

# Cost Awareness of Medical Expenses of OPD Patients in a Selected Level I Hospital in San Juan, Batangas: Input for Policy Recommendation

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**Abstract:** The rising cost of healthcare, particularly in outpatient departments (OPDs), poses significant challenges for patients who often shoulder expenses out of pocket. This study explored the cost-consciousness of OPD patients in a Level I hospital in San Juan, Batangas, and examined their awareness of medical bills. Utilizing a mixed-methods approach, the quantitative phase employed a descriptive cross-sectional design with 150 OPD patients, while the qualitative phase applied a phenomenological design through in-depth interviews with 22 participants. Findings revealed that most patients were unaware of the actual costs of their medical care, with awareness highest for medications but lowest for procedures and medical supplies. Lack of cost awareness was linked to delayed treatments, poor adherence, emotional distress, and financial strain. The study concludes that cost unawareness significantly affects patient outcomes and decision-making. It underscores the urgent need for clear price disclosure, improved billing communication, and patient education. Policy recommendations include institutionalizing transparent pricing, streamlining financial aid processes, integrating financial counseling in OPD services, and leveraging telemedicine to reduce indirect costs. A research simulacrum was also proposed to guide policy modeling and implementation. Ultimately, this study highlights the vital role of financial transparency in advancing healthcare equity and improving access to essential services.

**Keywords:** Cost-consciousness; Outpatient department; Financial transparency; Coping mechanisms; Healthcare equity

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## 1. Introduction

The rising costs of healthcare have become a pressing concern globally, with outpatient departments (OPDs) emerging as a significant point of discussion in health economics and policy. Unlike inpatient care, which has been widely studied, outpatient services often receive less attention despite their critical role in providing accessible healthcare to communities, particularly in developing countries<sup>[1]</sup>. In the Philippines, Level I hospitals serve as the

frontline facilities offering essential outpatient services to individuals from diverse socio-economic backgrounds, many of whom struggle with limited financial resources <sup>[2]</sup>.

Outpatient medical expenses vary considerably, encompassing diagnostic tests, prescribed medicines, medical supplies, and procedures, all of which contribute to patients' financial burden <sup>[3]</sup>. Studies suggest that patients' lack of cost awareness often leads to financial distress, delayed treatments, and poor adherence to prescribed regimens <sup>[4]</sup>. This is particularly evident in the Philippine healthcare system, where out-of-pocket payments remain high and continue to be a barrier to timely care, especially in rural and semi-urban areas <sup>[5]</sup>. When patients are unaware of the costs they may incur, unexpected financial shocks can lead to emotional stress, postponement of care, or reliance on alternative remedies <sup>[6]</sup>.

San Juan, Batangas, as the research locale, provides a vital context for examining these challenges in a Level I hospital setting. Understanding patients' awareness of medical expenses and their coping mechanisms is essential in identifying gaps in transparency, communication, and financial accessibility in OPD care. By focusing on the awareness of costs associated with diagnostics, medications, supplies, and procedures, this study aims to provide insights into how financial barriers shape patients' healthcare decisions and outcomes.

Ultimately, the findings will contribute to policy recommendations that promote cost transparency, strengthen patient education, and improve financial support systems. These efforts align with the broader goal of ensuring equitable and sustainable healthcare delivery in the Philippines <sup>[7]</sup>.

## **2. Research questions**

This study aimed to examine the extent of cost awareness among participants regarding their medical expenses in the OPD, focusing on the following areas:

1. What is the extent of cost awareness of the medical expenses incurred by the participants in the OPD along:
  - 1.1. Diagnostic
  - 1.2. Medicine
  - 1.3. Supplies
  - 1.4. Procedure
2. What policy recommendations and research simulacrum can be proposed based on the findings of the study?

## **3. Scope and limitation of the study**

This study seeks to examine the cost awareness of medical expenses incurred by patients in the Outpatient Department (OPD) of a selected Level I hospital in San Juan, Batangas. It focuses on understanding the extent of patients' awareness of various components of medical expenses, including diagnostic tests, medicines, supplies, and procedures. Additionally, the study aims to identify potential policy recommendations to address challenges faced by OPD patients in managing healthcare costs.

The study included OPD patients from the selected Level I hospital who had sought treatment at least once within the past three years and were willing to participate. Data were collected through a structured questionnaire and interviews, focusing on patients' self-reported awareness of medical costs.

The investigation specifically examined awareness of costs related to diagnostic tests, medicines, supplies, and procedures, and how this awareness influences healthcare decisions. While some information regarding coping

mechanisms for managing financial impact was collected, the study did not explore these strategies in depth.

