Barriers and Facilitators in Readiness to Adopt Rapid HIV Testing Among Healthcare Workers in Chile

BY

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THESIS

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AIDS	Acquired Immune Deficiency Syndrome
CDC	Centers for Disease Control and Prevention
EBP	Evidence-Based Practice
ELISA	Enzyme-Linked Immunosorbent Assay
HIV	Human Immunodeficiency Virus
ISP	Public Health Institute
MINSAL	Chilean Ministry of Health
MSM	Men who have Sex with Men
MR	Metropolitan Region
NIDA	National Institute on Drug Abuse
ORT	Oral Rapid HIV Test

SUMMARY

Currently, the only HIV test available in Chile is the Enzyme-linked Immunosorbent Assay **(**ELISA), which requires a blood draw and laboratory facilities to conduct the assay. Also, because of the lengthy amount of time it takes to get results, some clients do not return for them. The less invasive oral rapid HIV test (ORT), which uses an oral swabbing of mucosal saliva, yields results within 20-40 minutes. Its sensitivity and specificity have a demonstrated parity to those of the ELISA, and its use in many countries has greatly increased rates of HIV testing and the number of people who learn their results. Although ORT use in Chile has yet to be legalized by the country's government, ORT is an alternative to the ELISA and has the potential to help Chile meet its national HIV prevention goals of increased testing and early entry into treatment. This study examines individual factors that affect Chilean healthcare providers' readiness to adopt ORT and their perceived comfort in performing the test.

To explore this line of inquiry, the study used a cross-sectional survey design. All 200 nurses, midwives, and physicians employed at four clinics of the University Católica de Chile health network in Santiago, Chile were invited to participate in the study. Of these, 150 nurses, midwives, and physicians (75%) completed a self-administered survey. Survey items included questions about the informants' demographic characteristics, attitudes towards and experience with evidence-based practice (EBP), and AIDS-related attitudes and beliefs including HIV-related stigmatization, the perceived importance of HIV testing, and perceived comfort performing rapid HIV test.

The results are presented in two papers. The first paper contributes to the field of HIV translational research by investigating those factors that predict Chilean healthcare providers' readiness to adopt ORT. This analysis is informed by the Advancing Research and Clinical Practice through Close Collaboration Model (ARCC), which measures readiness as the first of five steps in successfully implementing an EBP. Results show that providers had a mean *Readiness to implement ORT* score of 15.1 on a scale of 0-20, with higher scores indicating higher readiness. Educational background, *Beliefs about evidence-based practice* (EBP), *Perceived comfort performing rapid HIV test*, and *Perceived importance of HIV testing* explained 43.6% of the variance in readiness to adopt ORT.

The second paper contributes to the field of HIV prevention and treatment by focusing on predictors of perceived comfort in performing ORT as a potential barrier to its adoption among Chilean healthcare providers. According to the Social Cognitive Learning theory (Bandura 1986), self-perceived comfort, a component of self-efficacy, shapes how people respond to new challenges and situations. In the analysis above (paper 1), *Perceived comfort performing rapid HIV test* was the strongest predictor of *Readiness to adopt ORT*. The *Perceived comfort in Performing ORT* scale, which was developed for this study ($\alpha = 0.72$), asked about level of comfort in performing each of the five steps: pre-test counseling, giving an oral test, giving a finger-prick test, giving a positive test and post-counseling, and giving a negative test and post-counseling. Results show a mean score of 16.21 (range 0-20). Participants felt most comfortable doing an oral rapid HIV test and giving negative test results and post-test counseling. They were the least comfortable with giving positive test results and providing appropriate post-test

counseling to these patients. Age, profession and HIV-related stigmatization explained 7.2% of the variance in comfort.

One limitation to this study's generalizability is that the sample was recruited from four clinics belonging to a university hospital network. Consequently, this sample of providers may have more favorable attitudes towards EBP and ORT because they work in a university healthcare system. Results from providers employed at community-based facilities may differ. Still, evidence from this study suggests that healthcare providers in Chile may be ready to implement ORT as EBP. Ongoing training to increase their confidence in their knowledge and ability to implement EBPs and ORT procedures, particularly in giving a positive HIV-test result, may be beneficial for those who are unfamiliar with or lack confidence in ORT or their ability to administer it.

Taken together, the findings from this dissertation contribute important information about Chilean healthcare providers' readiness and comfort in adopting ORT. The ARCC model was useful in understanding the factors that contributed to readiness for ORT, adding further evidence that this model is a robust approach to guide evaluation of readiness to introduce new EBPs. Perceived comfort performing rapid HIV test is a predictor that the principal investigator added to the model. It was the greatest predictor of readiness to adopt ORT, suggesting that providers' level of comfort performing any new EBP is a critical factor that should be added to the assessment of readiness in the ARCC model. Providers' comfort is also of consequence in a practical way because it has the potential to be improved through training.

The *Perceived comfort performing rapid HIV test* scale created for this study has good face to face validity and psychometric properties, and is a useful instrument for future studies. Even though most of the healthcare providers expressed comfort performing ORT, a sizable group of providers indicated potential discomfort in doing specific procedures and most of the providers did not think they would feel comfortable giving a positive test result with post-test counseling. Thus, provider training is needed for all of the steps in ORT. Healthcare providers under age 40 had greater comfort performing ORT than older providers, possibly because EBP has only recently been emphasized in healthcare provider training. Stigmatizing attitudes were negatively related to perceived comfort performing rapid HIV test. This is not surprising since providers who have stigmatizing attitudes towards a group are likely to feel less comfortable interacting with them. This finding highlights the need to address HIV-related stigmatization among healthcare providers so that they can be truly comfortable performing ORT. Reducing stigmatization among providers is aligned with Chilean government policies and law.

This is the first pre-implementation study in anticipation of the possible introduction of ORT in Chile. These results can be used to guide preparations for implementation of ORT by identifying and addressing potential barriers related to individual provider readiness to implement ORT.

I. INTRODUCTION

A. Background

1. The battle against the HIV epidemic in Chile may require a new HIV screening test

The HIV epidemic continues to be a great public health concern in Chile, despite the different national strategies and prevention campaigns implemented (Ferrer, Cianelli, & Bernales, 2009). Currently, the only HIV test available in Chile is the Enzyme-linked Immunosorbent Assay (ELISA), which requires a blood draw and laboratory facilities to conduct the assay. Also, because of the lengthy amount of time it takes to get results, some clients do not return for them (MINSAL, 2013; MINSAL 2009). The less invasive oral rapid HIV test (ORT), which uses an oral swabbing of mucosal saliva, yields results within 20-40 minutes (CDC, 2006). Although ORT use in Chile has yet to be legalized by the country's government, recent evidence collected in Chile about the ORT's sensitivity and specificity supports its adoption as an alternative to the currently used ELISA for HIV screening test (Irarrazábal et al., 2013).

The main route of transmission in Chile has always been sexual contact (96.6% reported for year 2012), mainly among men who have sex with men (MSM) (MINSAL/ONUSIDA, 2012). In the last Chilean Ministry of Health report in 2012, there were 29,092 people living with HIV and AIDS (MINSAL/UNAIDS, 2014). Despite declines in overall prevalence, during the last 12 years, a sustained increase in HIV/AIDS prevalence has been observed in certain regions of Chile: Arica, Metropolitana (MR), Parinacota, Tarapaca, and Valparaiso (MINSAL, 2012). In 2012, the MR, where the study takes place, had a reported HIV rate of 25.1 per 100,000 inhabitants (MINSAL, 2012) whereas the rest of Chile had a rate of 8.6 cases per 100,000 habitants. (MINSAL., 2014).

In addressing this problem, the Chilean national plan for controlling the epidemic includes increasing HIV testing and earlier referral to care for persons identified as HIV positive (MINSAL, 2014). Also in 2001, Chile approved an AIDS Law (#19,779), which established that the State is responsible for leading prevention, protecting the rights and duties of people with HIV and AIDS and reducing stigma and discrimination associated with living with the virus (Library from the National Congress of Chile, 2011). The ELISA test is free, and there is 100% treatment coverage if the person tests HIV positive or a copayment of 20% of the costs for those in the private sector (CONASIDA, 2011; Gobierno de Chile & Salud, 2014). The HIV test is available at both public and private healthcare facilities, including: primary healthcare clinics, clinics for sexually transmitted diseases (UNACESS), outpatient hospital facilities, laboratories, hospitals, and non-profit institutions (MINSAL, 2014). To obtain an HIV test, an appointment with a professional (nurse, midwife or physician) at a healthcare clinic is needed. The physicians give the referral and the pre-test counseling is usually done before the blood is drawn at the testing facility. Once a person has confirmed his/her readiness to take the test, he/she needs to sign an informed consent document, which includes agreeing to have a blood sample taken and to return to obtain the result (MINSAL, 2014). If the HIV screening test is reactive, a confirmation test needs to be performed by the Institute of Public Health (ISP) (ISP, 2012). The healthcare provider who gave the referral does not necessarily give the test result to the patient. It will depend on how the specific healthcare clinic has arranged for this to be done (personal communication, Clinic Coordinator at a laboratory performing HIV tests, 2015).

