The Compliance to Medication, Social Support and Quality of Life of Hemodialysis Patients with HIV and Hepatitis in Selected Healthcare Facilities in Bali, Indonesia Year 2022

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ABSTRACT

Background: Patients living with HIV/AIDS who are undergoing hemodialysis therapy have compliance-related issues regarding their medications and social supports, which affect their quality of life.

Objectives: The study aims to determine the medication compliance, effect of social support, and quality of life level of hemodialysis patients with HIV and hepatitis in selected healthcare facilities in Bali, Indonesia.

Method: Patients with HIV/AIDS undergoing hemodialysis were selected from healthcare facilities in Bali. This design permitted the researcher to gain an understanding of the phenomena, and personal values of this population through the use of both surveys and interviews and intended to find the relationship between medication compliance, patients' social support, and patients' quality of life which are all anchored on a four-point Likert scale. This research used a weighted mean for the assessment of the patients. Descriptive statistics were used to describe and analyze the information gathered. Pearson product moment coefficient correlation was used to determine significant differences and relationships between variables.

Results: Regarding the medication compliance, social support, and quality of life of hemodialysis patients, there was a statistically significant relationship between medication compliance and social support (p-value 0.001), which implies that a decrease in medication compliance would minimally diminish social support. There is a significant relationship between medication compliance and quality of life (p-value 0.000), which implies that an increase in medication compliance would moderately improve quality of life. Furthermore, it depicted that there is a statistically significant relationship between social support and quality of life (p-value 0.029), which implies that a decrease in social support for maintaining a medication regimen would minimally diminish quality of life.

Conclusion: The statistical analysis showed a significant relationship between self-assessed medication compliance, social support, and quality of life of patients with HIV and hepatitis in selected healthcare facilities in Bali.

Keywords: patients; HIV; hepatitis; medication compliance; social support; quality of life

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Introduction

Indonesia is the fourth most populated country in the world and the largest country of ASEAN. The population of Indonesia in 2021 was 273.7 million people (World Bank, 2021). The geographical setting of some areas in Indonesia hinders the development and advancement of health services causing an imbalance in the population of Indonesia, especially in the health care sector. Based on data from the Directorate General of P2P sourced from the HIV, AIDS, and STI Information System (SIHA) in 2019, the 4th quarter report states that cases of HIV and AIDS in men are higher than in women. In 2019, 64.50% of HIV cases were male, while 68.60% of AIDS cases were female. This is in line with the results of HIV reports by sex from 2008-2019, where the percentage of male sufferers is always higher than females. The age group represented by 25–49-year-olds or those of reproductive age, contains the highest number of HIV infections each year.

Due to the number of cases and the spread in each of the provinces and territories, the Indonesian government, planned, created, and developed programs to prevent any increases in the number of cases of HIV/AIDS. The Indonesian government implemented this program through the National AIDS Commission. The National AIDS Commission comprises several governmental structures, including provinces, districts, and regions.

The Province of Bali has the second highest rate of AIDS with 17,765 cases per 100,000 and ranks seventh highest in the number of HIV infections with 2,283 cases, and eighth with AIDS with 240 cases in 2019. (SIHA-MoH, 2020).

According to the Ministry of Health (MoH), HIV sufferers are predominantly of reproductive age. The largest number of sufferers come from the age range of 25- to 49-year-olds, accounting for 69.9% of total cases in 2020. This is followed by the age range of 20 to 24-year-olds at 15.8% and HIV patients over 50-year-olds at 9.1%. Meanwhile, as many as 2.9% of HIV sufferers are from the age of 15 to 19 years old, and those under age four account for 1.5% of cases. Finally, the lowest percentage of reported HIV sufferers is between the ages of 5 to 14 years old at 0.8%. The most reported AIDS cases came from those of reproductive age. (MoH, 2020).

People infected with HIV require antiretroviral (ARV) treatment to suppress the amount of HIV in the body. However, approximately 30% of people with HIV/AIDS can develop kidney disease. The suppressed virus has no potential to infect other people and those who have a good quality of life. Good quality of life, compliance, and social support (which is support from family, friends, and others), can improve mental and physical health and can help older adults living with HIV keep their virus levels low. (MoH, 2020).

