additional therapy, namely medication according to their blood laboratory results. Prescribed medications by doctors aim to compensate for suboptimal kidney function. Payment systems for these additional therapies aside from hemodialysis, differ among hospitals. One participant stated: *“I once traveled on hemodialysis. I received a blood transfusion when my Hb level was seven. I received Hemapo when my level dropped to six. All of this was provided at no cost. However, at the hospital in my hometown, you have to pay for it yourself” (p10).*

Insufficient coverage for certain services

The majority of hemodialysis patients are not employed. Additional medications required outside of hemodialysis therapy are mostly paid for out-of-pocket. Patients have expressed dissatisfaction with these additional costs. One participant stated: *“Previously I received Epoand Hemapo, but now I don't have Hemapo anymore.*

Only receive Neurobion injection, that's what they give me. And it's only once a week. In the past, I used to receive Neurobion at the beginning of every hemodialysis session, regardless of whether the Hb level was high or low., But now, it seems they're sorting it out differently. They're sorting it out again like that" (p8).

Theme 3: Hemodialysis facilities

In the current study, hemodialysis facilities described as all facilities that given and provide for chronic kidney disease patient with regular hemodialysis and their families. The theme of Hemodialysis facilities was expressed by eleven participants. In the current study, hemodialysis services supported by themes accessibility issues with distant hemodialysis unit, variations in hemodialysis equipment types and Inadequate family waiting room comfort.

Accessibility issues with distant hemodialysis units

Not all hospitals possess adequate hemodialysis facilities, necessitating patients to search for and wait in line to access such equipment. Patients must wait for the availability of equipment to receive their regular hemodialysis sessions. As one participant stated: *"I have been undergoing dialysis since I was 12 years old. I had to visit the provincial capital hospital because the hospital in my city lacks hemodialysis equipment for children"(p3).*

Variations in hemodialysis equipment types

The use of hemodialysis equipment is adjusted to each hospital's policy. Each hospital has the authority to determine the selected equipment in accordance with its agreement with the medical equipment company. One participant stated: *"I had to change hospitals for hemodialysis due to relocating. The hemodialysis equipment used was different, even though the hospital were of the same type. I felt more comfortable the first time" (p16).*

Inadequate family waiting room comfort

The hemodialysis session typically lasts for 4-5 hours, occurring once or twice a week. The majority of hemodialysis patients are accompanied by their families, who wait in the waiting room provided by the hospital during the procedure. One participant stated: *"My family, who accompanied me, found the waiting room to be hot and the chairs uncomfortable, despite waiting for at least 5 hours" (p13).*

DISCUSSION

The experience of hemodialysis patients regarding changes in hemodialysis costs shows three categories, namely health coverage system, hemodialysis service, and hemodialysis facilities. The health coverage system includes subthemes such as complex monthly payment status of contribution assistance recipients, unexpected deactivation of payment status of contribution assistance recipients, outdated referral system requirements, complications in the payment system from contributions by paying to recipients of contribution assistance, and penalty for late payment.

The procedure for obtaining hemodialysis financing from *JKN* in Indonesia includes: the patient being a *JKN* participant, receiving a diagnosis of CKD, obtaining a doctor's referral for hemodialysis, selecting a health facility, completing the administrative process, and undergoing hemodialysis therapy (2).

Certain vulnerable groups, specifically those facing financial problems, encounter barriers in accessing health services compared to rich groups (15). According to the results of this study, one of the most prevalent reasons for unmet health service needs is the affordability of healthcare costs (16). Various factors influencing the *JKN* program in Indonesia include inadequate access to health services, poor quality of health services, complicated administrative procedures, and inaccurate participant data (17).

The existing health insurance system has several problems that require immediate attention. The complexity of the payment status for recipients of monthly contribution assistance indicates administrative difficulties that can affect ease of access to health services. This leads to uncertainty for beneficiaries and exacerbates the patient's financial condition. Unexpected deactivation of payment status for contribution assistance recipients creates undesirable instability in the system. This may result in the inability of individuals to access the hemodialysis services they need, thereby increasing the risk of disease severity.

