

EXPLORING THE FINANCIAL LITERACY OF LONG-TERMED DIALYSIS PATIENTS IN THE PHILIPPINES

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Abstract: *The study investigated the Financial Literacy of Long-Termed Dialysis Patients in the Philippines. This study employed a descriptive correlation design in its research tasks. The objective of this design is to provide fixed depictions of occurrences and establish the correlation between different variables and the respondents of the study are the sixty (60) long termed dialysis patients selected using the purposive sampling method. A criterion was formulated in selecting the respondents of the study. The selection criteria include being a Filipino citizen and being on dialysis treatment for seven (7) years and up. Moreover, the research instrument was modeled on the tool of Galang (2021). Financial literacy includes financial knowledge, financial behavior, financial attitude, and financial training. The result indicated that Long-term term dialysis patients have a high level of Financial Knowledge, Behavior, and Attitude. This finding suggests that long-term dialysis patients possess a strong understanding of financial matters, exhibit responsible financial behaviors, and hold positive attitudes toward managing their finances. These attributes may contribute to their ability to navigate the complex financial challenges associated with their medical condition and treatment. Likewise, possessing financial literacy can enable patients to effectively allocate funds for essential medical costs and actively pursue financial aid options when necessary.*

Keywords: *Financial Literacy, Long-Termed Dialysis Patients*

Introduction

The patient's ability to self-manage their chronic kidney disease (CKD) and its associated comorbidities—including how to adapt their lifestyle and deal with symptoms, medications, and the physical and psychological side effects of the disease—is crucial to the disease's management (Lin et. al., 2022, Derasin et. al., 2024). Moreover, Dialysis is the primary method of treatment for end-stage renal disease, which is a condition that is both dangerous and has the potential to be fatal. Patients suffering from renal disease who do not receive treatment through dialysis will ultimately pass away within a few weeks or months. In addition, the cost of dialysis therapy is exorbitantly high, which is especially problematic in a developing nation such as the Philippines. When it comes to managing one's finances, it is necessary to exercise caution and care to properly deal with the financial restraints that come with being a dialysis patient. Without proper financial planning, the high cost of dialysis therapy can quickly deplete one's savings and put them at risk of financial instability. Moreover, the burden of managing these expenses can add significant stress to an already challenging medical condition. Therefore, dialysis patients in developing nations like

the Philippines must explore all available resources and support systems to ensure they can afford the necessary treatment without compromising their overall well-being.

Different studies often attribute financial hardship to high healthcare expenditure, low-income levels, and unemployment associated with end-stage renal disease. The cost of treatments is a major source of financial hardship, especially in countries without universal healthcare coverage. While dialysis treatments are not sufficiently reimbursed in several countries (van der Tol et. al., 2019). Patients in some low-income countries need to cover most of the costs as out-of-pocket expenses (Luyckx et. al., 2019; Tang et. al., 2020). Moreover, patients often experience reduced productivity because of the demanding schedule of dialysis treatment and their disabilities (Walker, et. al., 2020) As a result, a lower employment rate and, consequently, lower income are observed globally, which further exacerbates the financial burden on dialysis patients. Additionally, the high cost of medications and other related healthcare expenses associated with managing kidney disease can also contribute to the financial challenges faced by these individuals.

Patients facing financial hardship may be forced to exhaust their savings, sell up their assets, or accumulate debt to cover their basic needs and medical expenses. If individuals lack adequate personal resources to manage worsening financial circumstances, they may discontinue their medical treatment (Derasin, 2019; Derasin et.al., 2021; Derasin et. al., 2023). Patients with other chronic conditions have documented the adverse effects of financial stress on their physical and psychological well-being (Derasin et. al., 2023). These effects can include increased levels of anxiety and depression, as well as a decline in overall quality of life. Additionally, the inability to afford necessary medications or treatments may lead to worsening health outcomes and potentially life-threatening complications.

In the Philippines, the cost of dialysis treatment is quite high and increasing each year, even with the assistance from PhilHealth it is still costly. This has posed a significant financial burden on many Filipinos who require regular dialysis sessions. The rising costs have made it difficult for some individuals to afford the necessary treatment, potentially compromising their health and well-being. For this reason, to get through this ordeal, dialysis patients should be financially literacy. Financial literacy is crucial for dialysis patients as it allows them to navigate the complex healthcare system and make informed decisions about their treatment options. Additionally, being financially competent enables them to effectively manage their medical expenses, such as medication costs and insurance coverage, ensuring they receive the necessary care without incurring excessive financial burden.