Chronic hemodialysis patients are more at risk for getting Blood Borne Virus (BBV) infections such as hepatitis B, hepatitis C, and HIV because of repeated vascular access (Chou *et al.*, 2019). In hemodialysis patients, risk factors influencing the transmission of BBV infection include the history of blood transfusion, the history of kidney transplantation, and the duration of hemodialysis (Liana *et al.*, 2021).

However, there is still a significantly increased risk of (BBV) infections such as hepatitis B, hepatitis C, and HIV in Indonesia. In particular, Bali province recorded 2,748 patients in 2019 with only 342 certified nurses and 516 machines. The lack of services for anti-HCV positive, HBsAg positive, and anti-HIV positive people may result in an increasing number of patients with HIV and hepatitis undergoing lifetime therapy that affects their quality of life. This includes the lack of social support due to social stigmas and their lack of compliance with medication therapies (Indonesian Renal Registry, 2019).

Therefore, this study aimed to determine the relationship between medication compliance, social support, and quality of life for hemodialysis patients with HIV and hepatitis in selected healthcare facilities in Bali with the end goal of proposing a comprehensive patient-centred care framework.

Material and Methods

Study Design

This study is descriptive research to find relationships between medication compliance, social support, and quality of life of patients with HIV and hepatitis in selected healthcare facilities in Bali, Indonesia.

Sample/Participants

A total of 48 people with HIV and Hepatitis B undergoing therapy were selected for this study. This computation used G*power analysis for 80% of the power to detect an effect size of 0.499 at a 5% significant level. The researcher utilized purposive sampling, which is a type of non-probability sampling. This involves choosing readily available subjects that the researcher believes are typical or representative of the accessible population. Purposive sampling allows for the selection of specific participants when a researcher has identified the required characteristics, which in this case, are undergoing hemodialysis as patients with a diagnosis of HIV/AIDS, Hepatitis C, and B.

Data Collection

Data were collected between November 2021 and March 2022 in selected healthcare facilities in Bali. The researcher's mobile number was provided for participants, should they require clarification about any aspects of the study. All completed self-administered questionnaires were automatically transmitted to an electronic portal. Questionnaires were distributed electronically using Google Forms due to the active COVID-19 pandemic crisis at the time of the study. Questionnaires were adapted from Medication Compliance (Drug Attitude Inventory, 2013 by Hogan et.al., 1983); Social Support (Interpersonal Support Evaluation List by Cohen et.al., 1983); and Quality of Life (WHO Quality of Life Scale, 2019) which are all anchored on Likert Scale. Verbal interpretation was used to explain the Lingkert scale. For example, Strongly Agree represented the range of 4.00-3.00 on the scale, while Agree was 2.99-2.00, Disagree was 1.99-1.00, and Strongly Disagree was 1.00-0.99.

The interpretation of the scale regarding medication compliance is seen in terms of Full Compliance, which is equal to Strongly Agree, Substantial Compliance, which is equal to Agree, Mediocre compliance, which is interpreted as Disagree, and finally Low/Non-Optimal Compliance, which is interpreted as Strongly Disagree. The Social Support Interpretation Scale explains the following: Always has support equal to Strongly Agree; frequently has support equal to Agree; occasionally interprets support as Disagree; and never interprets support as Strongly Disagree. Finally, the Quality-of-Life Interpretation Scale is explained as follows: Strongly Agree means very good quality of life; Agree = good quality of life; Disagree equals moderate quality of life; and Strongly Disagree equals poor quality of life.

Medication compliance focused on the dimensions of adherence to prescriptions, attitudes toward medications, and pharmacologic therapy with a total of 30 items. On the other hand, social support focused on the components of appraisal support, tangible support, self-esteem support, and belonging support, with 40 items. Moreover, quality of life included the domains of physical health, psychological, social relationships, and environment, with 26 items (Norhayati, 2019).