Referral system requirements that require updating indicate the necessity to increase efficiency and facilitate access to health services. Failure to update the referral system promptly can hinder patients from receiving the necessary care. The referral system policy needs thorough review during updates, particularly because hemodialysis therapy is a lifelong treatment.

Changing the payment system from contributions to payments for recipients of contribution assistance is complicated, indicating the need for clarity and improved communication with participants. This is important to avoid unnecessary confusion and difficulties for those who rely on these systems. Penalty for late payment can pose significant barrier for individuals with low or limited incomes. Such penalties may lead to the accumulation of financially burdensome debt and impede their access to necessary health services.

The health insurance system needs immediate improvement to ensure equitable and affordable access for all individuals. Comprehensive reform is required to address these challenges and improve efficiency and fairness in the provision of hemodialysis services. The hemodialysis service includes subthemes such as variations in the types of services offered between hospitals and inadequate coverage service types. The research results show that intervention strategies focusing on providing hemodialysis services have a great influence on patient satisfaction. Hemodialysis services must be provided equitably, efficiently, safely and impartially for all patients(18). Various service dimensions influencing hemodialysis patient satisfaction include facilities and service organization, nursing care, psychological services, administration, attention, medical services, nutrition, and medication(19).

The results of this study indicate disparities and inequality in access and quality of hemodialysis services in various hospitals. Variations in the types of services received between hospitals indicate variations in the standard of care available to patients. This

can result in uncertainty for patients in choosing the most suitable and optimal treatment facility based on their medical needs. The inadequate coverage of service types provided indicating that there is a gap in meeting the requirements of patients. Lack of service coverage for critical aspects of hemodialysis treatment may lead to a higher risk of complications or suboptimal treatment for patients.

Steps to improve the consistency and quality of hemodialysis services in all hospitals, and to ensure that the range of services provided meets the required medical standards, may require collaborative efforts between governments, health agencies, and other stakeholders. This collaboration may involve establishing clear guidelines and standards, expanding access to adequate services, and increasing transparency in the provision of hemodialysis services. Thus, patients can expect to receive care that is consistent, high-quality, and appropriate to their medical needs throughout the region.

Hospital management must consider the various problems experienced by hemodialysis patients. These reported problems serve as a reference for improving hemodialysis and *JKN* services in Indonesia. *JKN* in Indonesia needs to carry out a continuous improvement process to provide convenience for hemodialysis patients and increase patient satisfaction, ultimately enhancing hemodialysis compliance.

Hemodialysis facilities includes subthemes such as hemodialysis units in a distant hospital, different types of hemodialysis equipment, and discomfort of family waiting room. The results of these subthemes are in accordance with research, indicating that causes of unmet needs for chronic disease services include waiting time, affordability, and distance to health facilities(16). The interaction between nurses and patients, as well as the nurses' ability to operate hemodialysis equipment and the type of equipment used, influence patient adaptation(20). Good hemodialysis facilities influence compliance and Interdialytic Weight Gain patient (21).

Some patients must travel long distances to access hemodialysis facilities, presenting additional difficulties for those already facing significant medical challenges. This can lead to increased inconvenience, additional costs, and fatigue for patients and their families who must regularly travel long distances.

Differences in types of hemodialysis equipment between facilities can create uncertainty and imperfections in treatment. Patients who must move between facilities may struggle to adjust to different devices, which can impact treatment effectiveness and comfort during the hemodialysis process. Additionally, the inconvenience of the family waiting area is an important aspect of the patient experience. As a place frequently used by families during the hemodialysis process, comfort and adequate facilities can affect their psychological and emotional well-being, as well as the relationship between patients and families.

Improvements in access, consistency, and quality of hemodialysis facilities are necessary to improve the experience of patients and their families. Efforts to reduce disparities in access, provide consistent training and support related to the use of hemodialysis equipment, and improve comfort and facilities for families can contribute to creating a more supportive and quality environment for all individuals requiring hemodialysis services.

Hemodialysis nurses are expected to be able to explain various changes in universal health coverage policies in detail to hemodialysis patients and families so as not to disrupt the service process. The results of this study can be used as a reference for countries that implement Universal Health Coverage in the health service financing system, especially hemodialysis.

