


ICMHS 2022 SPECIAL EDITION

RESEARCH ARTICLE

Characteristics and communication skills of health professionals in implementing provider-initiated HIV testing and counselling (PITC) for Indonesian pregnant women

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Keywords

Communication skill
Counselling
Health professional
HIV
Pregnant women

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Abstract

Background: HIV testing for pregnant women is an important test during pregnancy. HIV testing for pregnant women is a way to prevent mother-to-child HIV transmission. **Objectives:** To investigate the relationship between the characteristics and communication skills of health professionals while conducting provider-initiated HIV testing and counselling (PITC) for pregnant women. **Methods:** This was an observational study with a cross-sectional approach. The study was conducted at 23 public health centres with 80 health professionals who conduct PITC. The data was analysed using the Chi-Square test. **Results:** There was a correlation between the characteristics and communication skills of respondents. Relationships were observed between *respondents trained on PITC* and *communication with patients* during PITC sessions ($p=0.002$); *work experience* and *non-verbal communication skills* ($p=0.047$), and *type of profession of respondents* and *non-verbal communication skills* ($p=0.029$). **Conclusions:** *Communication skills* had a relationship with experienced training on PITC, work experience, and type of profession. Increasing the communication skill of health professionals through work experience and training or education to improve the ability of health professionals in PITC services.

Introduction

Communication skills are essential in provider-initiated HIV testing and counselling (PITC) services (Anwar & Sugiharto, 2018). Some WHO/UNAIDS guidelines state that PITC should be implemented only in contexts where a minimum package of HIV care and the three Cs informed (verbal) consent, confidentiality, and counselling can be guaranteed (World Health Organisation, 2007). Information about HIV before HIV tests is essential for patients to decide their health status. Good communication makes information easy to understand.

The offer of HIV testing by health professionals such as doctors, nurses, and midwives is called provider-initiated HIV testing and counselling (PITC). PITC is usually performed on pregnant women who do a pregnancy check in the first trimester (Anugerah & Tanjungpinang, 2016).

HIV testing in pregnant women aims to prevent HIV cases in babies born to mothers with HIV. Mother-to-child HIV transmission can occur during pregnancy, delivery, and breastfeeding. HIV infection in infants can cause illness, disability, and death, harming children's survival and quality of life. In 2019, 2,370,473 pregnant women were tested for HIV. From

these examinations, 6,439 (0.27%) pregnant women were HIV positive (Pusat Data dan Informasi, 2020).

Data collection for this research was conducted during the COVID-19 pandemic. Between July and September 2021, there was a decrease in patient visits to public health centres. It was a hazardous period for vulnerable groups, including pregnant women (Susilawati & Vallencia, 2021).

Health professionals face obstacles during PITC for pregnant women. Health professionals use personal protective equipment, such as hazmat and masks, that impede communication, such as not being loud enough, not knowing who is speaking, and maintaining social distancing policies. In contrast, when offering PITC, health professionals need good communication. Good communication to give information about HIV tests when offering HIV tests to pregnant women will minimise the rejection of pregnant women. This study analyses the relationship between health professionals' characteristics and communication skills in implementing PITC for pregnant women.

Methods

Design

This research was an observational study with a cross-sectional approach. This study was conducted on health professionals (doctors, nurses, and midwives) who conduct HIV tests. The sampling was conducted in 23 health centres randomly selected from 50 health centres in Jember Regency, East Java, Indonesia. The samples in this study were 80 health professionals who provided PITC services to pregnant women at public health centres. The data processing was done analytically to find the relationship using the Chi-Square test.

Assessment

The research assessed the data through questionnaires served to the respondents to determine their characteristics such as age, gender, last education, work experience, type of health profession, training on PITC/VCT ever received, motives, and attitudes.

Training on PITC/VCT was measured only by "Yes" or "No" questions. "Motives" was measured by health professionals' responses to either of the two statements that best reflect how they conduct PITC. "Attitudes" was measured through statements that the

question will select or reflect health professionals' perspectives in the form of choices "strongly agree", "agree", "disagree", and "strongly disagree".

"Communication skills" was assessed by direct observation when the officer performed PITC on pregnant women. Researchers have trained observation officers on PITC. What observers have observed was the communication skills of health workers as seen from their skills in building relationships with pregnant women patients and the non-verbal communication skills of health workers when offering PITC to pregnant women.

Ethics approval

Universitas Airlangga Faculty approved the study protocol of Dental Medicine Health Medical Research Ethical (Reference Number: 326/HRECC.FODM/VI/2021). All respondents were asked to provide written informed consent. They could withdraw at any time without any influence on their current treatment.