It is with these views and opinions that the researcher would like to conduct this study. The study would like to investigate the financial literacy of long-termed dialysis patients. The researcher believed that this study is beneficial to identify any gaps in financial knowledge and skills among long-term dialysis patients. By understanding their level of financial literacy, healthcare providers can develop targeted interventions and support systems to improve their financial well-being. Additionally, this study aims to contribute to the existing literature on the financial challenges faced by long-term dialysis patients, ultimately informing policymakers and healthcare professionals on how to better address these issues.

Methods and Materials

This study employed a descriptive correlation design in its research tasks. The objective of this design is to provide fixed depictions of occurrences and establish the correlation between different variables. This research methodology uses quantitative approaches to illustrate and examine the relationships between two or more variables. The study examined the financial literacy of individuals undergoing long-term dialysis treatment and identified various personal characteristics linked to their financial literacy. Moreover, the respondents of the study are the forty-two (42) long termed dialysis patients selected using the purposive sampling method. This method ensures that the participants have been carefully chosen based on specific criteria to represent a diverse range of experiences and backgrounds. The researchers believe that this sample size will provide valuable insights into the financial Literacy of long-term dialysis patients. The selection criteria include being a Filipino citizen and must be on dialysis treatment for seven (7) years and up. Other requirements for the selection process may include a valid medical certificate confirming the duration of dialysis treatment. Additionally, candidates must provide relevant medical records or documentation to support their eligibility to be a respondent of the study.

The research was carried out in Cebu City Philippines, the respondents were dialysis patients from different Dialysis Centers. The study's purpose was to investigate the financial literacy of dialysis patients. The researchers aimed to assess the financial literacy of dialysis patients in Cebu City, Philippines, as it plays a crucial role in their ability to manage the costs associated with their treatment. Understanding the financial challenges faced by these patients can help identify potential interventions and support systems to improve their overall well-being.

Moreover, the research instrument was modeled on the tool of Galang (2021) and adapted to the local conditions. Financial literacy includes financial knowledge, financial behavior, financial attitude, and financial training. Financial knowledge refers to the understanding of concepts such as budgeting, saving, investing, and managing debt. Financial behavior encompasses the actions and decisions individuals make regarding their finances, such as spending habits and investment choices. Financial attitude relates to one's beliefs, values, and emotions towards money and financial matters. Lastly, financial training involves acquiring the necessary skills and competencies to effectively manage one's finances.

Results and Discussion

This chapter contains the analysis and interpretation of data gathered based on the outcomes answered by the respondents to the instrument prepared by the researchers—this data regarding the financial literacy of long-term dialysis patients. The researchers conducted a thorough examination of the data to identify patterns and trends in the financial literacy of long-term dialysis patients. Additionally, statistical techniques were employed to draw meaningful conclusions and insights from the gathered information.

Table 1 Level of Financial Literacy in terms of Financial Knowledge.

| Indicator | Mea | Description |
|-----------|-----|-------------|
|-----------|-----|-------------|

| | n | |
|--|-------------|-------------|
| I understand financial terms and concepts | 3.58 | High |
| I know the time value of money | 3.62 | High |
| I use the basic concept of interest | 3.65 | High |
| I consider interest rates upon taking up loans. | 3.70 | High |
| I allocate my finances | 3.66 | High |
| I strategize to minimize the risk I get from my financial decisions. | 3.76 | High |
| I know the risks and returns of my financial decisions | 3.64 | High |
| I observe the market before making financial decisions | 3.72 | High |
| I know and consider my credit record | 3.69 | High |
| Before making deposits, I consider deposit protection | 3.68 | High |
| Grand Mean | 3.67 | High |

| Range of Section Means | Descriptive Level | Interpretation |
|-------------------------------|--------------------------|--|
| 4.20 – 5.00 | Very High | This means that the financial literacy and financial management practices described in the item are manifested at all times. |
| 3.40 – 4.19 | High | This means that the financial literacy and financial management practices described in the item are oftentimes manifested. |
| 2.60 – 3.39 | Moderate | This means that the financial literacy and financial management practices described in the item are sometimes manifested. |
| 1.80 – 2.59 | Low | This means that the financial literacy and financial management practices described in the item are rarely manifested. |
| 1.00 - 1.79 | Very Low | This means that the financial literacy and financial management practices described in the item are not manifested. |

Table 1 enlightened the level of financial literacy in terms of financial knowledge. It explained that with a grand mean of 3.67, the respondent has a high level of financial knowledge. The result implied that long-term dialysis patients have a good understanding of financial concepts and principles. This suggests that they are well-equipped to make informed decisions regarding their financial matters, such as managing their healthcare expenses and planning for their future financial needs. Additionally, this high level of financial knowledge may also contribute to their overall financial well-being and stability.