Several limitations are acknowledged. Data were collected from a limited number of Level I hospitals in San Juan, Batangas, and may not fully represent OPD patients' experiences in other regions. Self-reported data are subject to recall bias or personal perceptions of costs, and participants may not have a complete understanding of the breakdown of their medical bills. The cross-sectional design captures only a snapshot of experiences at the time of data collection, limiting insights into long-term trends or changes in cost awareness.

The study did not include the perspectives of healthcare providers or hospital administrators regarding medical service costs or existing policies that influence cost transparency. Additionally, broader socioeconomic factors such as income levels or insurance coverage, which may affect patients' ability to afford care, were not examined.

Finally, while the findings inform policy recommendations aimed at improving cost transparency and financial assistance for OPD patients, the implementation of these recommendations falls outside the scope of this study. Nonetheless, the study provides valuable input to guide potential policy changes to enhance patient access to healthcare services, improving cost transparency and financial assistance for OPD patients.

## **4. Literature review**

This literature review presents key related literature and studies relevant to the study that provide the researcher with sufficient ideas and insights that served as a frame of reference and the insights that led to the conceptualization and formulation of the research.

### **4.1. Cost awareness of medical expenses**

Awareness of healthcare costs plays a vital role in shaping patient decision-making, particularly in outpatient settings where most expenses are paid out-of-pocket. In the Philippine context, many OPD patients lack clear knowledge of the costs associated with diagnostics, medications, procedures, and supplies. This lack of transparency often leads to financial strain, delayed treatment, or even avoidance of essential care. A baseline survey conducted across primary care sites in the country highlighted that out-of-pocket costs remain a major concern, especially for low-income patients, and these costs directly influence health-seeking behavior<sup>[8]</sup>.

Among the four major categories of medical costs, medications were found to have the highest awareness, while procedures and supplies had the lowest. This may be attributed to the fact that patients frequently purchase medicines directly from pharmacies, making prices more visible, whereas hospital-billed procedures and supplies are often bundled, making them harder to understand<sup>[9]</sup>. Without clear cost breakdowns, patients are left uncertain about their financial obligations, contributing to confusion and mistrust in the healthcare system. This underscores the importance of transparent billing systems to ensure patients can make informed healthcare decisions.

### **4.2. Policy recommendations**

The findings strongly suggest the need for policies promoting financial transparency and patient education. Hospitals should implement clear, itemized billing systems that break down costs for diagnostics, procedures, medications, and supplies. Equally important is the integration of financial counseling into OPD services, enabling patients to better understand their options and prepare for potential expenses. Previous research emphasizes that patient empowerment through financial literacy contributes to more informed healthcare choices and greater

satisfaction with medical services<sup>[9]</sup>.

Telemedicine also presents an innovative solution to reducing indirect costs such as transportation and lost wages. In the Philippines, teleconsultation fees range widely, but studies show that many patients perceive online consultations as more convenient and less expensive compared to in-person visits<sup>[10]</sup>. Streamlining government financial assistance, expanding PhilHealth coverage for outpatient services, and embedding mental health support to address financial stress are also crucial recommendations. Collectively, these strategies can reduce financial barriers, improve healthcare access, and foster greater trust in the health system.

### 4.3. Research simulacrum

This study also proposed the use of a research simulacrum as a tool for modeling the potential effects of policy changes. A research simulacrum is essentially a mock-up or simulation of real-world research processes, allowing policymakers and researchers to test the feasibility and projected impact of interventions before implementation. For example, simulacrum models have been used in education and clinical training to help stakeholders understand the outcomes of certain practices in a controlled environment<sup>[11]</sup>. Applying this concept in healthcare cost awareness can demonstrate how pricing transparency or financial counseling might influence patient decision-making and outcomes.

The use of research simulacrum also offers advantages in training future healthcare researchers, enhancing their ethical decision-making, and supporting skill development. Emerging technologies such as virtual reality can make these simulations more immersive and realistic, providing deeper insights into patient behavior<sup>[12–13]</sup>. However, challenges remain, such as the resource requirements for developing high-fidelity simulacra and the limited evidence on their long-term effectiveness<sup>[14–15]</sup>. Despite these challenges, simulacrum-based approaches can serve as valuable tools for both research and policy design, offering a proactive way to anticipate the effects of proposed interventions on real-world healthcare delivery.