Results

In total, respondents included 80 health professionals in the study concerning the implementation of PITC for pregnant women. Table I shows the relationship between characteristics and communication skills (ability to build relationships with patients in the implementation of PITC).

Table I showed a relationship between the experience of attending training on PITC/VCT with Communication Skills in building relationships with pregnant women during PITC, with a p -value of 0.002 ($p < 0.05$). The results of this study indicate that health professionals who attend training on PITC have excellent communication opportunities in building relationships with patients during PITC services.

Table II shows the relationship between characteristics and communication skills (non-verbal communication in the implementation of PITC). The relationship between work experience and non-verbal communication skills p -value of 0.047 ($p < 0.05$). Health professionals who have longer work experience will offer PITC more frequently and therefore have better non-verbal communication when providing PITC services.

Table II also showed the relationship between the health professionals (with non-verbal communication skills) and pregnant women during PITC with a p -value of 0.029 ($p < 0.05$).

Table I: Relationship between characteristics and communication skills (ability to build relationships with patients in the Implementation of PITC)

Characteristics variables	Communication skills (ability to build relationships with patients in the implementation of PITC)				p-value
	Poor	Fair	Good	Total	
1. Age					
<30	2(10.5%)	7(36.8%)	10(52.6%)	19(100%)	0.239
31-40	7(22.6%)	11(35.5%)	13(41.9%)	31(100%)	
41-50	0(0.0%)	8(44.4%)	10(55.6%)	18(100%)	
>51	0(0.0%)	6(50.0%)	6(50.0%)	12(100%)	
2. Sex					
Male	1(11.1%)	2(22.2%)	6(66.7%)	9(100%)	0.550
Female	8(11.3%)	30(42.3%)	33(46.5%)	71(100%)	
3. Education					
Diploma 3 program	7(11.9%)	22(37.3%)	30(50.8%)	59(100%)	0.934
Bachelor degree	1(7.1%)	7(50.0%)	6(42.9%)	14(100%)	
Physician	1(14.3%)	3(42.9%)	3(42.9%)	7(100%)	
4. Work experience					
Up to 5 years	0(0.0%)	11(55.0%)	9 (45.0%)	20(100%)	0.453
6-15 years	6(18.2%)	11(33.3%)	16(48.5%)	33(100%)	
16-25 years	1(9.1%)	5(45.5%)	5(45.5%)	11(100%)	
26-35 years	2(12.5%)	5(31.3%)	9(56.3%)	16(100%)	
5. Profession					
Physician	1(14.3%)	3(42.9%)	3(42.9%)	7(100%)	0.553
Nurse	1(5.6%)	5(27.8%)	12(66.7%)	18(100%)	
Midwife	7(12.7%)	24(43.6%)	24(43.6%)	55(100%)	
6. Training experience in PITC/VCT					
Never	9(14.1%)	30(46.9%)	25(39.1%)	64(100%)	0.002*
Have training on PITC/ VCT	0(0.0%)	2(12.5%)	14(87.5%)	16(100%)	
7. Motives of health professionals in PITC implementation					
Good	1(4.5%)	7(31.8%)	14(63.6%)	22(100%)	0.517
Fair	7(13.2%)	23(43.4%)	23(43.4%)	53(100%)	
Poor	1(20.0%)	2(40.0%)	2(40.0%)	5(100%)	
8. Attitudes of health professionals on the implementation of PITC					
Good	0(0.0%)	2 (50.0%)	2(50.0%)	4(100.0%)	0.695
Fair	0(0.0%)	5(50.0%)	5 (50.0%)	10(100.0%)	
Poor	9(13.6%)	25 (37.9%)	32 (48.5%)	66(100.0%)	

Notes: p-value with a correlation between variables

Discussion

Public health centres in the Jember Regency of East Java, Indonesia, have different characteristics because they are located throughout the regency, consisting of urban, rural, mountainous, or coastal areas. Therefore, involving health professionals outside the primary health centre, such as the remote health centre, will help in reaching people who live far from the main public health centres. Although other research on the involvement of health professionals outside the primary health centre can effectively reach remote communities, such a model should be considered a

strategy in future efforts to end the HIV epidemic. (Hammack *et al.*, 2021).

There was a relationship between the experience of attending training on PITC/VCT with Communication Skills in building relationships with pregnant women during PITC. Proper education and skill improvement through training are investments from health professionals in carrying out their roles following their primary duties and responsibilities (Handayani *et al.*, 2010). Health professionals are enthusiastic about learning new skills and can provide more holistic services to pregnant women, proving that available services can increase motivation (Young *et al.*, 2019).