Future research that is recommended is to review the quality of the hemodialysis patient financing system is a study on the satisfaction and barriers of Universal Health Coverage. This is in accordance with the current conditions of the majority of hemodialysis patients using Universal Health Coverage. This further research is based on the perspectives of patients, health workers, policy makers and families.

Methodological notes

Researchers strive to apply the principle of rigor and minimize bias. This study applies the principle of rigor in research, namely credibility which accurately describes the reality or perspective of participants, transferability (research findings are relevant in the context of health service costs), dependability (the research process can be repeated under the same conditions and can produce similar findings), confirmability (research neutrality), and authenticity (emphasizing the complete and honest perspective of participants).

We apply various strategies to maximize credibility and achieve triangulation. The limitation of this research is that the National Health Insurance Program in Indonesia continues to develop and make improvements. The results of this qualitative research are the result of data collection at that time without paying attention to the latest developments.

CONCLUSIONS

Three themes were identified using the thematic analysis namely health coverage system, hemodialysis service, and hemodialysis facilities, along with ten subthemes were complex monthly payment status for assistance recipients, unexpected deactivation of the payment status, outdated referral system requirements, complications in the payment system for assistance recipients, pinalty for late payments, disparities in services across hospitals, insufficient coverage for certain services, accessibility issues with distant hemodialysis units, variations in hemodialysis equipment types, and inadequate family waiting room comfort.

The role of health workers is to provide detailed and comprehensive explanations to hemodialysis patients and their families about the latest Universal Health Coverage so that it is easily accessible. The health insurance system is very necessary to improve access, equity, affordability, efficiency, consistency, and quality of hemodialysis services across hospitals. Collaborative efforts involving the government, health institutions, and stakeholders are essential to address these challenges.

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CONFLICT OF INTEREST

The authors declared no conflicts of interest.

REFERENCES

1. Christopher Dye, Ties Boerma, David Evans, Anthony Harries, Christian Lienhardt, Joanne McManus, Tikki Pang, Robert Terry RZ. Research for universal health coverage [Internet]. Vol. 5, World Health Organization. Luxembourg; 2013. Available from: <https://www.afro.who.int/publications/world-health-report-2013-research-universal-health-coverage>
2. Kementerian Kesehatan RI. Indonesia Health Financing System Assessment [Internet]. Jakarta; 2014. Available from: https://siha.kemkes.go.id/portal/files_upload/1_e_HFSA_FINAL_Published.pdf
3. Kementerian Kesehatan RI. Laporan Kajian Efektifitas Sistem Pembayaran Kapitasi Khusus di Daerah Terpencil dan Kepulauan Tahun 2018 [Internet]. UGM. Yogyakarta; 2004. Available from: https://kebijakankesehatanindonesia.net/images/2018/Laporan_Kapitasi_Khusus.pdf
4. Kementerian Kesehatan RI. Buku Panduan Jaminan Kesehatan Nasional (JKN) Bagi Populasi Kunci [Internet]. Jaminan Kesehatan Nasional. Jakarta: Kementerian Kesehatan RI; 2016. 1–39 p. Available from: https://siha.kemkes.go.id/portal/files_upload/BUKU_PANDUAN_JKN_BAGI_POPULASI_KUNCI_2016.pdf
5. Jager KJ, Kovesdy C, Langham R, Rosenberg M, Jha V, Zoccali C. A single number for advocacy and communication—worldwide more than 850 million individuals have kidney diseases. *Kidney Int* [Internet]. 2019;96(5):1048–50. Available from: <https://doi.org/10.1016/j.kint.2019.07.012>
6. PERNEFRI. 11th Report Of Indonesian Renal Registry 2018. *Indones Ren Regist* [Internet]. 2018;1–46. Available from: https://www.indonesianrenalregistry.org/data/IRR_2018.pdf
7. Agustina F, Yetti K, Sukmarini L. Contributing factors to hemodialysis adherence in Aceh, Indonesia. *Enferm Clin* [Internet]. 2019;29(S2):238–42. Available from: <https://www.elsevier.es/en-revista-enfermeria-clinica-35-articulo-contributing-factors-hemodialysis-adherence-in-S113086211930124X>
8. Alhamad MA, Almulhim MY, Alburayh AA, Alsaad RA, Alhajji AM, Alnajjar JS, et al. Factors Affecting Adherence to Hemodialysis Therapy Among Patients With End-Stage Renal Disease Attending In-Center Hemodialysis in Al-Ahsa Region, Saudi Arabia. *Cureus* [Internet]. 2023;15(10):1–11. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10630638/>
9. Kim S, Lee HZ. The Lived Self-Care Experiences of Patients Undergoing Long-Term Haemodialysis: A Phenomenological Study. *Int J Environ Res Public Health* [Internet]. 2023;20(6):1–10. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10048782/>
10. Sunariyanti E, Andayani TM, Endarti D, Puspandari DA. Cost Analysis of Chronic

