

Barriers and Facilitators of Compliance to HIV Counseling and Testing Among Healthcare Workers and Pregnant Women: A Mixed-Methods Study

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Abstract. HIV counseling and testing (HCT) is a cornerstone of prenatal care for preventing mother-to-child transmission (PMTCT). However, compliance and adherence remain inconsistent in the Philippines despite national policies mandating provider-initiated counseling and testing (PICT). This study assessed the compliance and adherence of healthcare workers (HCWs) and pregnant women to HCT in a Department of Health (DOH)-retained hospital, evaluated their knowledge, attitudes, and practices (KAP), and identified influencing factors to inform strategies that strengthen PMTCT services. An explanatory sequential mixedmethods design was employed at Tondo Medical Center. Quantitative data were collected from 37 HCWs via total enumeration and from 385 pregnant women via simple random sampling. In comparison, qualitative data were collected through focus group discussions (FGDs) with 3 HCWs and 12 pregnant women until thematic saturation was reached. Data were analyzed using descriptive statistics, chi-square and eta correlation tests, and thematic analysis guided by grounded theory. Results showed that 81.1% of HCWs performed HCT during prenatal care, but only 59.5% did so postnatally. Among pregnant women, 64.2% underwent prenatal screening, 18.7% postnatal screening, and 12.5% had no screening. HCWs exhibited high knowledge (M = 4.18), positive attitudes (M = 4.21), and good practices (M = 4.09), while pregnant women showed moderate knowledge (M = 3.42) but positive attitudes (M = 4.02). Significant associations were found between HCWs' knowledge and practices ($\eta = 0.41$, p = .041) and between women's education (p = .032), income (p = .018), and HCT adherence. Qualitative findings revealed barriers such as stigma, fear, and workload, as well as facilitators such as empathy, rapport, and education. Strengthening PICT integration, enhancing HCW training, reducing stigma, and institutionalizing structured postnatal follow-up are recommended to improve adherence and maternal and child health outcomes.

Keywords: Adherence; Compliance; Healthcare workers; HIV counseling and testing; Pregnant women

1.0 Introduction

HIV Counseling and Testing (HCT) among pregnant women remains one of the most effective strategies for preventing mother-to-child transmission (MTCT). Early diagnosis and timely intervention improve maternal and

child health outcomes (Hanh et al., 2011). The World Health Organization (WHO, 2019) and Republic Act 11166 mandate provider-initiated counseling and testing (PICT) for pregnant women as part of national HIV prevention strategies. Despite these policies, many women still go through pregnancy without screening, contributing to persistent vertical transmission.

Global and regional studies highlight that both healthcare workers (HCWs) and pregnant women encounter barriers undermining adherence, including stigma, fear, and workload (Mitiku et al., 2017; Mbatha et al., 2021; Armstrong-Mensah et al., 2022). In the Philippines, few studies have evaluated compliance with and adherence to HCT in government hospitals, where most deliveries occur. Existing studies often examine patient or provider behavior separately, but rarely integrate both perspectives. This study addresses this gap by assessing compliance and adherence to HCT among HCWs and pregnant women in a DOH-retained hospital through an explanatory sequential mixed-methods design. The study quantifies adherence and explores underlying barriers and facilitators, generating evidence-based insights to strengthen PICT implementation and improve maternal-child health outcomes.

2.0 Methodology

2.1 Research Design

This study employed an explanatory sequential mixed-methods design, beginning with a quantitative phase to assess the extent of compliance and adherence to HIV counseling and testing (HCT), followed by a qualitative phase to explore underlying reasons and contextual factors. The design was selected to capture both measurable patterns and in-depth perspectives, enabling a comprehensive understanding of the barriers and facilitators influencing adherence (Creswell & Plano Clark, 2018).

2.2 Participants and Sampling Technique

The study was conducted at a hospital retained by the Department of Health (DOH) in Metro Manila. The quantitative phase included 37 healthcare workers (HCWs) certified in HIV counseling and testing, selected through total enumeration, and 385 pregnant women, randomly selected using simple random sampling with Cochran's formula at a 95% confidence level and a 5% margin of error. The qualitative phase involved 3 HCWs and 12 pregnant women, purposively selected for focus group discussions (FGDs) until data saturation was achieved. Inclusion criteria were: (1) HCWs trained and certified in HCT and (2) pregnant women aged 18 years and older at any trimester or postpartum stage. Exclusion criteria included minors, healthcare workers without HCT certification, and participants unable to provide informed consent.