Table II: Relationship between characteristics and communication skills (non-verbal communication in the implementation of PITC)

Characteristics variables	Communication skills (non-verbal communication in the implementation of PITC)			p-value
	Fair	Good	Total	
1. Age				
≤30	0(0.0%)	19(100%)	19(100%)	0.444
31-40	2(6.5%)	29(93.5%)	31(100%)	
41-50	0(0.0%)	18(100%)	18(100%)	
>51	1(8.3%)	11(91.7%)	12(100%)	
2. Sex				
Male	1(11.1%)	8(88.9%)	9(100%)	0.304
Female	2(2.8%)	69(97.2%)	71(100%)	
3. Education				
Diploma 3 program	3(5.1%)	56(94.0%)	59(100%)	0.708
Bachelor degree	0(0.0%)	14(100%)	14(100%)	
Physician	0(0.0%)	7(100%)	7(100%)	
4. Work experience				
Up to 5 years	1(5.0%)	19(95.0%)	20(100%)	0.047*
6-15 years	0(0.0%)	33(100%)	33(100%)	
16-25 years	2(18.2%)	9(81.8%)	11(100%)	
26-35 years	0(0.0%)	16(100%)	16(100%)	
5. Profession				
Physician	0(0.0%)	7(100%)	7(100%)	0.029*
Nurse	3(16.7%)	15(83.3%)	18(100%)	
Midwife	0(0.0%)	55(100%)	55(100%)	
6. Training experience in PITC/VCT				
Never	2(3.1%)	62(96.9%)	64(100%)	0.493
Have training on PITC/VCT	1(6.3%)	15(93.8%)	16(100%)	
7. Motives of health professionals in PITC implementation				
Good	1(4.5%)	21(95.5%)	22(100%)	1.000
Fair	2(3.8%)	51(96.2%)	53(100%)	
Poor	0(0.0%)	5(100%)	5(100%)	
8. Attitudes of health professionals on the implementation of PITC				
Good	0(0.0%)	4(100%)	4(100%)	1.000
Fair	0(0.0%)	10(100%)	10(100%)	
Poor	3(4.5%)	63 (95.5%)	66(100%)	

Notes: p-value that correlates with variables

Building relationships with patients is a communication skill that can be improved through training. In this study, 12.5% of health professionals lacked communication skills; of course, this was not good. However, effective communication between health professionals and patients is crucial to provide efficient treatment where the impact will directly affect service quality improvement.

Communication between health professionals at a health facility has great potential to help patients understand medical information, regulate emotions, perceptions, and expectations, and build trust in the health professionals who treat them so that patients will comply with all suggestions and advice (Alfarizi, 2019). Integrated and patient-specific education and promotion of comprehensive HIV care and support services that include timely HIV testing for pregnant women should be strengthened (Berhan *et al.*, 2014). Other studies showed that innovations are more likely

to be adopted and implemented if they are easy to use, appropriate to the practice setting, and accepted by training and feedback support (Young *et al.*, 2019).

“Work experience” relates to a worker's experience in dealing with problems at work. This study found that health professionals who have longer work experience offered PITC more frequently and therefore have better non-verbal communication when providing PITC services.

PITC ability and motivation influenced the HIV tests offered, but this effect differed according to the type of health profession. The type of health profession that offers PITC more often will have better non-verbal communication when providing PITC services. midwives offering PICT is routinely the standard of maternity care but there are still shortcomings when obtaining Informed consent for HIV testing (Inghels *et al.*, 2020).

Communication skills include non-verbal behaviours such as closeness, physical touch, and loud noises. Errors in understanding a sign will lead to errors in interpretation. Misinterpretation will be exacerbated if differences exist in the backgrounds of the people communicating. In this study, 96.25% have good skills in non-verbal communication when offering the PITC. Non-verbal communication is an attempt to confirm the information conveyed (Siregar, 2016).

Conclusion

The study found a relationship between “Communication skills” (with experience training on PITC), work experience, and the type of professional skills of Health professionals in implementing provider-initiated HIV testing and counselling (PITC) for Indonesian Pregnant Women. The experience of training on PITC correlates with communication Skills in building relationships with pregnant women during PITC. The relationship between work experience and non-verbal communication. The professions of respondents correlated with non-verbal communication skills with pregnant women during PITC.

Communication skill has a relationship with experience training on PITC and type of profession. It is important to increase the communication skills of health professionals through work experience, and training or education to improve the ability of health professionals in PITC services.

Acknowledgement

The authors are thankful to the study participants for giving them a fruitful time to participate in this study and for the unlimited support throughout the data collection stages.

Source of funding

This study did not receive any grant for funding. In addition, no reimbursements, fees, funding, or salary from any organisation depends on or influences this study's results and publication.

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