Data Analysis

The statistical analysis program analyzed the numerical data using parametric tests for study purposes. The average weighted mean (AWM) has been utilized to assess the patients. The Pears on Product Moment Coefficient Correlation was used to establish the relationship between variables. The qualitative interpretation of the degree of linear relationship covers the range of 0.0 to 1.00.

Results

The characteristics of the patients

A total of 48 patients were included in the research finding medication compliance focused on the dimensions of adherence to prescriptions, attitudes to medications, and pharmacologic therapy. Social support focuses on the components of appraisal support, tangible support, self-esteem support, and belonging support. Moreover, quality of life includes the domains of physical health, psychological health, social relationships, and environment. Most participants included those who were above 50 years old (39.6%), followed by those who were between 40 and 49 years old (31.3%). The lowest number of participants ranges between 30 and 39 years old (29.2%). The majority of the participants were female (64.6%) which is twice as much as the number of male patients (35.4%). The majority of the patients included those with hepatitis C (39.6%), followed by those with HIV/AIDS (29.2%) and those with hepatitis B (25%). Those with HIV/AIDS with hepatitis illustrated a minimal percentage (6.3%), as shown in Table 1.

Table 1. The characteristics of the patients

	Frequency	Percentage (%)
Age		
30 - 39 years old	14	29.2
40 - 49 years old	15	31.3
Above 50 years old	19	39.6
Sex		
Male	17	35.4
Female	31	64.6
Clinical Diagnosis		
HIV/AIDS	14	29.2
HIV/AIDS with Hepatitis	3	6.3
Hepatitis B	12	25.0
Hepatitis C	19	39.6
Total	**48**	**100**

The Patients' Compliance with Medication

The assessment of the patients with HIV and hepatitis on their medication compliance in selected healthcare facilities in Bali in terms of the adherence to prescriptions domain, with an overall mean of 3.42 was verbally interpreted as strongly agree. The strongest component of adherence to the prescription's domain, in which the majority of the patients with HIV and hepatitis strongly agree, pertains to "I need to take medication until I feel better" ($\bar{x}$ = 3.58). Meanwhile, the weakest component of adherence to the prescription's domain in which the majority of the patients with HIV and hepatitis strongly agree refers to "I feel nothing unnatural in my mind and body as I become dependent on medications" ($\bar{x}$ = 3.27) is a source of economic burden and various complications, hence adherence to prescriptions becomes an issue. Among the many chronic diseases, patients with end-stage renal disease believe that their life relies on machines, which is associated with many physiological and psychosocial challenges, as shown in Table 2.

Table 2. The Patients with Medication Compliance

Variables	Mean	Verbal Interpretation	Criteria Interpretation
1. I need to take medication until I feel better	3.60	Strongly Agree	Full Compliance
2. I need to take my medication regularly even when I am not in hospital	3.31	Strongly Agree	Full Compliance
3. I am more aware of what I am doing and what is going on around me when I am on medication	3.54	Strongly Agree	Full Compliance
4. I believe taking medications will do me no harm.	3.33	Strongly Agree	Full Compliance
5. I take my medication to recover from my illness	3.42	Strongly Agree	Full Compliance
6. I get along better with people when I am on medication	3.56	Strongly Agree	Full Compliance
7. I feel nothing unnatural in my mind and body as I become dependent on medications	3.27	Strongly Agree	Full Compliance
8. I have clearer thoughts about my medication	3.33	Strongly Agree	Full Compliance
9. I am happier and feel better when I am taking medications	3.50	Strongly Agree	Full Compliance
10. I take my prescribed medication to control my illness that other people (not myself) don't like	3.29	Strongly Agree	Full Compliance
Overall Mean	**3.42**	**Strongly Agree**	**Full Compliance**

The Patients' Social Support

        The assessment of the patients with HIV and hepatitis on their social support in selected healthcare facilities in Bali in terms of the appraisal support domain with an overall mean of 3.07, was verbally interpreted as agree. The strongest component of the appraisal support domain in which the majority of the patients with HIV and hepatitis strongly agree pertains to "I know at least one person whose advice I can really trust" ($\overline{x}$ = 3.50). Meanwhile, the weakest component of the appraisal support domain in which the majority of the patients with HIV and hepatitis agree refers to "I have someone whom I can trust to give me good financial advice" ($\overline{x}$ = 2.52), as shown in Table 3.