2. Oral rapid HIV test as an alternative to current HIV screening, an example of evidence-based practice (EBP)

Evidence-based practice is defined as "integrating best available research evidence with information about patient preferences, clinical skill level and available resources to make decisions about care" (Ciliska et al., 2011). The oral rapid HIV test (ORT) referred here is the OraQuick® ADVANCE Rapid HIV-1/2 Antibody Test (OraSure Technologies Inc., Bethlehem, Pennsylvania United States). This ORT has sensitivity and specificity with demonstrated parity to those of the ELISA. Its use in many countries has greatly increased rates of HIV testing and the number of people who learn their test results (CDC, 2006; Dulce-Lemos L, 2005; Quian et al., 2005; Wesolowskia, 2006). Furthermore, a study conducted specifically in Chile found that the ORT had equally high sensitivity and specificity in detecting HIV when compared to the ELISA and was preferred by clients (Irarrazábal et al., 2013). Thus, ORT is an example of an EBP.

Healthcare practitioners are encouraged to adopt new EBPs to decrease the gap between best practice and clinical care (General Medical Council, 2012; Rengerink, 2013). This gap is substantial. For example, a study in the United States showed that around 30% of patients do not receive care according to the latest scientific evidence, and 25% of patients receive unnecessary or potentially harmful care (McGlynn, 2003). Pre-implementation studies are important because implementing a new EBP is not merely a matter of employing more effective methods of knowledge transfer (Gregory. Aarons, Sommerfeld, & Walrath-Greene, 2009; Nilsson et al., 2013; Scott, Plotnikoff, Karunamuni, Bize, & Rodgers, 2008). A number of factors hinder the use of EBPs (Schaffer, 2012). Barriers to readiness to using EBPs in clinical settings include: lack of opportunity for healthcare providers to acquire knowledge about the efficacy of EBPs,

insufficient time given to providers to implement new EBPs, lack of necessary provider skills to apply the EPBs, lack of mentorship to help guide its successful use, and insufficient facilities or resources to implement EBPs, including inadequate administrative support for its adoption (Ciliska et al., 2011; Funk, 1995; Hutchinson, 2006 ; McKenna, Ashton, & Keeney, 2004; Melnyk & Fineout-Overholt, 2005; Plath, 2013; Rengerink, 2013). Promotion of the use of models to facilitate the complex process of implementing a new EBP is strongly recommended as a means to deliver high quality care and improve health outcomes (Dougherty & Conway, 2008; Titler, 2011).

Traditionally, efforts to close the gap between knowledge and practice have focused on education, training, and dissemination of information through conferences, journal articles and reports or brochures (Backer, 1995).

One factor that has been identified as critical for implementation success is readiness for change. Readiness is described in term of the organizational member's beliefs, attitudes, and intentions (Armenakis, Harris, & Mossholder, 1993). "Readiness is the cognitive precursor to the behaviors of either resistance to, or support for, a change effort" (Armenakis & Harris, 2002, p.1). Employee readiness is influenced by the messages they have received about the innovation, the change agent attributes and the interpersonal and social dynamic of organizational members. It can also be influenced by existing organizational conditions, and significance of the change effort (Armenakis & Harris, 2002).

Chilean providers' perceptions about their readiness to adopt ORT may influence the implementation success of ORT. Since no implementation study has examined readiness to adopt ORT, further knowledge is needed regarding healthcare providers' readiness to ORT.

B. Conceptual Framework

The current study draws upon components of the first stage of the Advancing Research and Clinical Practice through Close Collaboration (ARCC) model to measure individual readiness to ORT, a predictor of implementation success.

The ARCC model was originally conceptualized by Bernadette Melnyk in 1999 as part of a strategic planning initiative to unify research and clinical practice in order to advance EBP, with the ultimate purpose of improving healthcare quality and patient outcomes (Melnyk & Fineout-Overholt, 2002; Melnyk & Fineout-Overholt, 2005). The ARCC model was chosen for this study because it incorporates key elements for individual as well as organizational factors for EBP implementation (Ciliska et al., 2011). The ARCC model has been developed over a decade of empirical testing of the model's key relationships and by working with healthcare institutions to advance and sustain EBPs (Ciliska et al., 2011). This model highlights the importance of assessing EBP beliefs and building the skills needed to introduce EBPs in order to consistently implement new EBPs and build a culture that sustains best practices. It draws upon principles of the Cognitive Behavioral Theory, which recognizes the influence of individual, social, and environmental factors on cognition, learning, emotions, and behavior (Beck, Rush, Shaw, & Emery, 1979; Ciliska et al., 2011; Lam, 2005). The model has five steps: (1) assessment of organizational culture and readiness for implementation in the healthcare system; (2) identification of strengths and barriers of the EBP process in the organization; (3) identification

of EBP mentors; (4) implementation of the evidence into organizational practice; and (5) evaluation of the outcomes resulting from the practice change (Ciliska et al., 2011). Based on this model, scales have been developed to measure organizational culture and effectiveness of EBP in practice (Ciliska et al., 2011). The ARCC model asserts that when clinicians understand the value of EBP and have the ability to perform it, more EBP implementation will be performed in the clinical setting (Ciliska et al., 2011).

This study focuses on the first step only and examines readiness to adopt ORT among individual healthcare providers. Readiness is defined by Backer (1995) as "a state of mind about the need for an innovation and the capacity to undertake technology transfer" (p. 22). Within this context, what people believe, rather than what actually exists, is salient when assessing readiness (Becker, 1995). The second half of the readiness definition speaks to the capacity for change and as such, is more dependent on characteristics of the individuals and organizations (Goldman, 2009). The individuals' beliefs that they have the resources they need to implement new techniques might be more important than the actual availability of the resources (Goldman, 2009).

The model to be tested (Figure 1) assumes that individual demographic characteristics (age, gender, profession, educational background) and *EBP beliefs* have a direct effect on *Readiness to adopt ORT*. HIV-related perceptions, *HIV-related stigmatization*, *Perceived importance of HIV testing*, and *Perceived comfort performing rapid HIV test* are also directly associated with individual *Readiness to adopt ORT*. In general, such factors have been found to be associated with HIV testing implementation programs (Christopoulos et al., 2011; Nassary et al., 2012; Manirankunda, Loos, Debackaere, & Nöstlinger, 2012; Wakjira, Fikru, Temesgen, &

Gutu, 2014). Practitioners with positive HIV-related perceptions are probably more willing to perform a 20-minute HIV test, and they may value ORT as a new EBP that can increase HIV testing in Chile.

C. Purpose of the Study

In Chile, the Chilean MINSAL and Institute of Public Health (ISP) have yet to adopt ORT as an alternative to the currently used ELISA for HIV screening test. Scientific evidence has shown that ORT, if adopted, could help meet Chile's HIV prevention goals to increase HIV testing and early referral to treatment. However, no pre-implementation studies have been conducted in Chile to identify likely barriers to the introduction of ORT, especially readiness to adopt ORT and perceived comfort performing rapid HIV test.

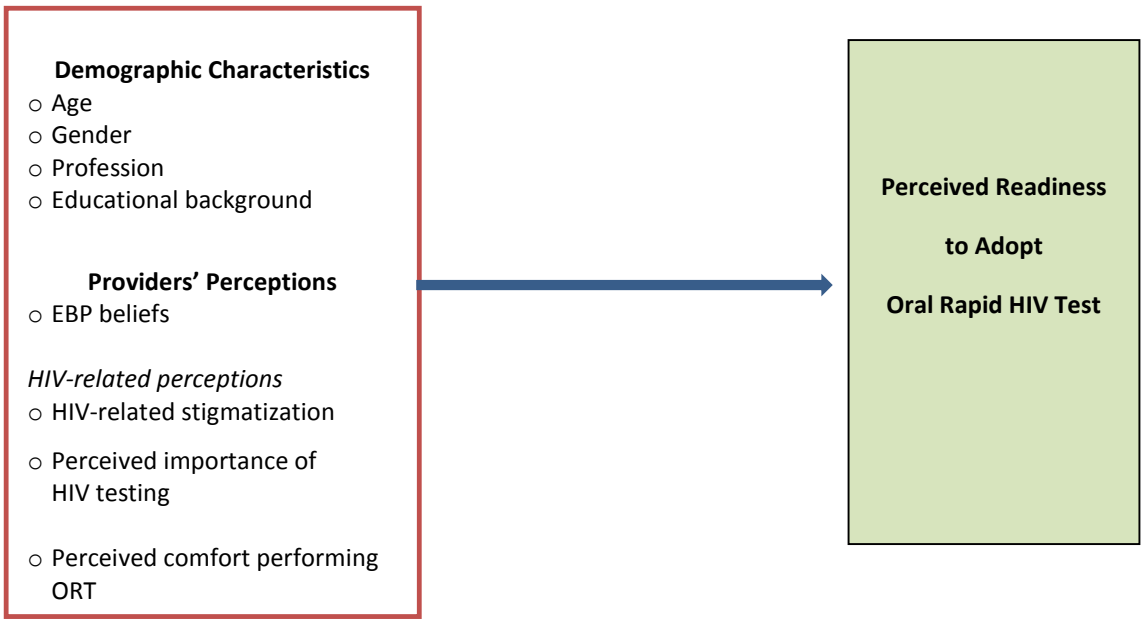

Figure 1. Conceptual model of perceived readiness to adopt ORT.