## 5. Research design

### 5.1. Study design

This study employed a mixed-methods approach to examine the medical expenses incurred by Outpatient Department (OPD) patients in a selected Level I hospital located in San Juan, Batangas. The research incorporated a descriptive cross-sectional research design for the quantitative component, which focused on determining the extent of cost awareness among OPD patients regarding diagnostic tests, medicines, supplies, and procedures.

The quantitative component of the study adopted a descriptive cross-sectional research design, which is particularly well-suited to assess the awareness levels of patients concerning their medical expenditures at a specific point in time. Cross-sectional research was defined as a study that collects data at a single point in time, providing a snapshot of the participants' conditions, attitudes, or behaviors<sup>[16]</sup>. This method allowed for the measurement of various variables, such as the extent of cost awareness in areas like diagnostic tests, medicines, supplies, and procedures, and is commonly used when researchers aim to describe and quantify the characteristics of a population.

Cross-sectional research designs were considered efficient as they allowed the researcher to collect data from a large number of participants within a relatively short time frame<sup>[17]</sup>. This was especially important for understanding current conditions regarding healthcare expenses. In this study, retrospective data from the years



2022, 2023, and 2024 were gathered to explore how OPD patients in San Juan, Batangas, are aware of the costs of various medical services. By gathering data from a wide range of patients, the study provided critical insights into how factors like socio-economic status, insurance coverage, and frequency of healthcare use may affect cost awareness and financial decision-making. The descriptive nature of the study helps present a clear picture of cost awareness among OPD patients, providing information that can be used by healthcare providers and policymakers to improve cost transparency and healthcare affordability.

In essence, the use of a descriptive cross-sectional method ensures a comprehensive examination of the medical expenses of OPD patients. This approach allowed for the quantification of cost awareness across key areas of healthcare services. By focusing on measurable variables, this study provides a solid foundation for informing policies and strategies aimed at enhancing transparency and improving healthcare affordability and accessibility.

## **5.2. Data collection**

The data collection for this study followed a structured process that combined both quantitative and qualitative methods to ensure reliability and validity. For the quantitative component, survey questionnaires were distributed to 150 OPD patients who had visited within the past three years. The survey measured awareness of costs related to diagnostic tests, medicines, supplies, and procedures, with participants completing the forms in approximately 10 to 15 minutes. Prior to answering, the patients were informed about the study, and their consent was obtained. Assistance was provided to clarify questions, and all responses were reviewed and securely stored. To maintain clarity and appropriateness, the survey tool was pretested and refined before full implementation.

For the qualitative component, in-depth semi-structured interviews were conducted with 20 participants selected from the survey pool who volunteered to share their personal experiences. The interviews explored the emotional and financial burdens of medical expenses, lasted 30 to 45 minutes each, and were conducted in private to ensure confidentiality. All sessions were audio-recorded with consent and transcribed for analysis. Ethical considerations were prioritized throughout the process, including informed consent, confidentiality, and the option to withdraw at any time.

## **5.3. Instrument**

This study utilized two primary instruments for data collection: a survey questionnaire for the quantitative component and an interview guide for the qualitative component. The survey questionnaire was structured to assess OPD patients' awareness of medical expenses, with sections covering diagnostic tests, medicines, supplies, and procedures, and employed Likert scales to measure the extent of their knowledge and perceptions. These instruments enabled the collection of both measurable data and rich personal narratives, ensuring a comprehensive understanding of OPD patients' cost awareness and financial experiences.

## **5.4. Discussion**

This study presents the discussion and interpretation of data gathered from the respondents through structured interview questions.

# **6. Extent of cost awareness of the medical expenses incurred in the OPD**

## **6.1. Diagnostic**

Understanding the cost awareness of medical expenses among outpatient department (OPD) patients is crucial

for assessing financial accessibility and healthcare affordability. Rising medical costs have increasingly burdened patients, particularly those undergoing diagnostic services. Patients generally demonstrate a moderate level of awareness regarding diagnostic costs, with the highest-rated items reflecting weighted means between 3.20 and 3.23, interpreted as “Aware.” This indicates that while patients have a functional understanding of diagnostic-related expenses, gaps remain that could compromise timely and informed decision-making.

The top-rated item, “I can identify the differences in costs between various diagnostic tests” (WM = 3.23, SD = 0.74), illustrates that patients recognize cost variations among X-rays, CT scans, and laboratory tests. This awareness reflects a positive trend, likely driven by digital healthcare records and public campaigns promoting transparency. Yet, the variability in responses suggests uneven comprehension. Diagnostic procedures often represent a significant cost component in outpatient services, and unawareness can lead to financial strain and avoidance of necessary tests <sup>[20]</sup>.