Table 3. The Patients' Social Support

Variables	Mean	Verbal Interpretation	Criteria Interpretation
1. I have several people whom I trust to help me solve my problems.	3.13	Agree	Often has support
2. I have someone with whom I feel comfortable to talking about intimate personal problems	3.21	Agree	Often has support
3. I have some people who can give me an objective view of how I'm handling my problems	2.79	Agree	Often has support
4. I have some people with whom I can share my most private worries and fears with	3.10	Agree	Often has support
5. I have someone I can turn to for advice about handling problems with my family	3.21	Agree	Often has support
6. I know someone I can turn to when I need suggestions on how to deal with a personal problem	3.19	Agree	Often has support
7. I could turn to someone for advice about making career plans or changing my job	3.04	Agree	Often has support
8. I have someone whom I can trust to give me good financial advice	2.52	Agree	Often has support
9. I can always find someone who could give me good advice about how to handle when a family crisis arises.	3.04	Agree	Often has support
10. I know at least one person whose advice I can really trust	3.50	Strongly Agree	Always has support
Overall Mean	**3.07**	**Agree**	**Often has support**

The Patients' Quality of Life in terms of Physical Health

        The assessment of the patients with HIV and hepatitis on their quality of life in selected healthcare facilities in Bali in terms of the physical health domain with an overall mean of 2.57, were verbally interpreted as agree. The strongest component of the physical health domain in which the majority of the patients with HIV and hepatitis strongly agree pertains to "I need so much medical treatment to function in my life" ($\overline{x}$ = 3.44). Meanwhile, the weakest component of the physical health domain in which the majority of the patients with HIV and hepatitis disagree refers to "I am satisfied with my work capacity." ($\overline{x}$ = 2.15), as shown in Table 4.

Table 4. The Patients' Quality of Life in terms of Physical Health

	Variables	Mean	Verbal Interpretation	Criteria Interpretation
1.	I feel that physical pain prevents me from doing what I need to do.	3.06	Disagree	Quality of life is moderate
2.	I need so much medical treatment to function in my life.	3.44	Strongly Agree	Quality of life is very good
3.	I have enough energy for everyday life.	2.27	Disagree	Quality of life is moderate
4.	I am well able to get around.	2.50	Disagree	Quality of life is moderate
5.	I am satisfied with the amount of my sleep I get.	2.17	Disagree	Quality of life is moderate
6.	I am satisfied with my ability to perform my daily living activities.	2.40	Disagree	Quality of life is moderate
7.	I am satisfied with my capacity for work.	2.15	Disagree	Quality of life is moderate
	Overall Mean	**2.57**	**Agree**	**Quality of life is good**

The Patients' Quality of Life in terms of their Psychology

The assessment of the hemodialysis patient respondents with HIV and hepatitis on their quality of life in selected healthcare facilities in Bali in terms of the psychological domain, with an overall mean of 2.81, were verbally interpreted as agree. The strongest component of the psychological domain, in which the majority of the hemodialysis patient respondents with HIV and hepatitis agree pertains to "I also experience negative feelings such as blue mood, despair, anxiety, and depression" ($\bar{x}$ = 3.27). Meanwhile, the weakest component of the psychological domain in which the majority of the hemodialysis patient respondents with HIV and hepatitis disagree, refers to "I enjoy life my life very much" ($\bar{x}$ = 2.04), as shown in Table 5.