To begin to address this gap, the thesis explored Chilean healthcare providers' readiness to adopt ORT and their perceived comfort doing ORT. Results were divided into two papers. The first paper examines readiness to adopt ORT and the factors associated with readiness among healthcare providers. This analysis is guided by an implementation model for EBP implementation success (i.e. ARCC). The second paper examines providers' perceived comfort performing rapid HIV tests and the factors that predict it. Comfort performing ORT can be considered as a component of self-efficacy, which is the confidence to perform a specific behavior (Bandura, 1986). Bandura's Social Cognitive Learning theory can provide guidance on how to increase providers' confidence by using the needs identified in this paper.

D. Significance of the Study

This research is the first study to investigate readiness for ORT and perceived comfort performing rapid HIV test in Chile. Exploring implementation factors for ORT adoption helps identify current perceived barriers to ORT adoption among healthcare providers

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From a public health perspective, successful implementation of ORT in Chilean healthcare settings has the potential to help meet the country's HIV prevention goals of increasing HIV testing and early referral to care of persons identified as HIV positive. Delivery of ORT through primary healthcare clinics can help reach the entire Chilean population, including its most geographically isolated areas with limited access to laboratory facilities where ELISA tests can be performed. If ORT is successfully introduced as an alternative to the current screening test, over time, this EBP can help decrease HIV transmission in Chile. Finally, this

research will also contribute to the field of HIV-related translational research by investigating those factors that predict Chilean healthcare providers' readiness to adopt ORT.

E. Methods

1. Research design

This study used a cross-sectional survey design with a self-administered instrument to measure Chilean nurses', midwives' and physicians' individual readiness to adopt ORT and perceived comfort performing rapid HIV test.

a Setting

A convenience sample of healthcare providers was recruited from four clinics that belong to the Universidad Católica de Chile network, with which the principal investigator is affiliated. It is one of the largest private providers of outpatient care and ELISA testing in Santiago. Three of the sites are public facilities located in middle to low income neighborhoods (MINSAL, 2013). The fourth clinic offers private healthcare and has more medical specialties (e.g. x-rays, dermatology, minor surgeries).

These healthcare providers also take on the role of teachers and supervisors for undergraduate students in the selected centers, and are expected to have a higher level of knowledge about evidence-based practice than regular healthcare providers. They are expected to be up-to-date with the latest treatments and procedures available for care. Thus, awareness and support of EBP is likely to be higher at these healthcare clinics than most healthcare clinics in Chile.

b Sample

All 200 nurses, midwives, and physicians employed at four clinics of the University Católica de Chile health network in Santiago, Chile were invited to participate in the study. Of the 200 participants invited to the study, 33 refused or were unable to participate, and 17 failed to return the questionnaire by the agreed deadline. Thus, the total sample was 150 providers, yielding a response rate of 75%. At the site, the questionnaire was reviewed with each participant before the participant left. If a question was left blank, the participants were instructed to either answer it or write "I do not want to answer" when applicable. Only one participant didn't want to answer one question.

c Selection criteria

Participant inclusion criteria included working at the selected centers as a nurse, midwife or physician. Providers working in medical specialties, such as radiology, and do not typically refer patients for HIV testing were excluded.

This study focuses on nurses, midwives, and physicians since they play a major role in counseling and/or referring patients for HIV testing. In Chile, specialized nurses at specific testing sites in their clinics perform the HIV test blood draws. Nurses and midwives who work in HIV testing are certified counselors (MINSAL, 2007). The sample also includes physicians because physicians often refer patients for HIV testing. Also, all three occupations require a 5-7 year university degree, and their training is expected to include course work in evidence-based practice and HIV (PUC, 2013a, 2013b).

d Sample size

The total sample size from both the pilot study and main study was 205 participants. The pilot study was performed with five participants (two nurses, one midwife, and two physicians) from a clinic other than the study sites. The main study had 200 eligible participants, all of which were invited to participate in the study. Of those eligible, 33 refused to participate or were unable to participate, and 17 failed to return the questionnaire by the agreed deadline, thereby giving a final total of 150 participants and yielding a response rate of 75%. The power analysis indicated that a sample of 150 participants was sufficient to give an 80% statistical power to detect a medium size effect (0.25-0.50) between the independent and dependent variable within a multiple linear regression model. All calculations assume an alpha of 0.05 for two-sided tests of significance. It does not adjust for correlation between responses from individuals sampled from the same clinic because we expect that clinic-level factors, such as perceived organizational EBP culture, may have a minimal variation. This study is designed to look at individual-level and not clinic-level factors, which is consistent with the exploratory nature of the research focused on individual providers.

e Recruitment

For the pilot questionnaire, a group of healthcare workers from a primary healthcare clinic, at which the principal investigator has previously worked,

expressed interest in participating in the pilot. An invitation letter was sent to them to explain what participation will entail and where the pilot meeting will be held. All five of them confirmed their willingness to participate.

For the main study, recruitment at the clinics began in February 2014 and ended in April 2014. A time and space for research staff to meet with nurses, midwives and physicians was arranged with the director of each clinic. Recruitment was held at these meetings and by individually approaching prospective participants who did not attend the meeting. The meetings allowed research staff to inform prospective participants about the study, invite them to participate, and give them a letter containing information about the study and when the questionnaire session would be held. Prospective participants were also given the research team's contact information in case they wanted to call or email about any concerns regarding the study or interest in participating. At the meeting, those who were present were also asked to sign and enter their contact information on a sign-up sheet that was passed around the room. It was explained that signing the sign-up sheet did not mean that they were agreeing to participate. Including their contact information was voluntary, and the research staff would only use the information to ask prospective participants at a later time if they would like to take part in the study.

Offered three available days by the research team, interested healthcare providers signed up to take the questionnaire on a day most convenient to them.

Two days before their session, a reminder was sent to them either by phone or email. A flyer, which contained the dates on which the questionnaires could be taken, was also put up in the lunch room.

Since the sessions were held at noon, the participants were offered lunch as compensation for their time in completing the questionnaire. To help ensure confidentially, the questionnaires were completed anonymously without names or other personal identifiers.

Time between recruitment and questionnaire sessions did not exceed a week. At the questionnaire session, a short informational briefing was held and the researcher responded to questions about the study. Providers were told that the questionnaire did not ask for any identifiable information, but that anyone attending the session could learn about others who were participating in the research. Although everyone at the session was asked to respect everyone's privacy and confidentiality and not to identify anyone in the group, participants need to remember that fellow participants may accidentally disclose whom they saw at the session. To ensure privacy, the researcher designed the room's seating arrangement in a way that prevented participants from seeing each other's answers. Furthermore, each participant received a questionnaire in an envelope, which would then be later used to return the questionnaire to a research team member.

2. Protection of research participants

Before data collection began, a support letter for the main study was obtained from the head director of the Universidad Católica de Chile (UC) clinic network. Ethical approval was obtained from the institutional review boards of the two universities involved in the study – University of Illinois at Chicago (UIC) and Universidad Católica de Chile (UC) – and from the study site (the South-East Metropolitan Health service [SSMSO]).

This research involved minimal risk, and the possible risks were minimized in several ways. Although invitations to participate were made at the staff meeting, the acceptance or rejection of participating in the study was performed individually, thereby helping to prevent any feelings of coercion. This was important since prospective participants were recruited at their work place and the study was supported by their directors. Other precautions were also implemented to minimize the likelihood that others would learn as to who participated in the study. This is described in detail in the recruitment process above.

