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Living with the Machine: The Lived Experience of Young Adults on Hemodialysis

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Abstract

This study explored the lived experiences of young adults undergoing hemodialysis in Zamboanga del Norte, Philippines. Anchored on Husserlian Descriptive Phenomenology, the study employed a qualitative phenomenological research design to understand the essence of "living with the machine" from the perspectives of young adults with chronic kidney disease or end-stage renal disease. Eight young adults aged 19 to 25 who had undergone maintenance hemodialysis for at least one year participated in the study. Data were gathered through a researcher-made semi-structured interview guide, validated by qualitative research specialists and healthcare professionals, and analyzed using Colaizzi's phenomenological method. The findings revealed that hemodialysis was experienced not only as a medical treatment but as a whole-person condition affecting the body, emotions, relationships, spirituality, identity, and daily life. Participants reported fatigue, pain, bodily weakness, disrupted school and work roles, fear, confusion, anxiety, and dependence on treatment routines. Despite these challenges, they developed coping strategies through self-care, discipline, family and peer support, healthcare guidance, faith, prayer, hope, gratitude, and resilience. The study concluded that young adults undergoing hemodialysis experience suffering, adjustment, resilience, and hope while needing responsive, accessible, holistic, and patient-centered care. Recommendations included flexible dialysis schedules, comfortable treatment spaces, peer support, mental health check-ins, family education, financial subsidies, public awareness campaigns, and future intervention-based studies. The study supports SDG 3, Good Health and Well-Being, and SDG 10, Reduced Inequalities, by emphasizing equitable access to holistic renal care and psychosocial support. Its sustainability impact lies in strengthening patient-centered healthcare services, family and community support systems, and policy responses for young adults managing long-term hemodialysis in resource-limited settings.

Keywords: Chronic Kidney Disease, Coping Strategies, Hemodialysis, Lived Experiences, Patient-Centered Care, Resilience, Spirituality, Young Adults, Zamboanga del Norte

1. Introduction

Kidney disorders, particularly chronic kidney disease (CKD) and end-stage renal disease (ESRD), remain major global public health concerns because of their physical, emotional, social, and economic consequences. ESRD represents the irreversible stage of CKD, requiring renal replacement therapies such as hemodialysis to sustain life. Hemodialysis mechanically removes toxins, excess fluids, and waste products from the blood when kidney function is critically impaired (Mayo Clinic, 2023). According to Zhang et al. (2025), nearly 89% of ESRD patients depend on hemodialysis, emphasizing its essential role in managing kidney failure. However, beyond its lifesaving function, hemodialysis significantly affects patients' daily routines, relationships, mental well-being, and sense of independence, especially among young adults who are still navigating personal, social, educational, and professional development.

1.1 Chronic Kidney Disease, ESRD, and Hemodialysis Among Young Adults

Traditionally, CKD and ESRD have been associated with older adults, yet recent evidence shows that a substantial number of dialysis patients are young or middle-aged adults. Between 40% and 60% of dialysis patients are reportedly young or middle-aged adults, including individuals between 18 and 45 years old. For young adults, living "with the machine" reflects the reality of long-term dependence on dialysis equipment, strict treatment schedules, and lifestyle restrictions. This dependence shapes their daily activities, social participation, emotional stability, and future planning (Cluley et al., 2023). The experience becomes more complex because young adults are often expected to pursue education, employment, relationships, and family responsibilities while managing a demanding chronic illness. International and local studies show that younger adults undergoing hemodialysis experience more than physical symptoms. They also face psychological distress, emotional strain, financial difficulty, and social disruption, all of which complicate disease management (Osuna et al., 2023). Derasin and Derasin (2024) emphasized the importance of familial and social support in strengthening resilience, particularly because many younger adults also carry emotional and practical caregiving responsibilities for

family members. These realities show that hemodialysis must be understood not only as a medical intervention but also as a lived experience that affects the whole person.