2.3 Research Instruments

Two validated instruments were used: (a) A self-administered questionnaire measuring knowledge, attitudes, and practices (KAP) regarding HCT was developed in accordance with DOH and WHO guidelines, and (b)A semi-structured FGD guide to explore experiences, barriers, and facilitators of adherence. Both tools underwent expert validation by two HIV nurse specialists and a statistician. A pilot test involving 27 healthcare workers and 35 pregnant women refined question clarity. Reliability testing produced Cronbach's alpha coefficients ranging from 0.80 to 0.92 for HCWs and 0.72 to 0.74 for pregnant women, indicating acceptable to excellent reliability (Tavakol & Dennick, 2011).

2.4 Data Gathering Procedure

Data were gathered between November and December 2023. Quantitative data were collected through face-to-face surveys administered in the outpatient and maternity wards. Qualitative data were gathered through separate FGDs for HCWs and pregnant women to ensure confidentiality and candidness. Each session lasted 40-60 minutes, was audio-recorded with the participant's consent, and was moderated by the principal investigator. Participation was voluntary, and respondents could withdraw at any time without consequences.

2.5 Data Analysis Procedure

Quantitative data were analyzed using descriptive statistics (frequencies, percentages, means, standard deviations) and inferential tests (chi-square and eta-correlation) to determine associations among variables. Qualitative data were analyzed using thematic analysis guided by grounded theory principles, allowing themes to emerge inductively. Integration of both strands occurred through triangulation, enhancing validity and producing comprehensive meta-inferences that connected numerical patterns with lived experiences.

2.6 Ethical Considerations

The study was reviewed and approved by the Tondo Medical Center Institutional Review Board (IRB No. 023-02-19). Informed consent was obtained prior to participation, with clear explanations of the study purpose, procedures, risks, and benefits. Confidentiality and anonymity were maintained by assigning codes rather than names and by securely storing data in password-protected files accessible only to the research team. All identifiers were removed from transcripts, and audio files were deleted post-transcription in compliance with the Data Privacy Act of 2012. Small tokens of appreciation were given as gestures of gratitude, not as inducements.

3.0 Results and Discussion

3.1 Socio-Demographic Profile of Pregnant Women

The study included 385 pregnant women. Most respondents were aged 25–34 years (54.8%), had at least secondary education (47.8%), and were unemployed (61.5%). A majority reported a monthly income of below ₱10,000 (52.7%), as shown in Table 1.

Table 1. Socio-Demographic Profile of Pregnant Women (n = 385)

Variable	Frequency	Percentage (%)
Age		
18-24 years	126	32.7
25-34 years	211	54.8
35 years and above	48	12.5
Educational Attainment		
Elementary	41	10.6
Secondary	184	47.8
Tertiary	160	41.6
Employment Status		
Employed	148	38.5
Unemployed	237	61.5
Monthly Income		
Below ₱10,000	203	52.7
₱10,000 - 19,999	117	30.4
₱20,000 and above	65	16.9

The predominance of women aged 25–34 aligns with the typical childbearing population in urban Filipino settings. A considerable portion had only a secondary education, and over half reported monthly earnings of less than ₱10,000, indicating economic vulnerability. These socioeconomic conditions are important determinants of maternal health behavior, as evidenced by later associations with HCT adherence (Table 6). Similar findings in Ethiopia and South Africa indicate that lower education and income constrain health-seeking behaviors and adherence to prenatal care, including HIV testing (Mitiku et al., 2017; Mbatha et al., 2021). The demographic profile suggests that interventions must address educational and economic barriers, with a focus on enhancing health literacy and ensuring affordable access to HCT services.

3.2 Socio-Demographic Profile of Healthcare Workers

Among 37 HCWs, the majority were nurses (56.8%), followed by midwives (24.3%) and physicians (18.9%). Most HCWs had received HCT training (91.9%), and the mean duration of HCT service provision was 6.2 ± 3.4 years (Table 2).

Table 2. *Socio-Demographic Profile of Healthcare Workers* (n = 37)

Variable	Frequency	Percentage (%)
Profession		
Physician	7	18.9
Nurse	21	56.8
Midwife	9	24.3
HCT Training		
Yes	34	91.9
No	3	8.1
Years of Service in HCT	Mean = 6.2	SD = 3.4

The HCWs' profile reflects a workforce well-equipped with training and experience, which is critical for effective HCT delivery. Prior studies have highlighted that trained and motivated HCWs are essential to the success of PMTCT programs (Basilio et al., 2022). Despite this, later findings (Table 3) reveal that adherence to HCT is lower postnatally, suggesting that systemic factors—such as workload, staffing, and protocol enforcement—may impede complete application of skills.