In summary, the participants' consent to participate was obtained in private; lunch was provided to compensate for participants' time; and the questionnaire was self-administered and kept anonymous. All the information was kept confidential, and separate envelopes were used to prevent the answers from being seen by others. If the questionnaires were found accidentally, the likelihood that they could be used to identify

participants was very low. Only the research team had access to the questionnaires, and no one on the research team had any affiliations with the clinics.

During data collection, completed questionnaires and documents containing personal contact information were stored in a locked file cabinet at the Catholic University. Those with access included only the principal investigator (P.I) and the research assistant helping with data entry. Once the data collection was finished, healthcare providers' contact information was destroyed. Upon return to UIC, the PI stored the questionnaires in a locked file, to which only she has access. The questionnaires will be destroyed within three months after the conclusion of the study's data analysis. The quantitative data was entered into a single computer accessed only by the principal investigator. Two research assistants were recruited from the School of Nursing at Pontificia Universidad Católica de Chile, and they both had IRB training (Initial Investigator Training via the CITI Basic Course for Investigators and Research Personnel from the University of Illinois at Chicago).

3. Study variables and measures

The study measures were translated into Spanish by the principal investigator, who is bilingual and a Chilean. Except for the EBP scale, which was translated and tested in Spanish (Gregory Aarons, Sommerfeld, & Walrath-Greener, 2009), measures were available only in English. To validate the translation, cognitive interviews were performed (Drennan, 2003). Five Chilean primary healthcare providers (two nurses, one midwife, and two physicians) from a clinic other than

the study sites participated in the cognitive interviews. Based on the results, two changes were made in the questionnaire. A definition of a word was added to one question, and a synonym was used to replace an unfamiliar word.

Items included questions about the informants' demographic characteristics, readiness to adopt ORT, EBP beliefs, and HIV-related perceptions, such as HIV-related stigmatization, perceived importance of HIV testing, and perceived comfort performing rapid HIV test.

a Demographic factors

Four demographic factors were included. Age was obtained as an ordinal variable with 5 categories. The following were dichotomous variables: gender (men coded as 1 and women coded as 0), profession (nurse/midwife coded as 1 and physician coded as 0), and educational background (Bachelor's degree coded as 0 and advanced degrees [Masters, PhD, Post doc] coded as 1).

The *Readiness to adopt ORT scale*, which is based on the Brief Individual Readiness for Change Scale, was adapted by changing the reference to a specific EBP for addiction service to "ORT." The developer has stated that the scale is intended to be used with appropriate modifications to assess readiness for any specific EBP (Goldman, 2009). The brief scale includes five items, each representing one of the 5 main areas related to readiness: (1) provider quality or

characteristics, (2) motivational readiness, (3) perceived organizational support, (4) institutional resource, and (5) the belief that the change will make a difference (Backer, 1995; Goldman, 2009). The result was a 5-item Likert scale of 0 to 4 that asks respondents to indicate the extent to which they agree or disagree that they feel ready to implement ORT. Responses were summed for a score ranging from 0 through 20, with a higher score indicating greater readiness for ORT adoption. The reported internal consistency (Cronbach alpha) in a prior study was $\alpha = 0.66$, slightly below the recommended level of 0.70 (Goldman, 2009). In this study, the scale appeared to have good internal consistency ($\alpha = 0.72$).

b **EBP beliefs**

The Evidence-Based Practice Beliefs Scale (EBP beliefs) consists of 16 items scored on a 5-point Likert scale (agree to disagree) (Melnyk et al., 2008). The scale measures two subcomponents of participants' beliefs about adopting EBP practices: (1) their self-perceived difficulty in using and understanding EBP, and (2) their personal confidence in being able to do so. According to the scale developers Melnyk, Fineout-Overholt, and Mays (2008), "The scores are interpreted by what indicates agreement where the interpretation markers are 16, 32, 48, 64 and 80; therefore, scores below a 64 indicate that there is less than agreement with their knowledge of, confidence in and belief in their ability to implement EBP. Scores below 48 (neither agree or disagree) indicate that there is not full commitment at this point to EBP." The scale was previously validated

and translated in Spanish for use with nurses, and that study reported a Cronbach's of 0.86 (Thorsteinsson, 2012). The scale demonstrated high internal consistency when used in this study ($\alpha = 0.86$).

c **HIV-related perceptions**

Providers' HIV-related perception factors included three variables. The *HIV-related stigmatization scale* was developed by adapting two subscales of the *Nurses' Attitudes toward AIDS Scale (NAAS)* (Preston, Young, Barthalow, & Forti, 1995). To be appropriate for use by a variety of healthcare providers, "nurses" was changed to "nurses, midwives, and physicians." The HIV-related stigmatization scale was developed in English for use in the U.S. The most current version (Version 2) of the scale, which has 45 items and is divided into four subscales, measures attitudes toward homosexuality, HIV and AIDS care, societal-professional concern, and IV drug abusers. Each item is scored on a Likert scale, with 1 indicating "strongly agree" and 5 indicating "strongly disagree." Higher scores indicated higher levels of stigma against people living with HIV. The overall internal consistency was high ($\alpha = 0.83$). The homosexuality and drug abusers subscales were about attitudes toward homosexuals or drug abusers and were not related to providing care. Therefore, only the HIV and AIDS care and societal-professional concerns subscales were selected, both of which directly relate to providers' direct caregiving and HIV concerns. Both subscales reported high reliability: attitudes about care concern (12 items: $\alpha = 0.83$) and attitudes about social-professional concerns (8 items: $\alpha =$

0.72) (Preston et al., 1995). The overall Cronbach alpha for the two subscales combined in this study was acceptable ($\alpha = 0.71$).

Perceived importance of HIV testing was a three-item index developed specifically for this study. The items examined support for three aspects of increased HIV testing that have been recommended by UNAIDS (2010) to stop HIV transmission. The items asked respondents to indicate if they agreed or disagreed that: (1) more HIV testing is important in Chile to prevent the spread of HIV; (2) more HIV testing is important in Chile to get people into treatment earlier; and (3) HIV testing in primary health clinics should be increased using rapid HIV testing. Respondents received one point for each item with which they agreed for a summated score of between 0 to 3 points. The higher the score, the more they felt HIV testing to be important. Internal consistency reliability is not appropriate for this type of index because the items do not represent a single dimension.

The *Perceived comfort performing rapid HIV test scale* consisted of 5 items measured on a 5 point Likert scale ranging from "strongly disagree" (0) to "strongly agree" (4). These items were specifically created for this study, and they were reviewed by an expert and pilot tested before being used in the study. The questions were based on prior research about individual barriers to HIV testing program adoption (e.g. feeling comfort performing certain procedures). The ORT-related questions asked participants how comfortable they would feel

doing pre-counseling, oral testing, finger-prick testing, giving a positive test result with post-counseling, and giving a negative test result with post-counseling. The higher the score, the greater the providers' perceived comfort in performing rapid HIV tests. The finger-prick test was included in the questions because the oral rapid HIV testing kit includes the use of both oral and finger-prick tests. The use of the finger-prick rapid test as a confirmatory test after a positive result has been reported in Malawi and may also be common practice in other countries. Therefore, it should be considered as part of the oral rapid HIV testing program. The inter-item correlations suggested that all items were a single scale, and the Cronbach alpha for this study was acceptable ($\alpha = 0.714$).

4. Data analysis

The data was entered, coded and analyzed using SPSS 22.0. Analysis was done in three phases. First, the scales were examined and reliability and descriptive statistics performed. Second, the relationship between each independent variable and the dependent variable was examined using a t-test for dichotomous variables and correlations for scales. Variables that were not significantly related with the dependent variable ($p<.05$) were not included in the following phase of analysis. Third, multiple linear regression modeling was performed. Test assumptions of the variables entered in the multiple linear regressions were examined, including: level of homoscedasticity, linearity, and normality in all the variables. The regression analysis model was created, dropping non-significant predictors.

5. Limitations of the study

A major limitation of this study relates to the convenience sampling of the clinics, as it limits the number and diversity of the clinics selected for this study. Furthermore, participants coming from University-based clinics are more likely to know more about EBP and be open to its implementation compared to providers from other primary healthcare clinics in Santiago, Chile. There is also a possibility of the social desirability bias if the healthcare providers feel pressure to express positive attitudes toward a new evidence-based practice. Another limitation is the measure of "*Perceived comfort performing rapid HIV test,"* which was created for this study. Although the new measure was reliable and had good item inter-correlation and face validity when assessed by experts, it has not been used or validated in other studies.