1.2 Physical, Emotional, Social, and Quality-of-Life Experiences in Hemodialysis

The literature consistently shows that hemodialysis affects patients across physical, psychological, emotional, social, and existential dimensions. Globally, Johnson et al. (2023) reported that more than 850 million people worldwide are affected by CKD, while Cruz and Mendoza (2022) identified approximately 30,000 new ESRD patients annually in the Philippines requiring dialysis or transplantation. These cases are worsened by delayed diagnosis, limited dialysis centers, inadequate healthcare infrastructure, and high treatment costs. Physical challenges remain central to the hemodialysis experience. Ogwang et al. (2023) noted that patients encounter both physical and emotional difficulties during treatment, while Al-Naamani et al. (2024) emphasized that fatigue remains insufficiently acknowledged. Fatigue limits daily functioning and quality of life (Bossola et al., 2023), contributes to depression and anxiety (Jhamb et al., 2021), increases social withdrawal (Khorami Markani et al., 2023), and reduces work capacity, creating economic strain (Murtagh et al., 2020). In the Philippine context, fatigue affects patients' roles at work, school, and home (De Guzman et al., 2023), while financial hardship further intensifies psychological and social difficulties (Santos & Reyes, 2022). The social and emotional burdens of hemodialysis are also significant among young adults. Hamilton et al. (2019) found that young adults undergoing renal replacement therapy experience lower quality of life, psychological distress, and limitations in employment, independence, relationships, and education. Ofori-Ansah et al. (2024) explained that unmet informational and decisional needs affect their psychosocial and mental well-being. Rafiee-Vardanjani et al. (2025) also highlighted experiences involving life reassessment, spirituality, fear of the unknown, fragile social relationships, external support, and changes in care routines. Emotional health and self-care are essential in managing long-term hemodialysis. Kim and Lee (2023) described self-care as involving persistence, nutrition management, physical activity within limits, and independence in care. Smith et al. (2020) found that nearly 40% of young adults on hemodialysis experience moderate to severe depressive symptoms, while Johnson and Lee (2021) reported anxiety and social isolation as common concerns. Patel et al. (2022) emphasized counseling and peer support as helpful interventions for improving coping and emotional well-being. Quality of life and adaptation are strongly affected by treatment demands. Al Salmi et al. (2021) found that dialysis patients' physical and emotional quality-of-life scores are approximately 50% lower than those of the general population. Ferraris et al. (2025) linked illness burden to lack of partnership, employment, and independent living, while Yonata et al. (2022) identified comorbidities as significant influences on quality of life. Clavé et al. (2019) emphasized the need to include coping strategies and quality of life in chronic illness care management. Ghaffari et al. (2019) explained that patients use different coping strategies to manage stress, although not all are effective. Cooper (2017) found that home dialysis may improve flexibility and autonomy, while Ramírez-García et al. (2025) emphasized tailored, patient-centered care that integrates psychological, physical, social, and policy-related support.

1.3 Hemodialysis Care in the Global, Philippine, and Zamboanga del Norte Contexts

Globally, CKD and ESRD continue to create significant health burdens, particularly in low- and middle-income countries where early detection and access to renal replacement therapies remain limited (Johnson et al., 2023). Nationally, the Philippines faces increasing CKD cases and a growing number of ESRD patients requiring dialysis or transplantation (Cruz and Mendoza, 2022). These challenges are intensified by limited dialysis facilities, high treatment expenses, and uneven healthcare access, especially outside urban centers. Locally, the Zamboanga Peninsula reflects these broader concerns. Santos et al. (2024) found that more than 60% of CKD patients in the region begin dialysis at advanced stages of kidney failure because of delayed diagnosis and limited awareness. Patients also experience physical symptoms, psychological distress, and financial hardship, worsened by limited local healthcare resources. In Zamboanga del Norte, these issues are further shaped by geographic isolation, limited healthcare infrastructure, and barriers to quality renal care. These conditions create additional burdens for young adults undergoing long-term hemodialysis and highlight the need for localized research that reflects their specific realities.

1.4 Husserlian Descriptive Phenomenology as the Basis for Exploring Lived Experiences

This study is grounded in Husserlian descriptive Phenomenology, which provides the philosophical and methodological basis for exploring the lived experiences of young adults undergoing hemodialysis. Developed by Edmund Husserl, descriptive phenomenology focuses on describing phenomena as they are consciously experienced by individuals while bracketing preconceived assumptions, theories, and biases (Husserl, 1913/1983). This approach seeks to uncover the essence of experience by examining the meanings participants assign to their realities. Husserlian descriptive phenomenology is appropriate for this study because it allows young adults to describe the meaning of "living with the machine" from their own perspectives. This approach gives importance to their personal narratives and reveals how they interpret the physical, emotional, and social challenges of CKD and hemodialysis during a stage of identity formation and social role negotiation (Moustakas, 1994; Groenewald, 2004). Through bracketing, the study aims to ensure that the findings reflect participants' authentic experiences rather than researcher assumptions (Husserl, 1913/1983). This framework supports the study's goal of understanding the essence of living with hemodialysis and generating insights that can inform patient-centered care.

1.5 Research Gap on the Lived Experiences of Young Adults Undergoing Hemodialysis in Zamboanga del Norte

Although hemodialysis has been widely studied, much of the existing literature focuses on clinical outcomes and general psychosocial effects. Less attention has been given to the holistic lived experiences of young adults undergoing hemodialysis, particularly in specific regional contexts. Existing studies have often overlooked how young adults perceive, cope with, and adapt to hemodialysis within local healthcare constraints (Santos et al., 2024). This gap is important because young adults experience kidney disease during a critical developmental period involving education, work, relationships, independence, and identity formation. In Zamboanga del Norte, the lack of localized research is especially significant because healthcare access, geographic conditions, financial limitations, and sociocultural factors may shape patients' experiences differently from those in urban or better-resourced settings. This study therefore aimed to explore the lived experiences of young adults undergoing hemodialysis to develop insights that may inform comprehensive, adaptable, and patient-centered care approaches. Specifically, it sought to answer the central question: What are the lived experiences of young adults undergoing hemodialysis?