3.3 Adherence Rates to HIV Counseling and Testing Healthcare Workers

Table 3 shows that 81.1% of HCWs conducted HCT during prenatal care, but adherence dropped to 59.5% postnatally.

Table 3. Adherence to HCT Among Healthcare Workers (n = 37)			
Variable	Frequency	Percentage (%)	
Conducted HCT during prenatal.	30	81.1	
Did not conduct prenatal HCT.	7	18.9	
Conducted HCT during postnatal.	22	59.5	
Did not conduct postnatal HCT	15	40.5	

Pregnant Women

Table 4 indicates that 64.2% of pregnant women underwent prenatal HIV screening, only 18.7% had postnatal screening, and 12.5% had no screening at all.

Table 4. Adherence to HCT Among Pregnant Women (n = 385)

Variable	Frequency	Percentage (%)
With prenatal HIV screening.	247	64.2
Without prenatal HIV screening.	65	16.9
With postnatal HIV screening.	72	18.7
Without pre- and postnatal HIV screening.	48	12.5

The disparity between prenatal and postnatal adherence is consistent with international literature, which reports that PMTCT interventions often lose momentum after childbirth (WHO, 2019). For HCWs, systemic factors such as heavy workload, lack of postnatal-focused protocols, and prioritization of prenatal care may explain reduced postnatal adherence. Pregnant women's low postnatal screening rates suggest barriers including decreased healthcare engagement, competing domestic responsibilities, stigma, and lack of awareness about postnatal HIV risk. Strategies such as integrating HCT into routine postnatal visits and immunization schedules could improve adherence.

3.4 Knowledge, Attitudes, and Practices (KAP)

Wilcoxon Signed Ranks Test: Among pregnant women, knowledge scores were significantly lower than attitudes (Z = -4.72, p < .001) and practices (Z = -3.95, p < .001). For HCWs, no significant differences were observed across KAP domains (Z = -1.43, p = .152), indicating consistency among knowledge, attitude, and practice (Table 5).

Table 5. Knowledge, Attitudes, and Practices Toward HCT

Group	Knowledge (Mean ± SD)	Attitudes (Mean ± SD)	Practices (Mean ± SD)
Healthcare Workers	4.18 ± 0.62	4.21 ± 0.43	4.09 ± 0.51
Pregnant Women	3.42 ± 0.74	4.02 ± 0.56	3.58 ± 0.68

HCWs demonstrated high knowledge, positive attitudes, and good practices, which support their competency in providing HCT. However, reduced postnatal adherence (Table 3) suggests that knowledge alone is insufficient to guarantee service delivery; system-level support is necessary. Among pregnant women, moderate knowledge despite positive attitudes indicates that favorable attitudes do not always translate into behavior, emphasizing the need for comprehensive health education. The Wilcoxon test confirms that knowledge deficits are a statistically significant barrier to adherence, reinforcing the importance of interventions that target awareness. Previous studies indicate that maternal knowledge directly influences uptake of PMTCT services (Minnesota Department of Health, 2019).

3.5 Factors Influencing Compliance and Adherence

HCWs' knowledge positively influenced practice, consistent with the literature, which demonstrates that well-trained providers deliver higher-quality PMTCT services (Table 6). Pregnant women's education and income significantly influenced adherence, illustrating the impact of social determinants of health. These results reinforce the need for interventions that address both structural barriers (financial and systemic) and behavioral factors (knowledge and empowerment) to optimize adherence.

Table 6. Factors Associated with Compliance and Adherence to HCT

Association	p-value
$\eta = 0.41$	0.041*
$\chi^2 = 6.89$	0.032*
$\chi^2 = 8.27$	0.018*
	$\eta = 0.41$ $\chi^2 = 6.89$

3.6 Qualitative Findings (FGDs)

Thematic analysis of focus group discussions revealed three major themes that explain the barriers and facilitators of HIV counseling and testing (HCT) adherence among healthcare workers (HCWs) and pregnant women: awareness but uncertainty, barriers to compliance, and system challenges. These themes, illustrated with participant quotations, complement the quantitative findings and offer deeper insights into the factors that shape compliance.