Table 5. The Patients' Quality of Life in terms of Psychological

	Variables	Mean	Verbal Interpretation	Criteria Interpretation
1.	I enjoy life my life very much.	2.04	Disagree	Quality of life is moderate
2.	I feel I have à life that is meaningful.	2.92	Agree	Quality of life is good
3.	I am well able to concentrate.	3.08	Agree	Quality of life is good
4.	I am able to accept my bodily appearance.	2.35	Disagree	Quality of life is moderate
5.	I am very satisfied with myself.	3.17	Agree	Quality of life is good
6.	I also experience negative feelings such as blue mood, despair, anxiety, and depression.	3.27	Agree	Quality of life is good
	Overall Mean	**2.81**	**Agree**	**Quality of life is good**

The Patients' Quality of Life in terms of Social Relationships

The assessment of the hemodialysis patient respondents with HIV and hepatitis on their quality of life in selected healthcare facilities in Bali in terms of the social relationship domain, with an overall mean of 3.07, was verbally interpreted as agree. The strongest component of the social relationship domain in which the majority of the patient agrees pertains to "I am satisfied with my personal relationships." ($\bar{x}$ = 3.27). Meanwhile, the weakest component of the social relationship domain in which the majority of the hemodialysis patient respondents with HIV and hepatitis agree refers to "I am satisfied with my sex life." ($\bar{x}$ = 2.71), as shown in Table 6.

Table 6. The Patients' Quality of Life in terms of Social Relationships

Variables	Mean	Verbal Interpretation	Criteria Interpretation
1. I am satisfied with my personal relationships.	3.27	Agree	Quality of life is good
2. I am satisfied with my sex life.	2.71	Agree	Quality of life is good
3. I am satisfied with the support I get from my friends.	3.23	Agree	Quality of life is good
Overall Mean	**3.07**	**Agree**	**Quality of life is good**

The Patients' Quality of Life in terms of Environment

The assessment of the hemodialysis patient respondents with HIV and hepatitis on their quality of life in selected healthcare facilities in Bali in terms of the environment domain with an overall mean of 2.21, were verbally interpreted as agree. The strongest component of the environment domain, in which the majority of the patients agree pertains to "I feel safe in my daily life." ($\overline{x}$ = 3.17). Meanwhile, the weakest component of the environment domain in which the majority of the hemodialysis patient respondents with HIV and hepatitis strongly agree refers to "I have enough money to meet my needs." ($\overline{x}$ = 2.71), as shown in Table 7.

Table 7. The Patients' Quality of Life in terms of Environment

Variables	Mean	Verbal Interpretation	Criteria Interpretation
1. I feel safe in my daily life.	3.17	Agree	Quality of life is good
2. I have a healthy physical environment.	1.94	Disagree	Quality of life is moderate
3. I have enough money to meet my needs.	1.56	Strongly Disagree	Poor Quality of Life
4. I get enough information that I need in my day-to-day life.	2.46	Disagree	Quality of life is moderate
5. I get opportunity for leisure activities.	2.00	Disagree	Quality of life is moderate
6. I am satisfied with the conditions of my place.	1.73	Strongly Disagree	Poor Quality of Life
7. I am satisfied with my access to health services.	2.92	Agree	Quality of life is good
8. I am satisfied with my mode of transportation.	1.94	Disagree	Quality of life is moderate
Overall Mean	**3.07**	**Agree**	**Quality of life is good**

Relationships among Self-Assessed medication compliance, social support, and quality of life

The self-assessment of medication compliance, social support, and quality of life of hemodialysis patient respondents with HIV and hepatitis in selected healthcare facilities in Bali showed that there is a statistically significant relationship between medication compliance and social support (p-value 0.001), which implies that a decrease in medication compliance would minimally diminish social support. Moreover, it illustrated that there is a statistically significant relationship between medication compliance and quality of life (p-value 0.000) which implies that an increase in medication compliance would moderately improve quality of life. Furthermore, research demonstrated that there is a statistically significant association between social support and quality of life (p-value 0.029), implying that a decline in medication compliance would have a negligible impact on quality of life.