II. PREDICTORS OF READINESS TO ORAL RAPID HIV TESTING FOR CHILEAN HEALTHCARE PROVIDERS

A. Introduction

In 2012, an estimated 32 to 39 million people worldwide were living with HIV, including 29,092 in Chile (MINSAL., 2014). In response to the country's growing AIDS epidemic, the Chilean government instituted free HIV screening using the Enzyme-Linked Immunosorbent Assay (ELISA test) and highly subsidized treatment for people who test HIV positive. While the ELISA is diagnostically accurate, the 1-2 week interval between testing and receipt of the laboratory test results has meant that some people never return for a second visit to learn their HIV status. This problem has been observed not only in Chile (Mercurio, 2009), but also many other countries (Laanani et al., 2014).

In contrast to the ELISA, the oral rapid HIV test (ORT) using a mucosal swab avoids the invasiveness of a blood draw, offers test results in 20-40 minutes as opposed to several days, and displays results without needing to send specimens to a specialized laboratory for analysis. ORT has been found to be of equal sensitivity and specificity to the ELISA in detecting HIV (CDC, 2006; Irarrazábal et al., 2013). Due to these advantages, around the world, its use has increased the number of people who get tested and become aware of their serological status (CDC, 2006; Dulce-Lemos L, 2005; Quian et al., 2005; Wesolowskia, 2006).

ORT has never been used in Chile, and no pre-implementation research has been conducted that would help to guide its adoption. The Chilean Public Institute of Health, which approves the use of new medical technology in Chile, has delayed government authorization of

ORT pending evidence that its results are diagnostically equal to the ELISA when administered within the Chilean population (Institute of Public Health, 2006). Based on recent scientific evidence of its equal parity when used in Chile (Irarrazábal et al., 2013), the Chilean government is considering offering both the ELISA and ORT.

Informed by the Advancing Research and Clinical Practice through Close Collaboration Model (ARCC) and the EBP literature, this paper examines Chilean healthcare providers' readiness to adopt ORT and the individual factors that influence this readiness. From a health systems standpoint, knowing more about the factors that influence healthcare providers' individual readiness to adopt ORT as an EBP may help to inform its successful implementation.

1. Background

Healthcare providers' readiness to adopt any EBP can be defined in terms of their beliefs about, attitudes toward, and intentions to adopt the new technology (Armenakis et al., 1993). Previous research has identified a number of factors that hinder such readiness. These deterrents include inadequate EBP knowledge and skills, perceived lack of administrative support, and lack of a belief that EBP improves patient care and health outcomes (Ciliska et al., 2011; Schaffer, 2012). Assessment of these individual-level factors can help to predict organizational success in implementing EBP (Lehman, Greener, & Simpson, 2002; Rycroft-Malone & Bucknall, 2010).

The Advancing Research and Clinical Practice through Close Collaboration Model (ARCC) incorporate both individual and organizational elements that are key to the adoption of an EBP (Ciliska, 2011). The model draws upon the principles of the

Cognitive-Behavioral Theory, which recognizes the influence of individual, social, and environmental factors on cognition, learning, emotions, and behavior (Beck et al., 1979; Ciliska et al., 2011; Lam, 2005).

This analysis of Chilean health providers' readiness to adopt ORT focuses on the individual-level factors that are one component of the ARCC model as well as findings about EBPs drawn from the literature. The outcome that is being predicted is providers' readiness to adopt ORT as an evidence-based practice. Two sets of factors presumed to be associated with providers' readiness for ORT are explored.

The first set of factors consists of personal demographic characteristics: age, gender, profession and educational background. These factors were included because they have been shown to be associated with EBP implementation in previous studies (G. Aarons & Sawitzky, 2006; Gregory Aarons et al., 2009; Plath, 2013).

The second set of factors focuses on providers' perceptions as measured by four main constructs. *EBP beliefs* are general beliefs about the value of EBP and also the provider's self-perceived ability to implement one if introduced into clinical practice. These beliefs have been shown to be crucial to implementation of a new EBP in real-world settings (Ciliska et al., 2011). Positive beliefs about EBP, however, do not guarantee the willingness to adopt a particular EBP (Titler, 2011). Therefore, factors specific to HIV testing also need to be explored as additional potential contributors. Providers' *perceived importance of HIV testing* represents the specific beliefs about HIV

testing that could influence their readiness to adopt ORT. *HIV-related stigmatization* is another factor that could impact providers' willingness to perform an HIV test, since it has been shown to influence HIV testing negatively (Myers et al., 2007; Preston et al., 1995). *Perceived comfort performing rapid HIV test* measures the degree of comfort that providers self-perceive in performing the five steps of conducting the test. A low level of perceived comfort in performing ORT may interfere with personal willingness to adopt ORT even when a provider believes in it as an EBP.

B. Methods

The study used a cross-sectional design and a self-administered, paper-based questionnaire in Spanish.

1. Participants

A convenience sample of healthcare providers was recruited from four clinics that belong to the Universidad Católica de Chile network, which is one of the largest private providers of outpatient care and ELISA testing in Santiago. Three of the sites are public facilities located in middle to low income neighborhoods (MINSAL, 2013). The fourth clinic offers private healthcare and has more medical specialties (e.g. x-rays, dermatology, minor surgeries).

The study samples nurses, midwives, and physicians as relevant healthcare providers since all three play a major role in Chile in the counseling and/or referring of patients for HIV testing. All three occupations also require a 5-7 year university degree, and this training is expected to include both course work in evidence-based practice and

also the diagnosis and treatment of HIV (PUC, 2013a, 2013b). Specially trained nurses working at specific testing sites within their healthcare clinic perform most of the facilities' HIV tests and pre-counseling. Nearly all nurses and midwives who are involved in HIV testing are certified counselors (MINSAL, 2007).

All 200 nurses, midwives and physicians practicing at the four clinics and met the inclusion/exclusion criteria were invited to participate in the study. Inclusion criteria included working as a primary care nurse, midwife or physician at one of the four clinics. Exclusion criteria included working in medical specialties, such as radiology, that do not typically refer patients for HIV testing. Of the 200 providers invited to participate, 33 declined or were unable to participate, and 17 failed to return a completed questionnaire by the agreed deadline. The final sample consisted of 150 informants.

2. Ethical considerations

Approval was obtained from the institutional review boards of the two universities involved in the study and from the individual study sites. Informed consent was obtained prior to informants completing the questionnaire. To help ensure confidentially, the questionnaires were completed anonymously without names or other personal identifiers.

3. Data collection

The data was collected between February 2014 and April 2014. Recruitment occurred at each site by explaining the study and what participation would entail during a

regularly scheduled healthcare providers' meeting. It also took place by individually approaching prospective participants who had not attended. Participants completed the consent form and questionnaire in one of two ways: (1) during sessions held at their clinics' lunch time; or (2) for those who could not attend a session, during a brief meeting when the study's details were explained and arrangements were made for the questionnaires to be completed and returned at a later date. Data collection sessions were held at noon, and participants were offered lunch as compensation for their time in completing the questionnaire. The questionnaire was self-administered and took about 15-20 minutes to complete.

4. Measures

With the exception of the EBP scale that had already been translated and tested in Spanish (Gregory Aarons et al., 2009), all of the study's instruments and measures were available solely in English. The principal investigator, who is bilingual and a Chilean, translated them into Spanish. Cognitive interviews (Drennan, 2003) were performed to validate the translation and also to assess the appropriateness of the items. Five Chilean primary healthcare providers (two nurses, one midwife, and two physicians) from a clinic other than the study sites participated in the cognitive interviews. Based on the results, two changes were made to the questionnaire. A definition of one item was added to clarify its meaning, and a synonym replaced another word for the same reason. Permission to use the *EBP beliefs* scale and the *Readiness* scale was obtained from the scales' developers.

a. Dependent variable: Readiness to adopt ORT

The *Readiness to adopt ORT scale* is based on the Brief Individual Readiness for Change instrument, which its developer has recommended should be adapted to assess readiness for any specific EBP (Goldman, 2009). The scale was modified for this study by replacing the words "addiction services" in the original version with the term "ORT." The brief version of the scale includes five items, each representing one of the 5 main areas related to readiness: (1) provider quality or characteristics, (2) motivational readiness, (3) perceived organizational support, (4) institutional resource, and (5) the belief that the change will make a difference (Backer, 1995; Goldman, 2009). Using a 5-point Likert format, respondents were asked to indicate on a scale of 0 to 4 the extent to which they "strongly agree" or "strongly disagree" with five statements related to their self-perceived readiness to implement ORT. Responses were summed from 0 through 20, with a higher score indicating greater readiness for ORT adoption ($\alpha = 0.72$).

b. Demographic characteristics

Participants were asked about four personal demographic characteristics. Age was obtained as an ordinal variable with 5 categories. Three dichotomous variables consisted of: gender (men coded as 1 and women coded as 0), profession (nurse/midwife coded as 1 and physician coded as 0), and educational background (Bachelor's degree coded as 0 and advanced degrees [Masters, PhD, Post doc] coded as 1).

c. Providers' beliefs and self-perceptions

The Evidence-Based Practice Beliefs (EBP beliefs) instrument (Melnyk et al., 2008) consists of a 5-point Likert scale asking informants if they strongly agree or strongly disagree with a series of 16 statements. The scale measures two subcomponents of participants' beliefs about adopting EBP practices: (1) their self-perceived difficulty in using and understanding EBP, and (2) their personal confidence in being able to use it. The scale was previously validated and translated in Spanish for use with nurses and was reported to have a high Cronbach's alpha of 0.86 (Thorsteinsson, 2012). The scale also demonstrated equally high internal consistency when used in this study ($\alpha = 0.86$).