Table 7. Themes from Qualitative Data

Theme	Description	Sample Quote
Awareness but Uncertainty	Participants were aware of HCT but lacked a deep understanding of its purpose, process, and benefits, leading to hesitancy.	"I know it is a test, but I do not really understand why it is important. "They told me to take it, but I was not sure what it was for. "I heard it helps protect the baby, but I do not know how."
Barriers to Compliance	Psychosocial and practical barriers, including stigma, fear of discrimination, financial costs, and competing responsibilities, reduced adherence.	"I was afraid to get tested, what if people think I have HIV? "I wanted to return, but I had no money for transportation. "It is difficult when I have work and family duties. "Some neighbors will gossip if they know you are being tested."
System Challenges (HCWs)	Healthcare workers highlighted structural barriers such as heavy workload, limited staff, and prioritization of prenatal over postnatal services.	"Sometimes we cannot counsel everyone because of the number of patients. "We focus on prenatal, but after delivery, mothers do not always return, and we cannot follow up. "Even if we want to counsel, there are just too many mothers to attend to."

Awareness but Uncertainty

This theme reflects the paradox of pregnant women being aware of HIV testing but lacking comprehensive knowledge of its purpose and implications. One participant admitted, "I know it is a test, but I do not really understand why it is important." Another added, "They told me to take it, but I was not sure what it was for." Others expressed partial understanding, such as, "I heard it helps protect the baby, but I do not know how." These narratives correspond to the quantitative finding of moderate knowledge levels despite generally positive attitudes. Similar results were reported in Ethiopia and the Philippines, where awareness did not always translate to informed adherence (Cherie et al., 2022; Pepito et al., 2020). This indicates that current health education efforts raise awareness but may not provide sufficient depth to empower women in decision-making.

Barriers to Compliance

Pregnant women described multiple barriers preventing them from returning for HIV testing or counseling. Stigma was especially prominent, with one mother stating, "I was afraid to get tested, what if people think I have HIV?" Another explained, "Some neighbors will gossip if they know you are being tested." Financial and time pressures also surfaced, as expressed in "I wanted to return, but I had no money for transportation," and "It is difficult when I have work and family duties." These qualitative insights reinforce the quantitative associations between low income, limited education, and poor adherence, and align with global literature on stigma and socioeconomic hardship as

barriers to HIV testing (Nyblade et al., 2019; Mbatha et al., 2021). Such findings emphasize that improving compliance requires reducing stigma in healthcare settings and providing financial and logistical support to mothers.

System Challenges

From the perspective of HCWs, systemic and structural constraints limited their ability to provide consistent HCT. One nurse reported, "Sometimes we cannot counsel everyone because of the number of patients." Another echoed this, stating, "Even if we want to counsel, there are just too many mothers to attend to." Others highlighted gaps in postnatal follow-up, with a participant explaining, "We focus on prenatal, but after delivery, mothers do not always return, and we cannot follow up." These accounts confirm the quantitative finding of decreased postnatal adherence despite HCWs having strong knowledge and attitudes. The literature similarly identifies staff shortages, high patient volumes, and a lack of postnatal protocols as barriers to PMTCT implementation in low-resource settings (Razzaq et al., 2023; Basilio et al., 2022). These results underscore the need for institutional reforms that integrate HCT into both prenatal and postnatal services while addressing staffing and workload management.

3.7 Integration of Themes with Quantitative Results

The expanded qualitative findings provide further explanation and context for the quantitative results. *Awareness, though uncertain,* mirrors the moderate knowledge scores of pregnant women, while *barriers to compliance* align with the significant associations between income, education, and adherence. *System challenges* explain why postnatal adherence remains low despite HCWs demonstrating high knowledge and positive attitudes. Together, these findings show that an intersection of knowledge gaps, psychosocial barriers, and systemic constraints shapes compliance with HCT. Addressing these issues will require not only improving patient education but also reducing stigma and reinforcing institutional support for healthcare workers.