1.6 Alignment of Young Adult Hemodialysis Care with Relevant Sustainable Development Goals

This study aligns most directly with SDG 3, Good Health and Well-Being, because it focuses on young adults living with CKD and ESRD who require long-term hemodialysis. By exploring their physical, emotional, psychological, and social experiences, the study contributes to understanding how chronic illness care can become more holistic and patient-centered. The study also supports SDG 10, Reduced Inequalities, because it addresses the experiences of young adults in Zamboanga del Norte, where limited healthcare resources, geographic barriers, and financial constraints may affect access to quality renal care and psychosocial support. The study is also connected to national health research priorities. It supports the Philippine National Unified Health Research Agenda (NUHRA) priorities on health systems and services by contributing evidence that may help improve patient-centered care models and community-based interventions for chronic disease management (DOH, 2017). Through its focus on young adults in a resource-limited setting, the study emphasizes the need for equitable, responsive, and context-sensitive health services.

1.7 Multidisciplinary Sustainability Relevance of Patient-Centered Hemodialysis Support

The study contributes to public health sustainability by generating localized knowledge about the long-term experiences of young adults undergoing hemodialysis. Understanding their physical symptoms, emotional struggles, social limitations, coping strategies, and support needs can help healthcare providers develop care practices that address both medical and psychosocial dimensions of treatment. This supports more sustainable chronic disease management by encouraging care that is not limited to survival but also considers quality of life, treatment adherence, and emotional well-being. The study also contributes to socio-economic and community sustainability. Young adults undergoing hemodialysis often experience disruptions in education, employment, independence, relationships, and family roles. By documenting these experiences, the study may guide families, caregivers, healthcare institutions, and policymakers in creating support systems that reduce isolation, improve communication, strengthen family relationships, and promote access to appropriate care. For healthcare institutions, the findings may support dialysis programs and services that include therapy, social support, and academic or employment assistance. For policymakers, the study may provide evidence for improved healthcare access strategies, sustained dialysis subsidies, and programs that address both physical and mental health needs. For future researchers, it offers a localized reference for developing further studies on patient-centered renal care among young adults in similar resource-limited settings.

2. Material and methods

2.1 Research Design

This study employed a qualitative phenomenological approach to explore the lived experiences of young adults undergoing hemodialysis. Phenomenology aimed to understand how individuals perceived and made meaning of their experiences by focusing on their personal perspectives rather than external interpretations (Creswell, 2013; Polit & Beck, 2017). According to Creswell (2013), this approach sought to describe the essence of a shared phenomenon as experienced by multiple individuals, while Polit and Beck (2017) emphasized that phenomenology required setting aside researcher biases to deeply engage with participants' firsthand narratives. Specifically, the study was anchored on Husserlian Descriptive Phenomenology, which focused on understanding and describing the essence of a phenomenon by examining individuals' lived experiences while consciously setting aside or "bracketing" preconceived notions and biases (Husserl, 1913/1983; Delve, 2023). This design allowed the researcher to gather comprehensive first-person narratives through in-depth interviews and analyze them thematically to identify shared meanings and distinct nuances of living with a life-sustaining treatment.

2.2 Locale of the Study

The study was conducted in healthcare facilities across the Zamboanga Peninsula, including private and government hospitals and clinics in the Philippines that offered hemodialysis services. This locale was selected because it provided

access to young adults undergoing hemodialysis and allowed the researcher to gather diverse experiences and perspectives. A 2022 study indicated that the prevalence of chronic kidney disease (CKD) in the Philippines had reached 35.94%, exceeding the global norm of 9.1-13.4% (Capitol Medical Center, 2025). Dar (2025) also reported that the Philippine Renal Disease Registry recorded 49,711 hemodialysis patients and 319 peritoneal dialysis patients between September 2022 and July 2023. These figures supported the relevance of studying the experiences of young adults undergoing hemodialysis in the Zamboanga Peninsula and related regional contexts.