The *HIV-related stigmatization scale* is an adaptation of the *Nurses' Attitudes toward AIDS Scale (NAAS)* (Preston et al., 1995). To be appropriate for use with the three occupations sampled in this study, the term "nurses" in the original version was changed wherever relevant to "nurses, midwives, and physicians." The current version (Version 2) of the scale, which has 45 items and is divided into four subscales, measures attitudes toward homosexuality, HIV and AIDS care, societal-professional concern, and IV drug abusers. Because both the stigma towards homosexuality and drug abuser subscales were not relevant to this study, they were dropped. Only the HIV and AIDS care and societal-professional concerns subscales were selected, as they directly relate to providers' care giving and HIV concerns. Each item in the subscale is scored using a Likert format, with 0 indicating "strongly agree" and 4 indicating "strongly disagree." Higher

summated scores indicate higher levels of stigma against people living with HIV. The overall internal consistency of the NAAS was high ($\alpha = 0.83$) when used by its developers. The combined Cronbach's alpha for the two subscales used in this study was acceptable ($\alpha = 0.71$).

Perceived importance of HIV testing was developed as a three-item index created specifically for this study. The items examined support for three general aspects of increased HIV testing that have been recommended by UNAIDS (2010) to stop HIV transmission. The items asked respondents to indicate if they agreed or disagreed that: (1) more HIV testing is important in Chile to prevent the spread of HIV; (2) more HIV testing is important in Chile to get people into treatment earlier; and (3) HIV testing in primary health clinics should be increased using rapid HIV testing. Respondents received one point for each item with which they agreed for a summated score of between 0 to 3 points. The higher the score, the more they felt HIV testing to be important. Internal consistency reliability is not appropriate for this type of index because the items do not represent a single dimension.

The *Perceived comfort performing rapid HIV test scale* consists of 5 items measured on a 5-point Likert scale, with responses ranging from strongly disagree (0) to strongly agree (4). These items were specifically created for this study, reviewed by an expert in HIV, and pilot tested before being used. The questions were based on prior research findings about individual barriers to the

programmatic adoption of HIV testing. The 5 items asked participants about their perceptions of how comfortable they would feel conducting pre-counseling, oral testing, finger-prick testing, giving a positive test result with post-test counseling, and giving a negative test result with post-test counseling. The finger-prick test was included in the questions because it often is contained in ORT testing kits and can be performed as a confirmatory analysis with positive ORT test results. The higher the score, the more perceived comfort that a provider felt at the prospect of performing rapid HIV test. Examination of the scale showed that the inter-item correlations were moderately high and the Cronbach's alpha for the scale was acceptable ($\alpha = 0.714$).

5. Data analysis

The data was entered, coded and analyzed using SPSS 22.0. Power calculations indicated that a sample of 150 participants was sufficient to give an 80% statistical power to detect a medium to large size effect (partial correlation of 0.25-0.50) between the independent and dependent variable within a multiple linear regression model, using five to eight explanatory variables.

The analysis was conducted in three phases. First, descriptive statistics were examined for all variables, and scale reliabilities were examined. Second, the relationship between each demographic and perception variable and readiness to adopt ORT was examined using a t-test for dichotomous variables (gender, profession educational background) and correlations for scales. Variables that were not significantly related with readiness to adopt ORT ($p<.05$) were not included in the following subsequent analysis. Third, multiple linear regression modeling was

performed. Examination of the test assumptions indicated a satisfactory level of homoscedasticity, linearity, and normality in all the variables. The regression analysis proceeded in two stages, first introducing the demographics and then adding the perception variables. A final model was created, dropping non-significant predictors.

C. Results

1. Description of the variables

Of the 150 study participants, 73.3% were women. Most of the participants (74%) belonged to the younger age group categories (≤ 39 years of age). Only 14% of the participants had earned an advanced degree (see Table I).

Results for the mean *EBP beliefs scale* score was 59.5 out of a possible range of 16 to 80.

TABLE I

DEMOGRAPHIC CHARACTERISTICS (N=150)

	Number/ Percent (%)
Gender	
Women	110 (73.3)
Men	40 (26.7)
Age	
20-29	48 (32.0)
30-39	63 (42.0)
40-49	18 (12.0)
50-59	15 (10.0)
60-70	6 (4.0)
Profession	
Physician	96 (64.0)
Nurse/Midwife	54 (36.0)
Educational background	
Bachelor degree	129 (86.0)
Master/PhD/Post doc	21 (14.0)

When examining the overall scores for individual items, perceived knowledge of how to implement EBP sufficiently in adopting a new practice scored the lowest. Many providers also indicated a lack of confidence in their ability to implement an EBP at their work place.

The mean *HIV-related stigmatization* score was 12.8 out of a possible range of 0 to 80. Although the mean stigmatization score appeared relatively low, there were two items where more than 10% of participants expressed stigmatizing attitudes when comparing responses of “agree/strongly agree” to “disagree/ strongly disagree”: (1) “ it is

comforting to know that there´s not much difference in caring for AIDS patients than caring for other terminally ill persons," disagreed with by 8% of the participants; and (2) "people living with AIDS are not dangerous to others in causal contact," agreed with by 12% (See Table II).

The mean *Perceived importance of HIV testing* score was 2.88 out of a possible range of 0 to 3. Almost 95% of the participants indicated that they agreed/strongly agreed with the importance of HIV testing. *Perceived comfort in performing rapid HIV test* had a mean score of 16.21 (possible range 0-20). Examination of each of the five comfort items revealed individual differences in how comfortable the healthcare providers felt in performing each of the five ORT testing procedures. Only 46% of the participants, however, agreed or strongly agreed that they would feel comfortable giving a positive HIV test result and conducting post-test counseling.

TABLE II

SCALES MEAN SCORES (N=150)

	Mean (SD)	Score range
EBP beliefs	59.53 (7.78)	16-80
HIV-related stigmatization	12.80 (6.67)	0-80
Perceived importance of HIV testing	2.88 (0.34)	1-3
Perceived comfort performing rapid HIV test	16.21 (4.47)	0-20
Perceived readiness to adopt ORT	14.51 (3.67)	0-20

The *Readiness to adopt ORT scale* had a mean score of 15.1 out of a possible range of 0 to 20. Of the participants, 90% believed that incorporating ORT will make a difference in their practice and were willing to commit to it for that reason; and 60% perceived having sufficient organizational support to do so. Nearly 14%, however, perceived a lack of sufficient organizational support for the successful implementation of ORT, and 24.7% selected the "neutral" category.

2. Bivariate relationships between *Readiness to adopt ORT* and demographics and perception factors

When examining demographic and perception factors associated with *readiness to adopt ORT*, seven out of eight possible explanatory variables were significantly associated. Using comparisons of means and t-tests, three demographic characteristics – gender, profession, and education – were significantly related with readiness to adopt ORT, while age was not (see Table III). All four provider perception variables were significantly correlated (see Table IV). Perceived comfort performing rapid HIV test had a moderately high correlation ($r = -0.50$). The remainder was lower ($r = 0.25$). Since all the perception variables were statistically significant, they were entered into an initial multivariate analysis. Of the demographic characteristics, only age was excluded.

3. Multiple linear regression: Readiness to adopt ORT

A stepwise multivariate regression analysis was performed based on the conceptual model. The first step examined demographic factors only, showing that 17.3% of the variation was explained by them. In this step, only gender was not

significantly related to readiness. In the second step, the providers' perception factors were included. In this model, 43.7% of the variance was explained, showing a substantial increase in explained variance when provider perception variables were added. Only one variable, *HIV-related stigmatization,* was not significantly associated with readiness.