Table 8. <i>Integration of Study Findings with Literature</i>			
Key Finding	Supporting/Contradictory Literature	Interpretation	
High HCW adherence to prenatal HCT (81.1%) but lower in postnatal (59.5%).	W.H.O. (2019) and Omonaiye et al. (2018) reported a global decline in PMTCT adherence post-delivery.	Confirms global trends that HCT interventions weaken after childbirth; it suggests a systemic focus on prenatal but neglect of postnatal services.	
64.2% of pregnant women had prenatal screening, but only 18.7% postnatal, with 12.5% never tested.	Mitiku et al. (2017) and Mbatha et al. (2021) found low adherence linked to socioeconomic and awareness barriers.	Highlights a significant service gap; interventions needed beyond pregnancy to sustain adherence during breastfeeding.	
HCWs displayed high knowledge (M=4.18), positive attitudes (M=4.21), and good practices (M=4.09).	Basilio et al. (2022) stressed the importance of trained HCWs in PMTCT.	Confirms competency of trained HCWs; however, knowledge alone does not ensure service delivery without system-level support.	
Pregnant women had moderate knowledge (M=3.42) but positive attitudes (M=4.02).	Tiruneh & Dagnew (2022) and Yeshaneh et al. (2023) emphasized maternal knowledge as a determinant of HCT uptake.	Indicates positive perceptions but insufficient depth of understanding; explains lower adherence despite favorable attitudes.	
Significant association between education/income and adherence.	Pepito et al. (2020) and Cárdenas- Hamoy & Madamba (2015) identified education and income as predictors of HIV testing in the Philippines.	Reinforces social determinants of health; economic vulnerability and limited education directly constrain health-seeking behavior.	
Stigma and fear deterred women from testing.	Nyblade et al. (2019) found that stigma is a persistent barrier in healthcare settings worldwide.	Qualitative data validates quantitative associations; stigma reduction must be central to HCT interventions.	
HCWs cited workload and staffing shortages as barriers.	Razzaq et al. (2023) identified systemic barriers as a significant challenge for HIV counseling delivery.	Suggests institutional rather than individual deficits; systemic reform needed to support HCWs in service delivery.	

Mote. The table integrates the study's findings with both Philippine and international literature, highlighting alignment, contradictions, and contributions to existing knowledge.

To further contextualize the study's findings, a comparative analysis with existing literature was conducted. Table 8 summarizes how the results align with or diverge from previous studies both locally and internationally. This integration highlights that while specific patterns, such as declining prenatal adherence and the influence of

stigma, are consistent with global evidence, the study also makes a unique contribution by demonstrating these issues within a Philippine DOH-retained hospital setting. The table illustrates that adherence behaviors are shaped not only by individual knowledge and attitudes but also by structural and socioeconomic determinants, underscoring the multidimensional nature of compliance to HIV counseling and testing.

Table 9. Integration of Quantitative and Qualitative Findings

 Qualitative Themes & Supporting Quotations
 Integrated Interpretation

 Awareness but Uncertainty: "I know it is a test,
 Knowledge gaps explain why positive

 but I do not really understand why it is
 attitudes did not consistently lead to

knowledge (M = 3.42) but positive attitudes (M = 4.02). but I do not really understand why it is attitudes did not consistently lead to adherence; education efforts must deepen understanding rather than raise awareness.

Education and income were significantly associated with adherence (p < 0.05). Barriers to Compliance: "I wanted to return, but I had no money for transportation." / "It is difficult when I have work and family duties." Socioeconomic factors directly influenced adherence. Quantitative results identify predictors, while qualitative accounts reveal the lived realities of financial and time constraints.

81.1% of HCWs performed prenatal
HCT, but only 59.5% performed
postnatal HCT.

System Challenges: "Sometimes we cannot
counsel everyone because of the number of
patients." / "We focus on prenatal, but after
delivery, mothers do not always return, and we
cannot follow up."

Quantitative results show a drop in
postnatal adherence; qualitative insights
explain this decline as driven by
workload, staffing shortages, and a lack
of structured follow-up.

Pregnant women's attitudes were positive, but adherence remained low (64.2% during prenatal care, 18.7% are being tested."

Barriers to Compliance: "I was afraid to get by st tested, what if people think I have HIV?" / by st "Some neighbors will gossip if they know you attitue adherence are being tested."

Positive perceptions are overshadowed by stigma and fear, showing that attitudes alone do not guarantee adherence.

HCWs had high knowledge, positive attitudes, and good practices (M = 4.18-4.21).

Quantitative Findings

Pregnant women had moderate

System Challenges: "Even if we want to counsel, there are just too many mothers to attend to."

Provider competency is strong, but system-level issues limit service delivery. Interventions must therefore address institutional barriers, not just training.

Note. The table demonstrates convergence and complementarity between quantitative and qualitative findings. Integration highlights that individual knowledge, psychosocial barriers, and systemic constraints jointly shape HCT adherence.

3.8 Integrated Analysis of Findings

The integration of quantitative and qualitative results from Table 9 provides a more comprehensive understanding of compliance and adherence to HIV counseling and testing (HCT) among healthcare workers (HCWs) and pregnant women. The quantitative data established measurable patterns of adherence and identified significant associations with socio-demographic variables, while the qualitative findings explained the underlying reasons for these patterns.