- Kidney Disease Patients in Indonesia. *Clin Outcomes Res* [Internet]. 2023;15(June):621–9. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10393018/pdf/ceor-15-621.pdf>
11. Bello AK, Okpechi IG, Osman MA, Cho Y, Htay H, Jha V, et al. Epidemiology of haemodialysis outcomes. *Nat Rev Nephrol*. 2022;18(6):378–95.
 12. Yao X, Chen S, Lei W, Shi N, Lin W, Du X, et al. The relationship between hemodialysis mortality and the Chinese medical insurance type. *Ren Fail* [Internet]. 2019;41(1):778–85. Available from: <https://doi.org/10.1080/0886022X.2019.1657893>
 13. Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): A 32-item checklist for interviews and focus groups. *Int J Qual Heal Care* [Internet]. 2007;19(6):349–57. Available from: <https://pubmed.ncbi.nlm.nih.gov/17872937/>
 14. Braun V, Clarke V. Using thematic analysis in psychology. *Qual Res Psychol*. 2006;3(2):77–101.
 15. Detollenaere J, Hanssens L, Vyncke V, De Maeseneer J, Willems S. Do we reap what we sow? Exploring the Association between the Strength of European primary healthcare systems and inequity in unmet need. *PLoS One* [Internet]. 2017;12(1):1–13. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5207486/>
 16. Başar D, Dikmen FH, Öztürk S. The prevalence and determinants of unmet health care needs in Turkey. *Health Policy (New York)* [Internet]. 2021;125(6):786–92. Available from: <https://www.sciencedirect.com/science/article/pii/S0168851021001044>
 17. Muhlis ANA. Determinants of the National Health Insurance Uptake in Indonesia. *Indones J Heal Adm* [Internet]. 2022;10(1):111–21. Available from: <https://e-journal.unair.ac.id/JAKI/article/view/27746/21820>
 18. Glidewell L, Boocock S, Pine K, Campbell R, Hackett J, Gill S, et al. Using behavioural theories to optimise shared haemodialysis care: A qualitative intervention development study of patient and professional experience. *Implement Sci* [Internet]. 2013;8(1):1–17. Available from: *Implementation Science*
 19. Hartanti LK, Antonio F. The Effect of Service Quality Dimensions on Hemodialysis Patient Satisfaction in Indonesia. *J Adm Kesehat Indones* [Internet]. 2022;10(1):50–9. Available from: <https://e-journal.unair.ac.id/JAKI/article/view/28554>
 20. Widyawati IY, Nursalam N, Kusnanto K, Hargono R, Hsieh PL. Grieving as an Internal Factor of Nurse-Patient Interaction in a Dialysis Unit. *J Ners* [Internet]. 2018;13(1):64–71. Available from: <https://e-journal.unair.ac.id/JNERS/article/view/8005/pdf>
 21. Wahyuni ED, Haloho FNW, Asmoro CP, Laili NR. Factors Affecting Interdialytic Weight Gain (IDWG) in Hemodialysis Patients with Precede-Proceed Theory Approach. *IOP Conf Ser Earth Environ Sci*. 2019;246(1):1–7.

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