TABLE III

DEMOGRAPHIC FACTORS AND READINESS TO ADOPT ORT (N =150)

	Readiness to adopt ORT Score		
	Mean	SD	p-value
Gender			0.041
Men	15.4	2.8	
Women	14.3	3.4	
Age			0.86
20-39	15.8	4.4	
40-70	17.3	4.4	
Profession			0.001
Nurses/Midwives	16.6	2.9	
Physicians	14.3	2.7	
Educational background			0.001
University degree	15.5	2.9	
Advanced degree *(Master, PhD, Post doc)*	13.0	3.0	

A final model was created, dropping the two variables (gender and *HIV-related stigmatization*) that did not contribute to explaining readiness for ORT. The final model was statistically significant ($F(5,149) = 22.275$, $p < .0001$) and explained 43.6% of the variance in readiness to adopt ORT (See Table V).

TABLE IV

CORRELATION BETWEEN PROVIDERS' PERCEPTION FACTORS AND READINESS TO ADOPT ORT (N =150)

Variables	Pearson Correlation (r)
EBP beliefs	0.17*
HIV-related stigmatization	-0.18*
Perceived importance of HIV testing	0.19*
Perceived comfort to perform ORT	-0.50**

Dependent variable: *Readiness to adopt ORT* **p<.01 *p<.05

The predictor with the highest contribution to the explained variation (standardized beta) in the final multiple linear regression model was *Perceived comfort performing rapid HIV test* (β = .40, p< 0.001). Participants who reported higher *Perceived comfort performing rapid HIV test* had higher readiness to adopt ORT. In addition, higher readiness to adopt ORT was associated with both a higher level of EBP beliefs (B = .07, β=0.19, p<0.05) and a higher *Perceived importance in HIV testing* (B = 1.29, β=0.15, p<0.05,). Participants with advanced education had significantly lower readiness scores (B = -1.8, β =-0.21, p<0.001) than those with only a Bachelor's degree.

D. Discussion

Comparing the mean score of this study's readiness to ORT scale to means in other studies is difficult because results from its use have only been reported in the literature in terms of the scale's initial validation (Goldman, 2009). Nonetheless, participants in this study appear ready to implement ORT based on its high overall scoring. Examination of each individual item of the *Readiness to adopt ORT scale,* however, revealed that 40% of the participants perceived

not having adequate organizational support to successfully implement ORT. This finding suggests the importance of organizations assessing what providers perceive is needed for success before introducing ORT as an EBP.

Self-perceived comfort in performing ORT was the strongest predictor of readiness for its adoption as measured by the *Perceived comfort performing rapid HIV test scale.* Major concerns among those who reported lesser readiness was due to a low reported sense of comfort in conveying a positive result and also in providing post-test counseling. These findings are similar to findings from other studies (Chesney & Smith, 1999; Myers et al., 2007). Possibly offering staff training in delivering both EBPs and ORT, especially in giving positive test results and post-test counseling with the latter, might enhance the comfort for those for whom this is a challenge.

TABLE V

MULTIPLE LINEAR REGRESSION MODEL TO PREDICT PERCEIVED COMFORT PERFORMING RAPID HIV TEST

	Model 1					Model 2					Final Model				
				95% CI					95% CI					95% CI	
Variables	B	SE	β	Lower	Upper	B	SE	β	Lower	Upper	B	SE	β	Lower	Upper
(Constant)	14.78**					14.8**					14.7**				
Demographics															
Gender: if male	-0.27	0.54	0.04	-1.3	0.8	- 0.2	0.46	0.03	-0.77	1.00					
Profession: if nurse/midwife versus physicians,	1.87**	0.51	0.29	0.9	2.9	1.9**	0.44	0.31	1.01	2.69	2.0**	0.42	0.32	1.18	2.84
Education: if has advanced degrees	-1.75*	0.68	-0.20	-3.1	-0.4	-1.8**	0.57	-0.21	-2.93	-0.76	-1.8**	0.57	-0.21	-2.94	-0.71
Individual Perception															
HIV-related stigmatization						0.01	0.03	0.03	0.06	.04					
EBP beliefs						.072*	0.03	0.19	0.02	0.13	.07*	0.03	0.19	0.02	0.12
Perceived importance for HIV Testing						1.12*	0.58	0.14	-0.11	0.13	1.29*	0.57	0.15	0.17	2.40
Perceived comfort performing rapid HIV test						.33**	0.06	0.40	0.22	0.44	0.31**	0.05	0.40	0.23	0.44
R^2	0.173					0.437					0.436				
R^2 change						.265									
Sig F. Change	0.00					0.00					0.00				

**p<.01*p<.05 Dependent variable: *Readiness to adopt ORT*

Model 1: Demographic variables

Model 2: Individual perception and demographics

Further understanding of what influences healthcare providers' perceived comfort to perform ORT is needed. The demographic characteristics were the second highest significant predictors of readiness for ORT. As they are highly correlated with each other, it is difficult to determine which, if any, of these variables is more highly associated with readiness to adopt ORT than others. Professional occupation proved a strong predictor of readiness to adopt ORT, with nurses/midwives expressing greater readiness to adopt this technology. This association may reflect differences in the clinical roles of nurses/midwives and physicians. Nurses and midwives are directly involved in ELISA testing procedures, while physicians are more likely to be involved solely in referrals for testing. Consequently, they may feel less ready. Meanwhile, higher education was negatively related to readiness which is contrary to the usual findings that education is positively associated with EBP. This finding may be spurious because of the lack of advanced degrees among nurses/midwives and the different clinical roles of physicians with advanced degrees in directly administering HIV tests.

Regarding *EBP beliefs*, the participants only had a moderate commitment to EBP when using the scoring criteria of the scale developers (Melnyk et al., 2008). Possibly training staff on the merits of an EBP could improve this outlook. Also, experience in actually implementing an EPB may help.

The last significant predictor in the final model was *Perceived importance of HIV te*sting. The findings suggest that participants endorsed WHO's recommendations (2012) for increased HIV testing and also for ORT use so that more people learn of their HIV serologic status and are referred to appropriate care if needed (Delaney et al., 2006; Spielberg et al., 2005).

E. Limitations

A limitation to this study's generalizability is that the sample was recruited from four clinics belonging to a university hospital network. Consequently, the sample may have more favorable attitudes towards EBP and ORT because they work in a university healthcare system. Results from providers employed at community-based facilities may differ. The possibility also exists of social desirability bias. Healthcare providers may feel pressure to express positive attitudes toward a new evidence-based practice like ORT.

Another limitation was the failure to ask about country of origin and length of time in Chile, because it was found when conducting the study that many providers came from other countries. This difference may affect providers' education, familiarity with EBP and attitudes about HIV, including stigmatization. Future studies should include these factors as additional possible explanations of provider readiness to adopt ORT.

F. Conclusion

This is the first pre-implementation study in anticipation of the possible introduction of ORT in Chile. The findings from this dissertation contribute important information about Chilean healthcare providers' readiness in adopting ORT. The ARCC model was useful in understanding the factors that contributed to readiness for ORT, adding further evidence that this model is a robust approach to guide evaluation of readiness to introduce new EBPs. *Perceived comfort performing rapid HIV test* is a predictor that the principal investigator added to the model. It was the most important predictor of readiness to adopt ORT, suggesting that providers' level of comfort performing any new EBP is an important factor that should be added

to the assessment of readiness in the ARCC model. Providers' comfort is also important in a practical way because it has the potential to be improved through training.

Results of this study can be used by stakeholders or policy makers as an initial step to increase readiness for ORT among providers in Chile. A successful nationwide implementation of ORT in Chile offers many benefits, such as increased capacity to reach the entire Chilean population, including its most geographically isolated areas that may have difficult access to laboratory facilities.

III. HEALTHCARE PROVIDERS' PERCEIVED COMFORT PERFORMING RAPID HIV TEST

A. Introduction

In Chile, although the adult HIV prevalence rate is 8.6 cases per 100,000, rates are substantially higher among certain high risk groups (e.g. men who have sex with men) and increase in certain regions, including the Metropolitan region where Santiago, the capital city of Chile, is located (MINSAL, 2012). This region alone reported an HIV rate of 25.1 per 100,000 inhabitants in 2012 (MINSAL, 2012). Therefore, the national strategy for 2011-2020 is to increase HIV testing and early referral to care (MINSAL, 2012). The Ministry of Health (MINSAL) offers HIV testing, but only the Enzyme-Linked Immunosorbent Assay (ELISA) test is available. The long wait for results can discourage people from getting their results. Between 2004 and 2008, 10% of people who tested HIV-positive failed to return for their results (Irarrazábal et al., 2013; MINSAL, 2012). Not returning for ELISA test results has also been a well-documented problem in other countries (Wesolowskia, 2006).