The second-highest-rated item, “I have been informed if there are additional charges for diagnostic tests” (WM = 3.22, SD = 0.79), highlights moderate but inconsistent communication between healthcare providers and patients. While some patients receive adequate information about extra charges, others remain unaware. Fragmented communication contributes to patient dissatisfaction and diminished trust in medical institutions <sup>[21]</sup>. Implementing financial counseling and including cost discussions in routine consultations can improve understanding and patient confidence <sup>[22]</sup>.

The third item, “I understand if there are discounts or subsidies available for diagnostic test costs” (WM = 3.20, SD = 0.74), demonstrates awareness of financial assistance, though suboptimal. Programs like PhilHealth or local government subsidies are available, yet patients often remain unaware, leading to delayed or foregone care <sup>[23]</sup>. Cost awareness in diagnostics not only informs patients but also influences healthcare-seeking behavior and treatment adherence <sup>[24]</sup>.

However, lower scores on items such as “I know whether the diagnostic tests are covered by my insurance or not” (WM = 2.76, SD = 0.95) indicate gaps in understanding insurance coverage, a critical factor in out-of-pocket expenses. Many patients either underutilize or postpone necessary diagnostics due to uncertainty about reimbursement <sup>[25]</sup>. Similarly, comprehension of cost calculation methods (WM = 2.79, SD = 0.92) and awareness of expedited service fees (WM = 2.97, SD = 0.89) remain limited, reflecting systemic issues in cost transparency and patient financial literacy <sup>[26]</sup>. The composite mean of 3.06 (SD = 0.64) suggests a general, moderate level of awareness, emphasizing the need for institutionalized cost discussions, patient education, and standardized pricing mechanisms <sup>[27]</sup>.

## 6.2. Medicine

Medication expenses form a significant part of out-of-pocket costs for OPD patients, particularly those with chronic or multiple conditions. Awareness of drug costs, including brand versus generic options, insurance coverage, and discounts, is essential for informed decision-making. This shows that patients have relatively high awareness of price differences between branded and generic medications (WM = 3.28, SD = 0.72). This suggests that national campaigns promoting generics have begun to influence patient decisions, enabling more cost-effective choices and improved adherence <sup>[28]</sup>.

The second-highest awareness relates to the duration of medication use and total cost (WM = 3.11, SD = 0.84), showing that patients consider not only immediate prices but also long-term financial implications. Knowledge of medication costs over time supports better planning and adherence <sup>[29]</sup>. Awareness of available discounts or

government programs (WM = 3.04, SD = 0.85) remains moderate and uneven, reflecting gaps in communication and accessibility of assistance programs <sup>[30]</sup>.

The lowest-rated items, including insurance coverage (WM = 2.69, SD = 1.03), availability at pharmacies (WM = 2.69, SD = 0.98), and awareness of alternatives (WM = 2.72, SD = 0.95), indicate insufficient comprehension of critical aspects of medication affordability. Over-the-counter medication costs (WM = 2.85, SD = 0.92) also highlight a limited understanding <sup>[31]</sup>. The composite mean of 2.93 (SD = 0.70) reflects moderate awareness but reveals that many patients possess only partial understanding, which can lead to poor financial planning, nonadherence, and unnecessary financial strain <sup>[32]</sup>. Enhancing patient education, clear communication, and structured cost discussions are therefore essential to improve medication-related decision-making <sup>[33]</sup>.

### 6.3. Supplies

Medical supplies, though often considered minor, contribute significantly to overall OPD expenses. Patients demonstrate moderate awareness, with the highest-rated item being “I understand the overall impact of supply costs on my total medical expenses” (WM = 3.20, SD = 0.81). This suggests recognition that even small items like syringes, cotton, or diagnostic kits can accumulate and impact overall billing <sup>[34]</sup>.

However, lower-rated items reveal gaps in awareness. “I know whether I will pay for the medical supplies or if it is covered by my insurance” (WM = 2.71, SD = 0.99) and “I am knowledgeable about the medical supplies used for procedures and their costs” (WM = 2.83, SD = 0.93) indicate limited transparency and communication <sup>[35]</sup>. This lack of clarity can increase patient anxiety and reduce trust in healthcare institutions <sup>[36]</sup>. Standardized billing, real-time disclosure, and patient education are critical strategies to improve supply cost awareness <sup>[37]</sup>. The composite mean of 2.96 (SD = 0.70) highlights a moderate but incomplete understanding among patients.