2.3 Respondents of the Study

The participants of the study were eight young adults aged 19 to 25 from Zamboanga del Norte, Philippines, who were undergoing hemodialysis. The study focused on young adults because this life stage involves important developmental milestones, including financial independence, romantic relationships, and adult responsibilities, consistent with Bonnie's (2015) definition of young adulthood. Chronic kidney disease remained a significant health concern in the Philippines, with Pajinma et al. (2023) reporting a prevalence rate of 35.94%, which was higher than global estimates. In the local context, most ESRD patients relied on center-based hemodialysis, which accounted for 94% of cases, while only 4% underwent peritoneal dialysis and 2% had kidney transplants. The participants were required to have a confirmed diagnosis of CKD or ESRD, to have undergone maintenance hemodialysis for at least one year before the study, to reside in Zamboanga del Norte, and to voluntarily participate through signed informed consent. Individuals who did not meet these criteria or who had cognitive impairments that limited their ability to provide informed consent or clearly express their experiences were excluded. To protect confidentiality, pseudonyms were used throughout the study, either chosen by the participants themselves or based on their preferences, such as Grace, JV, John, Nicole, Daisy, Laura, Princess, Rey.

2.4 Sample and Sampling Procedure

The study used purposive sampling to intentionally select participants who met the specific criteria relevant to the objectives of the study (Campbell, 2020). Snowball sampling was also used, allowing initial participants to refer other individuals who met the inclusion criteria. This approach helped the researcher access a hard-to-reach population beyond the immediate geographic area. The selection of eight participants was appropriate for phenomenological research, which prioritizes depth over breadth. Creswell (2013) suggested that phenomenological studies typically involve six to ten participants to allow rich and detailed exploration of lived experiences. The study anticipated that approximately ten participants would be sufficient to reach data saturation, or the point at which no new themes or insights emerge from additional data collection (Guest, Bunce, & Johnson, 2006). This sample size balanced the need for detailed data with practical considerations of time and resources.

2.5 Research Instrument

The primary research instrument was a researcher-made semi-structured interview guide. This tool combined predetermined open-ended questions with flexibility to explore emerging topics during the interviews. The format enabled the researcher to guide the conversation while allowing participants to elaborate on their responses and provide rich accounts of their lived experiences (Kallio et al., 2016). Unlike fully structured interviews, the semi-structured approach allowed in-depth dialogue and gave participants space to express their subjective perspectives. The interview guide was appropriate for exploring the lived experiences of young adults undergoing hemodialysis in Zamboanga del Norte, particularly the physical, emotional, social, and personal dimensions of living with kidney failure and treatment. It also explored the idea of "living with the machine," which reflected the continuing relationship between patients and the dialysis apparatus. The guide aligned with an interpretive phenomenological framework that sought to understand how individuals made meaning of their experiences (Smith, Flowers, & Larkin, 2009). Open-ended questions encouraged participants to share detailed narratives and allowed unexpected themes to emerge, supporting the development of patient-centered care models that reflected the real-world needs, challenges, and resilience of patients (Creswell & Poth, 2018). To establish trustworthiness and credibility, the interview guide underwent validation. It was reviewed by the adviser, including qualitative research specialists and healthcare professionals familiar with hemodialysis, who examined the clarity, relevance, and comprehensiveness of the questions. A pilot test was then conducted with one individual who met the study's inclusion criteria and was also part of the final sample. Feedback from the pilot test was used to refine and finalize the instrument, ensuring that the questions were understandable and capable of generating meaningful qualitative data.

2.6 Data Gathering Procedure

Before data collection, approval was obtained from the research ethics committee, followed by permission from the administrators of participating hospitals and dialysis centers. Hospital staff helped identify potential participants who met the inclusion criteria. Informed consent was secured from all participants, ensuring that they understood the voluntary nature of their participation, the confidentiality of their responses, and their right to withdraw at any time without penalty. Interviews were scheduled according to participants' treatment schedules and recovery periods after hemodialysis to ensure comfort and readiness. They were conducted face-to-face in private and quiet rooms within healthcare facilities or in other mutually agreed safe locations. When necessary, interviews were conducted through secure online platforms for flexibility and accessibility. With participants' consent, all interviews were audio-recorded and lasted approximately 15 to 60 minutes.

Recordings and transcripts were securely stored, and personal identifiers were removed during data processing. After each interview, participant debriefing was conducted to allow clarification, address concerns, and provide emotional support if needed. A revalidation process was also conducted by returning synthesized findings or thematic summaries to participants. This member-checking process allowed participants to confirm the accuracy and completeness of the interpretations, strengthening the credibility and trustworthiness of the data.

2.7 Data Analysis Techniques

Data were analyzed using Colaizzi's phenomenological method, which followed a systematic seven-step process. The researcher read and re-read the transcripts to gain a comprehensive understanding of the participants' lived experiences, extracted significant statements related to the phenomenon, formulated meanings from these statements, organized the meanings into theme clusters, validated the themes by comparing them with the original transcripts, integrated the themes into an exhaustive description of the young adults' experiences undergoing hemodialysis, and validated the findings with the participants. This process ensured a rich and authentic representation of the participants' narratives. Throughout data collection and analysis, the researcher used bracketing to consciously set aside personal biases, preconceptions, and theoretical assumptions. This maintained openness and neutrality and helped preserve the integrity of the participants' stories. The use of participant revalidation and Colaizzi's method supported a rigorous, credible, and reflective exploration of the lived experiences of young adults undergoing hemodialysis.