The association between medication compliance, social support, and quality of life in hemodialysis patients represents a new area of interest. Understanding the relationship between social support and quality of life should prompt health professionals to provide beneficial care to hemodialysis patients. Hemodialysis is the most common treatment method for renal failure and imposes a considerable burden not only on patients but their families. A key element in achieving better quality of life is to support hemodialysis patients. Social support consists of a modifiable psychosocial factor which is associated with hemodialysis patients' medication compliance and perception of quality of life and significantly more, with their survival. Patients undergoing hemodialysis have varying needs for social support, which are mostly determined by the quality and quantity of their social network or the severity of the condition.

Effective and successful management of hemodialysis patients' health problems necessitates many improvements and alterations to a patient's routine, habits, and general lifestyle. Adherence to fluid and dietary restrictions and medication guidelines and attending prescribed hemodialysis sessions is essential to managing end-stage renal failure patients, as shown in Table 8.

Table 8. Relationship between compliance to medication, social support, and quality of life of the patients with HIV and hepatitis

Variables	τ_b Correlation Coefficient	Degree of Relationship	P value	Decision
1. Compliance to Medication to Social Support	.457**	Low positive Correlation	.001	With significant correlation
2. Social Support to Quality of Life	.654**	Moderate positive Correlation	.000	With significant correlation
3. Quality of Life to Compliance to Medication	.315*	Low positive Correlation	.029	With significant correlation
4. Quality of Life to Compliance to Medication	.315*	Low positive Correlation	.029	With significant correlation

Discussion

The study found that patients with HIV and hepatitis are fully complying with their prescribed medication. Hemodialysis is a source of economic burden and various complications, hence adherence to prescriptions becomes an issue. Among the many chronic diseases, patients with end-stage renal disease on hemodialysis believe that their life relies on the hemodialysis machine, which is associated with many physiological and psychosocial challenges. The chronic disease and process of hemodialysis treatment are long-term stressors that alter patients' well-being and everyday lifestyle.

Hemodialysis patients face different problems based on the dialysis process, its frequency, and the place of treatment. However, according to Harwood (2019), they are forced to compromise with this permanent situation, which includes painful injections and needle pricks every day. Patients cannot even count on short breaks without contact with a dialysis center or home dialysis. The assessment of the hemodialysis patient respondents with HIV and hepatitis on their medication compliance in selected healthcare facilities in Bali confirmed that, in terms of adherence to medications, they need to take medication until they feel better. In terms of attitude toward medication, they consult with their doctors when they have concerns about their medication. In terms of pharmacologic therapy, they should keep taking medication even if they feel well.

In addition, researchers found that patients with HIV and hepatitis often have social support. Hemodialysis patients are exposed to chronic stress due to their specific symptoms and treatment, including itching, fatigue, as well as fluid and diet restrictions. Hemodialysis patients usually need to receive dialysis therapy three times weekly, which places limitations on other social life. Certain appraisal supports may alleviate these stresses. Hemodialysis, in particular, is responsible for a restricted daily routine since it imposes limitations on individuals affecting aspects of their biological, psychological, and social life.

This leads to a break in their lifestyle, causing the need to adapt to this new condition. Another aspect that seems to influence the outcome and quality of life of patients on hemodialysis is the perceived level of social support. The assessment of the hemodialysis patient respondents with HIV and hepatitis on their social support confirmed that in terms of the appraisal support domain, they know at least one person whose advice they can really trust. In terms of the tangible support domain, they can always find someone to help them if they need some help in moving to a new house or apartment. In terms of the self-esteem support domain, they know some people who think highly of them. In terms of the belonging support domain, they have so many people whom they can talk to when they feel lonely.

The first category refers to the availability of assistance from other people in the management or resolution of practical or operational situations of everyday life, such as material and financial support or help with several day-to-day activities. The availability of appraisal support from others in the management or settlement of practical or operational difficulties in everyday life, such as material and financial support or assistance with several day-to-day activities. Emotional support consists of behaviors such as listening, paying attention, or keeping company, which makes the person feel cared for. The social support network is a web of social relationships that each individual keeps, including the closest people, such as family and close friends.