### 6.4. Procedure

Procedural costs in outpatient settings involve multiple components such as anesthesia, additional tests, and professional fees. Patients have moderate awareness of procedural costs, with the highest-rated item being “I have been informed if there are additional charges related to a procedure” (WM = 3.22, SD = 0.78). Awareness of layered costs reduces “bill shock” and improves adherence to medical advice <sup>[38]</sup>.

Awareness of government programs or discounts (WM = 3.21, SD = 0.79) and potential fees for complications (WM = 3.15, SD = 0.78) further suggests a developing literacy about financial support and risk-related costs <sup>[39]</sup>. Yet, lower-rated items like insurance coverage (WM = 2.83, SD = 0.99) and breakdown of specific procedure costs (WM = 2.86, SD = 0.89) indicate insufficient transparency and communication, which may lead to delayed procedures or financial distress <sup>[40]</sup>. The composite mean of 3.00 (SD = 0.67) confirms a moderate awareness level, highlighting the need for institutionalized patient counseling, standardized pricing lists, and digital tools for cost transparency <sup>[41]</sup>.

## 7. Proposed policy recommendations and research simulacrum

### 7.1. Policy recommendations: Transparent cost disclosure in outpatient departments (OPD)

The dissemination of transparent costs in outpatient departments (OPD) has gained increased attention as stakeholders recognize its crucial role in patient participation, informed decision-making, and health outcomes. A lack of clarity regarding medical expenses often leaves vulnerable patients unprepared and deprived of their rights to make informed healthcare decisions <sup>[42]</sup>. Promoting transparency in healthcare pricing facilitates equitable access

and affordability, serving as a catalyst for the realization of sustainable development goals (SDGs) <sup>[43]</sup>. With rising medical costs and increasingly complex insurance structures, providing direct and comprehensive cost information enables patients to actively participate in their care <sup>[44]</sup>.

The revised policy recommendation seeks to establish a **robust and standardized framework** for the transparent disclosure of outpatient service costs. The objective is to ensure that all OPDs provide comprehensive, easily accessible, and understandable price information. This includes not only the absolute cost of services but also the potential out-of-pocket expenses depending on different insurance coverage scenarios <sup>[45]</sup>. Ensuring clarity and usability is critical to enhancing patient understanding, engagement, and compliance.

The standardized framework should align with effective budgeting practices <sup>[46]</sup>. A calibrated approach ensures OPDs have the necessary technological infrastructure, trained personnel, and resources to implement cost disclosure efficiently. Additionally, the framework must account for variations in services and pricing across OPDs, promoting a level playing field while maintaining accuracy and integrity in cost reporting <sup>[47]</sup>.

The projected budget for policy implementation covers several components, including: Investment in IT systems to consolidate and communicate service costs across facilities. Development of a digital platform that provides comprehensive price information. Training programs for OPD staff to ensure adherence to disclosure standards. Public information campaigns to educate patients on effectively using cost information <sup>[48]</sup>.