2.8 Ethical Considerations

The study began only after approval was secured from the University Research Ethics Committee with REC code number 2026-027. Eligible participants were asked to sign an informed consent form that explained the purpose of the study, emphasized voluntary participation, and stated their right to withdraw at any time without negative consequences. Participation, refusal, or withdrawal did not affect their medical care, access to treatment, or relationship with healthcare providers or institutions. Participants were informed that some interview questions might cause emotional or psychological discomfort. They were told that they could pause, skip any question, or end the interview at any time without consequence or effect on their care. Confidentiality was protected by storing all data in password-protected digital files and locked physical storage accessible only to the researcher and authorized research advisers. Hospital staff and administrators had no access to individual responses or raw data. Personal identifiers were removed or anonymized in all documents and publications, and data handling followed Republic Act 10173, the Data Privacy Act of 2012. All data were retained securely for five years after completion of the study, following institutional guidelines and REC requirements. After the retention period, electronic data were permanently deleted using secure data erasure methods, while physical documents were shredded or incinerated to prevent unauthorized access. These measures protected participants' privacy throughout the research process and beyond.

3. Results and Discussion

3.1 Lived Experiences of Young Adults Undergoing Hemodialysis

The participants were eight young adults aged 19 to 25, composed of five females and three males. Most were single, with only one married participant, and their duration of hemodialysis treatment ranged from one to three years. Their experiences reflected the challenges of undergoing long-term dialysis while navigating young adulthood, a developmental stage associated with education, employment, independence, relationships, and adult responsibilities (Bonnie, 2015). Grace, JV, John, Nicole, Daisy, Laura, Princess, and Rey described varied experiences involving fatigue, pain, fear, anxiety, disrupted responsibilities, treatment adjustment, reliance on family support, spirituality, and coping strategies. These demographic and experiential differences enriched the findings by showing how hemodialysis affects young adults in multiple ways. Their narratives revealed that treatment is not merely a medical procedure but a continuing life condition that reshapes the body, emotions, relationships, routines, identity, and future plans. The findings also showed that the length of treatment influenced adaptation, as those with longer exposure to dialysis often described greater familiarity with treatment routines and coping demands.

3.1.1 Embodied Suffering and Disrupted Daily Living

The findings showed that hemodialysis caused persistent physical suffering, bodily weakness, fatigue, pain, and reduced energy among participants. They described feeling exhausted before, during, and after dialysis sessions, with treatment often causing discomfort, weakness, and a need for extended rest. Grace, JV, Nicole, and John reported that dialysis limited their strength, reduced their ability to perform usual activities, and made daily functioning more difficult. These experiences reflected the burdened body, where the physical toll of treatment became a defining part of their lived experience. This finding suggests that hemodialysis creates an embodied form of suffering that affects how young adults experience and use their bodies in everyday life. Embodied suffering refers to the way illness is felt in the body and influences daily function (Merleau-Ponty, 1945/2012), while physical depletion reflects sustained energy loss and bodily weakening (Kleinman, 1988). Although hemodialysis is essential for survival, with approximately 89% of ESRD patients relying on it (Zhang et al., 2025), it also imposes significant physical and lifestyle burdens (Cluley, Burton, & Hull, 2024). These findings support

existing studies showing that hemodialysis patients experience physical and emotional challenges (Ogwang et al., 2023), that fatigue is a debilitating but underacknowledged symptom (Al-Naamani et al., 2024), and that fatigue limits physical activity, quality of life, and independence (Bossola et al., 2023). In the Philippine context, this also confirms that fatigue affects patients' roles in school, work, and family life (De Guzman et al., 2023).

3.1.2 Cyclical Recovery and Bodily Maintenance

The participants also described recovery as a repeated and necessary part of their lives after dialysis. Grace emphasized the need to rest and take medication after treatment to regain strength and prevent complications. Nicole highlighted strict adherence to medication and diet, while Laura described careful planning to protect treatment schedules and allow recovery time. Princess shared that even small forms of productivity helped her avoid feeling depressed, showing that recovery involved both bodily care and emotional stability. This finding indicates that young adults undergoing hemodialysis constantly engage in bodily maintenance to manage the treatment's physical consequences. Their routines of rest, medication adherence, diet management, planning, and limited productivity reflect adaptive strategies for coping with physical depletion. This aligns with Roy's Adaptation Model, particularly the physiological-physical mode, which explains how individuals attempt to maintain bodily stability and self-care amid chronic health stressors (Roy, 1970; Mohammed, Hassan, & El Gawab, 2022). The finding also shows that recovery is not a temporary phase after treatment but a continuous cycle that structures everyday life.