Hemodialysis is a complex procedure for patients requiring frequent hospital or dialysis center visits, mainly three times a week, thus implying substantial changes in the patient's normal way of living. An assessment of health-related quality of life is a predictive indicator of the disease's outcome and as a valuable research tool in assessing the effectiveness of therapeutic intervention, patients' survival and hospitalizations. The assessment of the hemodialysis patient respondents with HIV and hepatitis on their quality of life in selected healthcare facilities in Bali confirmed that, in terms of the psychological domain, they also experience negative feelings such as blue mood, despair, anxiety, and depression. In terms of

the social relationship domain, they are satisfied with their personal relationships. In terms of the environmental domain, they feel safe in their daily life.

Among the modifiable lifestyle risk factors, physical inactivity plays a fundamental role in most chronic diseases. The issue is of particular relevance in hemodialysis patients, a patient category in which substantially deteriorated fitness and frailty are some of the main consequences that contribute to reduced quality of life. Nurses can help clients recognize their stress and support them toward achieving a positive quality of life. Nursing interventions for quality of life are aimed at reducing disability and promoting physical and mental well-being. Often clients consult nurses regarding how to obtain the best possible quality of life for themselves or their family members. While physical health is brought about by a person's conscious mind, it doesn't mean that all of them practise positive coping. There are some types of coping mechanisms that are maladaptive.

Quality of life is a broad multidimensional concept that usually includes subjective evaluations of both positive and negative aspects of life. Healthcare practitioners focus on health- and illness-related variables, while nurses focus on the discipline's holistic approach, the broadest view in defining life quality from different viewpoints, such as objective indicators, subjective views, life objectives, needs satisfaction, and life components. Quality of life is affected in a complex way by the patients' physical health, psychological state, level of independence, social relationships, personal beliefs, and their relationship to salient features of their environment. Some important sex-specific distinctions in several of the most prevalent medical conditions include obesity, diabetes, cardiovascular disease, and depression (Hudson, 2019).

Most patients with chronic kidney failure are treated with dialysis. The continued use of medications for dialysis treatment impacts their quality of life, including their activities of daily living, health, role functioning, and social functioning. Social support means providing physical and emotional support consisting of behaviors, such as listening, paying attention, or keeping company, which makes the person feel cared for. As dialysis treatment generally involves visiting the hospital two to three times per week for upwards of around three hours each time, it is believed to have a large effect on a patient's quality of life.

According to Mahedeo et.al. (2019), patients on dialysis deal with a painful long-term treatment and its complications, which impacts their quality of life and that of their families. Adding to the abovementioned factors, it is expected that a high number of comorbidities and, consequently, a high therapeutic complexity have an important impact on compliance. Regarding drug therapy, some factors may hinder the compliance of these patients, such as therapeutic complexity, adverse reactions induced by the drugs, and lack of understanding regarding the prescribed therapy.

Conclusion

According to the assessment of social support in the appraisal domain, people with HIV and hepatitis know at least one person they can trust for guidance. If they need assistance moving to a new

home or apartment, they can always find someone to help in the tangible support domain. In the self-esteem support domain, they know some individuals who are quite positive about them. They can talk to people in the belonging support domain when they feel lonely. When considering the psychological aspects of their quality of life, people with HIV and hepatitis report experiencing negative emotions such as hopelessness, melancholy, anxiety, and blue mood.

Limitations

The study was conducted in the Province of Bali, the study included several hospitals in different regions of Bali including Denpasar City, Badung, Bangli, Gianyar, Klungkung, Buleleng, Tabanan, Karangasem, and Jembrana. The assessment was conducted on a Google Form using adapted and validated research tools because of the social distancing policies in place during the COVID-19 pandemic. This condition made contact between the researcher, patients, families, and volunteers less possible.

Recommendations

The study results are of benefit for patients with HIV and hepatitis in helping them to stay motivated with taking medications. Selected healthcare facilities, such as hospitals, healthcare centers, clinics, and foundations, will be well-informed about the prescriptions they are taking as well as the potential harmful responses for patients. Their family members will be able to retain communication and social contact with patients, allowing them to keep a positive attitude on life and get emotional and financial assistance.

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