According to Derasin (2019), The cost of dialysis therapy is quite high, especially in a developing country such as the Philippines. To cope with the financial limitations associated with being a dialysis patient, it is essential to exercise prudence in managing one's finances. This can involve exploring options for financial assistance, such as government programs or charitable organizations, that may provide support for dialysis patients. Additionally, it is important to prioritize necessary expenses and cut back on non-essential spending to ensure that funds are allocated efficiently toward dialysis treatment. Moreover, Theofilou (2013) stated that individuals suffering from renal failure must confront numerous challenges, including those related to employment and financial circumstances. The constraints are evident in the physical and mental conditions of the patients. This will prompt individuals to establish priorities in their own lives. These priorities may involve making difficult decisions regarding their careers and financial stability. Additionally, individuals with renal failure may need to seek support from social services or explore alternative employment options that accommodate their health needs.

Table 2 Level of Financial Literacy in terms of Financial Behavior.

| Indicator | Mean | Description |
|---|-------------|--------------------|
| I do a monthly personal budget. | 3.55 | High |
| I consider price before making purchases | 3.45 | High |
| I review and assess expenditures at the end of the month. | 3.48 | High |
| I plan my budget to achieve my financial objective. | 3.51 | High |
| I pay utility bills on time. | 3.50 | High |
| I set aside money for saving. | 3.54 | High |
| I reallocate my finances when I ran over my budget | 3.55 | High |
| I use a credit card when I run out of money. | 3.61 | High |
| I withdraw cash from my credit card for my expenses. | 3.56 | High |
| I have reached the maximum limit on my credit card usage. | 3.52 | High |
| Grand Mean: | 3.53 | High |

| Range of Section Means | Descriptive Level | Interpretation |
|-------------------------------|--------------------------|--|
| 4.20 – 5.00 | Very High | This means that the financial literacy and financial management practices described in the item are manifested at all times. |
| 3.40 – 4.19 | High | This means that the financial literacy and financial management practices described in the item are oftentimes manifested. |
| 2.60 – 3.39 | Moderate | This means that the financial literacy and financial management practices described in the item are sometimes manifested. |

| | | |
|-------------|----------|--|
| 1.80 – 2.59 | Low | This means that the financial literacy and financial management practices described in the item are rarely manifested. |
| 1.00 - 1.79 | Very Low | This means that the financial literacy and financial management practices described in the item are not manifested. |

Table 2. expressed the level of financial literacy in terms of financial behavior. It expounded that with a Grand Mean of 3.53, the respondents have a high level of financial behavior. This result implied that long-term dialysis patients have a good understanding of and ability to manage their finances effectively. It suggests that they are likely to make informed decisions regarding their financial matters, such as budgeting, saving, and investing, which can contribute to their overall financial well-being. Additionally, this high level of financial behavior may also indicate that these patients are more likely to be financially prepared for unexpected medical expenses or emergencies related to their long-term dialysis treatment.

According to Chan et. al. (2019), Before starting dialysis, patients should have their financial situation assessed to help them make educated decisions about the type of treatment they need and to make the necessary long-term financial plans. This can provide patients with a clear understanding of the costs associated with dialysis, including the expenses for medications, equipment, and regular check-ups. Additionally, it allows healthcare professionals to explore potential financial assistance programs or insurance coverage options that may alleviate the financial burden for patients. Likewise, Malik et. Al. (2022), found that financial constraints exist for both individuals paying for dialysis and those receiving charitable dialysis, including transportation costs, income loss due to symptom burden, and treatment time constraints, which should be considered in dialysis decision-making.

Table 3 Level of Financial Literacy in terms of Financial Attitude.

| Indicator | Mean | Description |
|--|-------------|-------------|
| I would like to learn how to improve my personal finances. | 3.59 | High |
| I spend less than my income regularly. | 3.54 | High |
| I avoid borrowing to balance my personal budget. | 3.56 | High |
| I am spending rather than investing. | 3.63 | High |
| I plan and implement my personal savings. | 3.58 | High |
| I plan my future finances. | 3.60 | High |
| I maintain adequate financial records. | 3.62 | High |
| I am using multiple sources of financial information. | 3.52 | High |
| I wait for a price reduction before purchasing. | 3.55 | High |
| I follow my budget. | 3.51 | High |
| Grand Mean | 3.57 | High |

| Range of Section Means | Descriptive Level | Interpretation |
|-------------------------------|--------------------------|--|
| 4.20 – 5.00 | Very High | This means that the financial literacy and financial management practices described in the item are manifested at all times. |
| 3.40 – 4.19 | High | This means that the financial literacy and financial management practices described in the item are oftentimes manifested. |
| 2.60 – 3.39 | Moderate | This means that the financial literacy and financial management practices described in the item are sometimes manifested. |
| 1.80 – 2.59 | Low | This means that the financial literacy and financial management practices described in the item are rarely manifested. |
| 1.00 - 1.79 | Very Low | This means that the financial literacy and financial management practices described in the item are not manifested. |