3.1.3 Interrupted Roles and Treatment-Centered Routines

The findings revealed that dialysis disrupted the participants' roles and responsibilities in school, work, and daily life. Grace reported rushing between dialysis, school, and work, which caused stress because of limited rest time. Rey also shared difficulty joining school activities because dialysis required much of his time. Participants emphasized the need to plan, prioritize, and adjust their schedules to prevent treatment from interfering with responsibilities. Grace, JV, and Laura described organizing their daily activities around dialysis schedules, school, work, and rest. These results show that hemodialysis reorganizes young adults' time and limits their participation in ordinary roles. The treatment schedule becomes a central structure around which daily life is arranged. This supports the view that dialysis affects not only physical health but also role function and quality of life. Hemodialysis addresses complications of advanced chronic kidney disease, including fluid overload, high blood pressure, and anemia (Mayo Clinic, 2023), yet its demanding schedule can interrupt academic, occupational, and social responsibilities. The findings are also consistent with Rafiee-Vardanjani et al. (2025), who identified increasing daily life challenges and modifications in care and treatment routines as key parts of patients' experiences. From Roy's Adaptation Model, these disruptions reflect challenges in the physiological-physical and role function adaptive modes (Roy, 1970; Mohammed, Hassan, & El Gawab, 2022).

3.2 Confronting Uncertainty and Learning the Illness

The participants reported that the early stage of dialysis was marked by fear, confusion, stress, and uncertainty. Daisy described fear at the beginning of dialysis because she did not know how to face its effects. Grace experienced confusion about what to do and how medications affected her body, while JV shared stress and anxiety because the treatment process was difficult to understand. These findings showed that limited knowledge about hemodialysis intensified emotional distress during the initial stage of treatment. This finding suggests that uncertainty is a major part of the early hemodialysis experience among young adults. Lack of understanding about the procedure, medications, outcomes, and long-term demands of treatment can heighten fear and anxiety. Ofori-Ansah et al. (2024) similarly reported that young adults with kidney failure often experience unmet informational and decisional needs, making coping more difficult because of limited guidance and support. From Roy's Adaptation Model, this reflects adaptive processes in the self-concept and role function modes, as individuals learn to respond to internal and external demands related to illness and treatment (Roy, 1976).

3.2.1 Gaining Control Through Understanding

As participants became more familiar with hemodialysis, they reported gaining a stronger sense of control over their condition. Princess shared that her fear gradually disappeared after she understood the treatment process. John emphasized that asking for help should not be viewed as shameful but as a form of strength, while Princess recognized the importance of self-care and discipline to endure the continuing demands of dialysis. These findings indicate that understanding the illness and treatment process helps reduce fear and supports adaptation. Knowledge, acceptance of support, and self-care strengthened participants' confidence in managing hemodialysis. This supports Ramírez-García et al. (2025), who emphasized that patient-centered care and effective communication between patients and healthcare providers are essential for adaptation to hemodialysis. The participants' narratives show that learning the illness is not only informational but also emotional and practical, allowing young adults to develop responsibility, discipline, and preparedness.

3.3 Relational Anchoring and Advocating for Social Understanding

The findings showed that family members, partners, friends, fellow patients, and healthcare providers served as important sources of emotional, practical, and psychological support. Grace described her family as her strength and daily source of hope, while John emphasized the support of his partner and the peace he gained from staying close to understanding family

and friends. Nicole, Daisy, Laura, Princess, JV, and Rey also expressed the importance of family, faith, companionship, and shared support in enduring treatment. Participants also reported that unity, cooperation, and small improvements in health became sources of motivation. These findings show that supportive relationships function as lifelines for young adults undergoing hemodialysis. Relational support helped reduce loneliness, strengthen motivation, and improve emotional stability. This is consistent with Osuna et al. (2023), who noted that the challenges faced by young adults on hemodialysis go beyond physical symptoms and include psychological and social burdens. Derasin and Derasin (2024) also highlighted the role of familial and social support in strengthening resilience, while Shouket et al. (2022) emphasized the protective effects of peer and healthcare provider support. The findings also support Kasan et al. (2025), who found a positive relationship between family support interventions, self-care behavior, and quality of life among chronic kidney patients undergoing hemodialysis. Overall, the results confirm that emotional and informational support are essential for hemodialysis patients (Sułkowski et al., 2024).

3.3.1 Isolation, Connection, and Misunderstanding

Participants also described tension between isolation and connection. JV expressed difficulty explaining his condition to friends, which caused feelings of being misunderstood. However, he and John found emotional relief in talking with fellow patients who shared similar experiences. Daisy described choosing quality relationships over many social connections and sometimes preferring solitude to rest and process emotions. Laura also emphasized following healthcare workers' advice as part of managing her condition. These findings suggest that the social experience of hemodialysis is complex. While relationships can provide emotional relief, misunderstanding and limited awareness can also lead to withdrawal and isolation. This reflects how communication barriers and limited understanding of chronic illness may create emotional distance (Livingstone, 2023). At the same time, peer interaction and selective relationships provide belonging, emotional validation, and shared coping. The findings also show that solitude may function as a coping mechanism rather than only a sign of isolation.