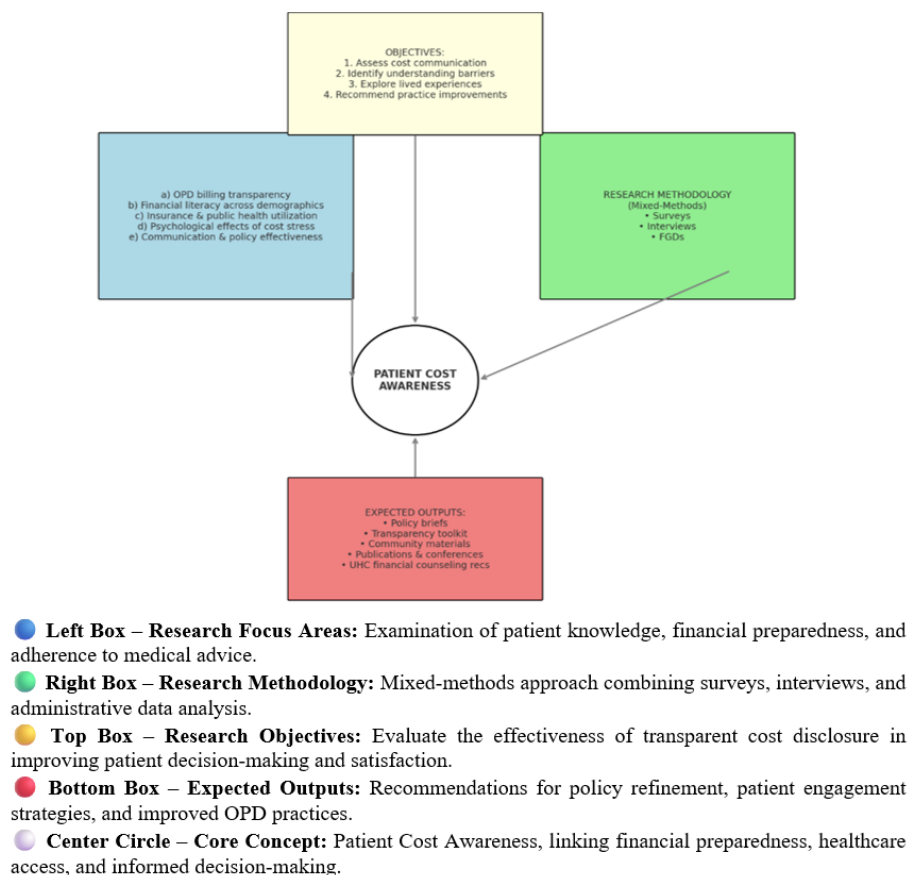
A **gradual implementation timeline** is recommended. Pilot programs in selected OPDs will allow testing of the framework and technology, followed by evaluation before wider rollout. This iterative approach facilitates refinement based on real-world feedback, ensuring effective, sustainable adoption <sup>[49]</sup>.

The success of the policy will rely on clearly defined **Key Result Areas (KRAs)**, including: Patient satisfaction, assessed through structured questionnaires evaluating clarity of cost information and overall experience. Compliance rates of OPDs in providing timely and accurate cost disclosures <sup>[50]</sup>.

A comprehensive **assessment framework** will integrate both qualitative and quantitative methods, including pre- and post-implementation surveys, focus group discussions, and analysis of administrative data to determine changes in patient behavior and satisfaction <sup>[51]</sup>. Regular evaluation ensures alignment with public health objectives, while feedback mechanisms allow continuous improvement, reinforcing the culture of transparency in OPD cost disclosure <sup>[52]</sup>.

## 7.2. Proposed research simulacrum

The proposed research simulacrum illustrates the integration of patient cost awareness with policy evaluation, structured as shown in **Figure 1**.



**Figure 1.** Proposed research simulacrum

This framework provides a **comprehensive roadmap** for both the implementation and evaluation of transparent cost disclosure policies, ensuring that patients are empowered, healthcare access is equitable, and resource allocation is optimized <sup>[53]</sup>.

## 8. Conclusion

The following conclusions were drawn based on the highlights of the findings.

Patients in the outpatient department demonstrated a general awareness of medical expenses, but this awareness was often limited to surface-level knowledge. Many remained unsure about cost breakdowns, insurance coverage, and billing computations, indicating a need for deeper cost comprehension.

The findings supported the need for concrete policy interventions and further research on patient cost awareness and financial empowerment. The proposed recommendations and research simulacrum offered practical and sustainable solutions to promote transparent, inclusive, and financially informed outpatient care.

## 9. Implications of the results/findings to profession and self-actualization

The results of this study carry significant implications for healthcare professionals, particularly those working in outpatient settings. The findings emphasize the vital role of health professionals—not only as providers of clinical care but also as facilitators of financial transparency and patient education. Nurses, physicians, and administrative

staff may need to integrate cost-related communication into their routine interactions with patients, ensuring that individuals are fully informed of the expenses tied to diagnostics, medications, procedures, and supplies. This shift calls for a more holistic approach to patient care, one that acknowledges the financial realities that influence treatment decisions and adherence.

Professionally, the study highlights the importance of developing competencies in health financial literacy, empathetic communication, and system navigation. Healthcare workers who possess these skills are better positioned to support their patients' needs, improve health outcomes, and contribute to more ethical, patient-centered service delivery. For administrators and policymakers, the findings reinforce the need to establish institutional policies and programs that advocate for cost transparency and equitable access to care.

On a personal level, the research journey has fostered a deeper understanding of the socio-economic challenges that patients face in accessing basic medical services. It has reinforced the value of compassion, accountability, and responsiveness in healthcare practice. This awareness supports self-actualization by aligning professional responsibilities with a meaningful purpose—to empower patients not only through clinical treatment but also through informed decision-making. The experience serves as a reminder that health equity is not just about providing services but also about equipping people with the knowledge and support to access them responsibly and confidently.

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