The table above examined the level of financial literacy in terms of financial attitude. It described that with a grand mean of 3.57, the respondents have a high level of financial Attitude. The result implied that long-term dialysis patient has a positive mindset toward managing their finances and are likely to make informed decisions regarding their financial well-being. This could potentially lead to better financial planning and security for these individuals in the long run.

Economically disadvantaged patients often struggle financially to afford healthcare services, leading to worse outcomes such as increased emergency room visits and longer hospital stays. This financial burden can exacerbate medical bills and delays in diagnoses, resulting in poorer health outcomes (Ng et. al., (2021; Ng et. al., 2023). Additionally, the lack of access to preventative care and early interventions for economically disadvantaged patients can further contribute to the progression of chronic diseases and overall decline in health. These challenges highlight the need for affordable healthcare options and comprehensive support systems to address the disparities faced by economically disadvantaged individuals.

Table 4. Correlation between financial Literacy and Number of Years of Dialysis Treatment of the Respondent

| Variables | Pearson’s r coefficient | P - Value | Decision | Interpretation |
|---|--------------------------------|------------------|----------------------------|--------------------------|
| Financial Knowledge and Number of Years of Dialysis Treatment | .368* | .016 | Reject the null hypothesis | Significant relationship |

| | | | | |
|--|--------|------|----------------------------|--------------------------|
| Financial Behavior and Number of Years of Dialysis Treatment | .483** | .001 | Reject the null hypothesis | Significant relationship |
| Financial Attitude and Number of Years of Dialysis Treatment | .417** | .006 | Reject the null hypothesis | Significant relationship |

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Table 4 expounded on the Correlation between financial Literacy and Number of Years of Dialysis Treatment of the Respondent. With a Pearson's r Coefficient of .368* and a P-Value of .016, there is a significant relationship between Financial Knowledge and the Number of Years of Dialysis Treatment. In addition, with a Pearson's r Coefficient of .483** and a P-Value of .001, there is a significant relationship between Financial Behavior and the Number of Years of Dialysis Treatment. Likewise, with a Pearson r Coefficient of .417** and a P-Value of .006, there is a significant relationship between the Financial Attitude and the Number of Years of Dialysis Treatment.

There is a correlation between the number of years spent undergoing dialysis therapy and all three subcomponents of financial literacy. These data suggest that there is a positive correlation between the duration of dialysis treatment and the level of financial literacy among dialysis patients. This finding implies that the longer a patient undergoes dialysis therapy, the higher their financial literacy tends to be. Healthcare providers need to consider this correlation and provide appropriate financial education and support to dialysis patients.

The level of financial literacy of a dialysis patient determines their capacity to comprehend insurance coverage, navigate the intricate healthcare system, and make informed treatment decisions. Various studies have discovered that patients who possessed the physical capability to sustain employment frequently held informal or transitory positions, resulting in reduced income. Conversely, some individuals were compelled into unemployment, so exacerbating their financial predicaments. These financial challenges can further impact a dialysis patient's ability to afford necessary medications, transportation to medical appointments, and other essential healthcare expenses. Moreover, the lack of financial literacy may also lead to difficulties in understanding medical bills and insurance claims, potentially resulting in unexpected costs and an increased financial burden (Bailey et. al., 2016; Lee et. al., 2016; Cervantes et. al., 2017; Valsaraj et. al., 2014; Blogg and Hyde, 2008; Campos and Turato, 2010)

Conclusion

Financial literacy is crucial for a dialysis patient as it enables them to navigate the intricate healthcare system, comprehend insurance coverage, and make well-informed decisions

on treatment choices. Moreover, possessing financial literacy can enable patients to effectively allocate funds for essential medical costs and actively pursue financial aid options when necessary. A comprehensive grasp of financial principles can empower dialysis sufferers to proficiently handle their finances, including tasks like bill payment and debt management. Moreover, financial literacy equips patients with the necessary knowledge and abilities to strategically prepare for the future, such as setting aside funds for unforeseen medical crises.

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