3.3.2 Public Awareness, Reduced Stigma, and Broader Support

The participants expressed the need for greater public awareness, reduced stigma, and stronger social and financial support systems. John wanted more people to understand his condition so he could be better supported. Daisy described using stress-relieving activities such as walking and hobbies to stay positive and productive. Princess emphasized the need for financial assistance to reduce the burden of medication expenses, while Rey called for support groups where young patients could share experiences and encourage one another. These findings show that the participants' struggles are shaped not only by illness and treatment but also by social understanding, financial burden, and availability of support systems. Their call for awareness reflects a desire for empathy, stigma reduction, and community recognition of hemodialysis experiences. Shahgholian and Yousefi (2018) emphasized that empathy and quality care enrich patient experiences, while Santos et al. (2024) recommended educational programs to improve awareness among patients and communities. Elias et al. (2025) also supported person-centered care that includes psychological and social well-being. The need for support groups and financial assistance further shows the importance of emotional, social, and economic structures in helping young adults manage long-term dialysis (Marques and Battistella, 2025).

3.4 Spiritual Resilience and Purpose

The findings revealed that spirituality, faith, prayer, and hope were central coping resources for the participants. Grace described prayer as a source of strength and peace of mind, while Laura shared that faith and family support sustained her. Princess emphasized hope and positive thinking as important in continuing treatment. Laura also described finding meaning in life despite imperfection and difficulty, while Rey recognized that mental and emotional well-being are as important as physical health. These findings indicate that spirituality helped participants endure pain, uncertainty, and emotional distress. Spiritual anchoring gave them comfort, resilience, and meaning throughout their treatment journey. This supports Saedi et al. (2024), who found that spiritual health, psychological well-being, and resilience influence treatment adherence among hemodialysis patients. Bulbul et al. (2026) also found that adherence was positively related to faith and psychological resilience. Zhou et al. (2025) further reported that spiritual well-being among hemodialysis patients was positively correlated with hope. The findings also support Lamers et al. (2011), who found that higher emotional well-being improves recovery and survival in physically ill patients, and da Silva Junior et al. (2024), who noted that spirituality and religiosity can enhance emotional resilience, improve well-being, reduce depression, and provide emotional support among individuals with chronic kidney disease**.**

3.4.1 Resilience, Adaptive Coping, and Reconstructed Identity

Participants demonstrated resilience through gratitude, acceptance, relaxation, positive thinking, and meaning-making. JV described dialysis as a major challenge that taught patience and endurance, and he expressed gratitude after completing treatment sessions. John used breathing and meditation to relax the mind and body. Nicole read positive stories for inspiration, while Daisy emphasized the need for support rather than judgment. John also viewed his condition as an opportunity to live better and stronger, while Nicole realized the importance of health and the responsibility of caring for the body and mind. These findings show that resilience among young hemodialysis patients is both personal and relational.

Participants coped by finding meaning in their struggles, appreciating small blessings, regulating emotions, and seeking encouragement from others. This supports Bonsra et al. (2025), who indicated that coping mechanisms such as acceptance, emotional regulation, avoidance coping, religious faith, and living one day at a time help patients adjust and regain a sense of agency. The findings also show that chronic illness reshapes identity and priorities, which is consistent with Clur and Barnard (2024), who stated that reestablishing identity is essential to psychosocial adaptation and that meaning-making is central to coping with diagnosis.

3.5 Dependence on Systems and the Call for Responsive Care

The findings showed that participants depended heavily on healthcare systems, professionals, and organized support structures to continue treatment and manage their condition. Grace expressed the need for more counseling services to support emotional and mental health. JV emphasized the importance of doctors and nurses in guiding patients on how to care for their condition. Princess highlighted rest as necessary for recovery and preparation for the next dialysis session. These narratives showed that healthcare support extended beyond clinical treatment to include guidance, reassurance, emotional support, and recovery management. These findings suggest that hemodialysis patients require holistic and responsive healthcare systems. Healthcare support serves as essential scaffolding that helps patients manage long-term treatment physically and emotionally. Hidayat et al. (2025) underscored the importance of guaranteeing healthcare services, especially in critical care areas such as hemodialysis. However, Ludusanu et al. (2025) noted that healthcare institutions face increasing pressure to provide high-quality, patient-centered care while reducing environmental impact. From Roy's Adaptation Model, dependence on hemodialysis reflects continuous interaction with external systems that sustain survival while requiring adaptation across several domains (Roy, 1970; Mohammed et al., 2022).