Quantitative results showed that 81.1% of HCWs conducted HCT during prenatal care, but adherence dropped to 59.5% postnatally. Among pregnant women, 64.2% underwent prenatal screening, only 18.7% returned for postnatal screening, and 12.5% never accessed HCT at all. These findings are consistent with international evidence showing that prevention of mother-to-child transmission (PMTCT) efforts often lose momentum after delivery (WHO, 2019; Omonaiye et al., 2018). The decline in postnatal adherence highlights a critical gap in maternal health services, as the risk of HIV transmission continues throughout breastfeeding.

While HCWs demonstrated high knowledge (M = 4.18), positive attitudes (M = 4.21), and good practices (M = 4.09), qualitative data revealed systemic barriers that limited consistent implementation of postnatal care. The theme of system challenges explained this discrepancy: HCWs described workload pressures, staffing shortages, and limited institutional support that prevented sustained delivery of counseling services. This integration shows that high provider competency alone does not guarantee adherence without supportive institutional structures. Similar findings were reported by Razzaq et al. (2023), who identified system-level barriers as key deterrents to consistent HIV counseling in low-resource settings.

Among pregnant women, the survey indicated moderate knowledge (M = 3.42) but positive attitudes (M = 4.02) toward HCT. This was echoed in the qualitative theme of awareness, yet uncertainty, in which participants expressed familiarity with HCT but admitted a limited understanding of its purpose. The findings underscore

that favorable perceptions alone are insufficient to promote adherence; genuine comprehension and motivation are required to transform awareness into behavior. Statistical analysis further showed significant associations among education, income, and adherence, reinforcing the idea that socioeconomic vulnerabilities influence testing decisions. These results align with Pepito et al. (2020), Tiruneh and Dagnew (2022), and Yeshaneh et al. (2023), who found that education and economic capacity strongly predict HIV testing uptake among women.

Qualitative data expanded these insights by illustrating the barriers to compliance, including fear of stigma, financial hardship, and competing domestic responsibilities. Participants cited discrimination and social judgment as major deterrents, reflecting global literature on the persistent stigma surrounding HIV (Nyblade et al., 2019). These psychosocial and economic obstacles clarify why many women, despite positive attitudes, fail to follow through with testing. Likewise, HCWs highlighted emotional strain and lack of institutional recognition, emphasizing the human factors that contribute to service gaps.

Taken together, the integration of quantitative and qualitative findings reveals that HCT adherence is shaped by an interplay of individual knowledge, psychosocial barriers, socioeconomic constraints, and institutional challenges. The quantitative results quantified the scope of the problem, while the qualitative themes illuminated the reasons behind the observed trends. By triangulating both data strands, the study provides a holistic understanding of why prenatal adherence is relatively high but postnatal adherence remains low. These meta-inferences emphasize the need for multi-level interventions—enhancing patient education, reducing stigma, improving socioeconomic support, and instituting organizational reforms—to sustain HIV counseling and testing across the entire continuum of maternal care.

4.0 Conclusion

This study demonstrated that while healthcare workers and pregnant women recognize the importance of HCT, adherence—particularly during the postnatal period—remains suboptimal. Barriers include stigma, fear, limited awareness, and systemic workload pressures. Facilitators such as empathy, rapport, and patient education were found to enhance adherence.

The mixed-methods design provided a comprehensive understanding of these interrelated factors. The study highlights actionable implications:

Practice: Integrate structured postnatal follow-up into routine HCT services.

Policy: Strengthen PICT implementation and provide institutional support for HCWs.

Education: Sustain maternal HIV awareness beyond pregnancy.

Research: Future studies should include longitudinal or intervention designs to evaluate long-term adherence outcomes.

By addressing psychosocial and institutional barriers simultaneously, hospitals retained by the DOH can strengthen PMTCT programs and improve maternal and child health outcomes.

5.0 Contributions of Authors

Author 1: proposal writing, conceptualization, data gathering, data analysis, and interpretation

Author 2: data analysis, data gathering

Author 3: proposal writing, data gathering

Author 4: proposal writing, data gathering

Author 5: proposal writing, data gathering

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Author 10: proposal writing, data gathering

Author 11: proposal writing, data gathering

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7.0 Conflict of Interests

The authors declare that there are no conflicts of interest, whether financial, personal, or institutional, that could have influenced the conduct or outcomes of this study.

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