3.5.1 Barriers and Gaps in Care Systems

Participants identified barriers in healthcare access, comfort, appointments, and service delivery. John called for more accessible and comfortable dialysis services to reduce stress and discomfort. Daisy emphasized the need for faster and easier appointment and service processes to avoid treatment delays and complications. Laura recommended programs that support both physical and mental health, while Rey emphasized public education to prevent stigma. Princess also described how friends' love and support helped maintain a positive outlook despite her condition. These findings show that gaps in healthcare delivery and social support add to the burden of hemodialysis. Limited accessibility, uncomfortable facilities, delayed services, and lack of mental health programs can intensify physical and emotional distress. Uwiragiye et al. (2025) similarly identified health system-related challenges, including appointments, limited access to hemodialysis services, and logistical issues, along with physical, emotional, and psychosocial challenges. The findings indicate that responsive care must address not only medical procedures but also comfort, accessibility, emotional counseling, public education, and social support.

3.6 Exhaustive Description of the Lived Experience

The lived experiences of young adults undergoing hemodialysis in Zamboanga del Norte were marked by physical suffering, disrupted routines, emotional uncertainty, reliance on relationships, spiritual resilience, and dependence on healthcare systems. Participants experienced fatigue, pain, weakness, and repeated recovery cycles that affected school, work, relationships, and everyday activities. They also faced fear and confusion at the beginning of treatment but gradually developed understanding, discipline, and coping strategies. Overall, the findings show that young adults on hemodialysis live through a complex journey of suffering and strength. Their bodies are limited by illness and treatment, yet they continue to adapt through family support, peer connection, faith, prayer, hope, self-care, and personal resilience. At the same time, their narratives reveal a strong need for more compassionate, accessible, and holistic care that includes emotional counseling, financial assistance, public awareness, reduced stigma, and stronger social support systems. These experiences show that hemodialysis must be understood as a whole-person experience involving the body, emotions, relationships, spirituality, identity, and healthcare systems.

4. Conclusion & Recommendations

The study concluded that young adults undergoing hemodialysis in Zamboanga del Norte experience a complex journey shaped by physical suffering, emotional struggles, disrupted routines, and continuous adaptation to chronic illness and long-term treatment. Their experiences revealed persistent fatigue, bodily weakness, pain, and physical limitations that affected their daily functioning, responsibilities, school, work, relationships, and quality of life. Despite fear, confusion, and uncertainty during the early stages of treatment, the participants gradually developed understanding, self-discipline, personal responsibility, and adaptive coping mechanisms. The findings further showed that family, partners, friends, fellow patients, healthcare providers, faith, prayer, gratitude, acceptance, and positive thinking served as important sources of strength, resilience, hope, and meaning. Overall, the lived experiences of these young adults reflected suffering, adjustment, resilience, and hope, as well as the need for responsive, accessible, holistic, and patient-centered care.

Based on the findings, hospitals and dialysis units should strengthen life-compatible and patient-centered services by

providing flexible dialysis schedules, comfortable treatment spaces, and opportunities for peer connection among young patients. Healthcare providers and mental health professionals should integrate regular mental health check-ins during dialysis sessions to address pain, fatigue, emotional distress, and treatment adherence. Families and caregivers should receive education and counseling on post-dialysis care, diet and medication management, physical depletion, and emotional support. Policymakers should increase financial subsidies for dialysis treatment and transportation for young adults and promote public awareness campaigns in schools, workplaces, and communities to reduce stigma and strengthen social understanding. Future researchers should conduct intervention-based studies on resilience, local culture, spirituality, and digital support groups to improve the quality of life of regional dialysis patients.

The study was limited to eight young adults undergoing maintenance hemodialysis in Zamboanga del Norte who had received treatment for at least one year. Since the study used a qualitative phenomenological design, the findings were not intended for broad generalization but for an in-depth understanding of the participants' lived experiences. The results were based on participants' personal narratives gathered through semi-structured interviews; therefore, the findings depended on their willingness, memory, and ability to express their experiences. The study was also limited to the local healthcare and sociocultural context of Zamboanga del Norte, which may differ from the experiences of young adults undergoing hemodialysis in other settings.

Compliance with ethical standards

The study complied with ethical standards by protecting participants' rights, welfare, privacy, and confidentiality throughout the research process. Participants were informed that some interview questions might cause emotional or psychological discomfort and that they could pause, skip any question, or end the interview at any time without consequences. Confidentiality was maintained by storing data in password-protected digital files and locked physical storage accessible only to the researcher and authorized research advisers. Hospital staff and administrators had no access to individual responses or raw data. Personal identifiers were removed or anonymized in all documents and publications, and data handling followed Republic Act 10173, the Data Privacy Act of 2012. All data were retained securely for five years after study completion and were disposed of through secure deletion, shredding, or incineration after the retention period.

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