One strategy for increasing HIV testing, which has been endorsed by UNAIDS, is the use of oral rapid HIV test (ORT), which offer many advantages. The test can be performed orally or through finger-prick. It is inexpensive, provides results within 20-40 minutes, and facilitates early referral for medical care when necessary (Galbraith, 2013; San Antonio-Gaddy et al., 2006; Zelin et al., 2008). Also, it is perceived by both healthcare providers and clients as less physiologically invasive and less painful, especially when using an oral swab (Irarrazábal et al., 2013; Zelin et al., 2008). ORT as an alternative to the ELISA has increased the number of

people in the U.S. and in other countries who know of their HIV serological status (CDC, 2006; Dulce-Lemos L, 2005; Quian et al., 2005; Wesolowskia, 2006; WHO, 2012).

Because of the many advantages of ORT, MINSAL is considering the adoption of ORT as an alternative to the ELISA test. Prior to adopting ORT in Chile, one important aspect of preparation for implementation is evaluating the degree of comfort healthcare providers feel using ORT. No published study about perceived comfort performing rapid HIV tests has been done in Chile. In an unpublished article that examined readiness for ORT among healthcare providers in Chile, the strongest predictor of readiness for ORT was perceived comfort performing rapid HIV tests. This paper examines healthcare providers' perceived comfort performing rapid HIV tests and the factors that relate to it.

Before adoption of any new technology, experts recommend identifying any barriers or resistance to implementation (De Veer, Fleuren, Bekkema, & Anneke, 2011). According to Titler (2011), healthcare providers often are reluctant to adopt a new approach in clinical settings when they have insufficient knowledge about it, doubts regarding the effectiveness of its use in their workplace, and concerns regarding the added time that performing the new practice may require. Several studies of ORT implementation worldwide showed healthcare providers' experience with barriers, including their willingness to provide the test, their perceived need for adequate training, discomfort in disclosing a positive HIV test result, and fear of being stigmatized through association with HIV treatment and care (Christopoulos et al., 2011; David D. Nassry et al., 2012; Delaney et al., 2006; Manirankunda, Loos, Debackaere, & Nöstlinger, 2012; Wakjira Kebede, Fikru Keno, Temesgen Ewunetu, & Mamo, 2014).

Healthcare providers' perceived comfort performing rapid HIV tests can be conceptualized as an aspect of self-efficacy. Perceived self-efficacy is defined as people's beliefs about their capabilities to perform specific behaviors, such as ORT (Bandura, 1994). According to Bandura's Social Cognitive Learning theory, self-efficacy can be increased through mastery experiences such as role modeling and rehearsal with feedback (Bandura, 1997).

The purpose of this study is to identify the degree of perceived comfort in performing ORT among healthcare providers in Chilean healthcare clinics, and to examine the factors that relate with greater perceived comfort in performing rapid HIV tests.

B. Methods

1. Setting

A convenience sample of four clinics was selected because they are part of the network of the Catholic University of Chile, with which the principal investigator is affiliated. This health network is one of the largest private providers in Santiago for outpatient care and HIV testing. Three of these sites are located in middle to low income neighborhoods south of Santiago, providing care for patients who belong to the Chilean public health system (MINSAL, 2013). The fourth site is a teaching healthcare center, serving clientele utilizing a private healthcare model that includes medical specialties such as radiology, dermatology, and minor surgery.

2. Study population and data collection

Participants' inclusion criteria included working at the selected centers as a nurse, midwife or physician. Providers working in medical specialties, such as radiology, that

do not typically refer patients for HIV testing were excluded. The sample consisted of nurses, midwives and physicians, who play a major role in counseling and/or referring patients for HIV testing. There were 200 eligible providers at the four clinics, and they were all invited to participate. A total of 150 of these providers participated, yielding a 75% response rate.

The data collection began after approval was obtained from the institutional review boards of the two universities involved in the study and from the study site. Healthcare providers were either recruited during a staff meeting or approached individually if they missed the meeting. Those who wanted to participate completed a consent form and anonymous questionnaire in Spanish either: (1) at a session held during their clinic's lunch period; or (2) during a brief meeting, at which time the study's details were explained and arrangements were made for the questionnaires to be completed and returned at a later date.

3. Measures

Because the study measures were available only in English, they were translated into Spanish by the principal investigator, who is bilingual and a Chilean. To validate the translation, cognitive interviews were performed (Drennan, 2003). Five Chilean primary healthcare providers (two nurses, one midwife, and two physicians) from a clinic other than the study sites participated in the cognitive interviews. Based on the results, two changes were made in the questionnaire. A definition of a word was added to one question, and a synonym was used to replace another word. The questionnaire was self-administered and took about 15-20 minutes to complete.

a. Dependent variable

The *Perceived comfort performing rapid HIV test* scale was specifically created for this study. Items asked participants how comfortable they would feel performing each step involved in ORT: pre-counseling, oral testing and finger-prick rapid test, giving a positive test result with post-counseling, and giving a negative test result with post-counseling. The finger-prick test was included because the ORT kit includes both oral and finger-prick tests, and in at least one country (Malawi), the finger-prick rapid test is used as a confirmatory test after an oral positive result (Talumba et al., 2011). The five items were measured on a 5-point Likert scale ranging from strongly disagree (0) to strongly agree (4). The possible total score ranges from 0 to 20 points. The higher the score, the more *perceived comfort performing rapid HIV test.* The items had good inter-item correlations and reliability ($\alpha = 0.72$). Before being used in the study, items were reviewed by an expert and cognitive interviews were conducted to establish content validity and comprehensibility.

b. Independent variables

Demographic characteristics included age, which was measured using five categories. In addition, three dichotomous variables consisted of: gender (men coded as 1 and women coded as 0), profession (nurse/midwife coded as 1 and physician coded as 0), and educational background (Bachelor's degree coded as 0 and advanced degrees [Masters, PhD, Post doc] coded as 1). Participants were asked to select their highest achieved educational degree.

HIV-related stigmatization was measured using two subscales of the *Nurses' Attitudes toward AIDS Scale (NAAS)*, version 2 (Preston et al., 1995). The scale was modified to apply to all participants by adding the word "midwives" and "physicians" to the questions. The original scale, which has 45 items and is divided into four subscales, measure attitudes towards homosexuality, HIV/AIDS care, societal-professional concerns, and injection drug abusers. Each item was scored on a 5-point Likert scale ranging from strongly agree (0) to strongly disagree (4). Higher scores indicated higher levels of stigma against people living with HIV. Only the HIV/AIDS care and societal-professional concern subscale were used because they related to providers' direct caregiving and HIV concerns. The overall Cronbach alpha result for the two subscales was acceptable ($\alpha = 0.72$).

4. Statistical analysis

The data was entered, coded and analyzed using SPSS 22.0. Each variable was examined using descriptive analysis. The demographic differences between nurses/midwives and physicians were examined. Next, bivariate correlation analysis examined the relationships between each personal characteristic and *HIV-related stigmatization* with the *Perceived comfort performing rapid HIV test* scale and its individual items. Results of the bivariate analysis were used to eliminate items not significantly correlated ($p<.05$) with *Perceived comfort performing rapid HIV test.* Finally, a multiple linear regression model was performed. Examination of the test assumptions before the analysis indicated a satisfactory level of homoscedasticity, linearity, and normality for the variables used in the multiple linear regression analysis. A post-hoc power analysis indicated that a sample of 150 participants was sufficient to give an 80% statistical power to detect a medium to large sized effect (partial correlation of 0.25-0.50) between the independent and dependent variables within a multiple linear regression model using only 3 explanatory variables: age, profession, and *HIV-related stigmatization.*

C. Results

1. Independent variables

The demographic characteristics were examined first (Table 1) and found to be highly interrelated. Among physicians, 38% were male compared to only 7% of the nurse/midwives. Twenty one percent of the physicians, compared to only 2% of nurse/midwives, had advanced degrees. Age, however, did not differ by profession. Nearly three-quarters of both physicians and nurse/midwives were under 40 years old.

The mean *HIV-related stigmatization* score was 12.8 (SD 0.7; possible range of 0-80). To determine where stigma was the strongest, individual stigma items were examined by combining "agree" with "strongly agree" into one category and "strongly disagree" and "disagree" into another category. The four items that had the highest level of stigmatization were as follows: 18% disagreed that "it is comforting to know that there isn't much difference in caring for AIDS patients that caring for other terminally ill persons;" 12% disagreed that "persons living with AIDS are not dangerous to others in causal contact (e.g. give hands, a hug);" 6.7% agreed

TABLE I

DEMOGRAPHIC CHARACTERISTICS (N=150)

	Percent (%)
Gender	
Women	73.3
Men	26.7
Age	
20-29	32.0
30-39	42.0
40-49	12.0
50-59	10.0
60-70	4.0
Profession	
Physician	64.0
Nurse/Midwife	36.0
Educational background	
Bachelor degree	86.0
Master/PhD/Post doc	14.0

that "I don't have enough information to protect myself at my workplace;" and 5.3% agreed that "public school officials should not be required to accept an AIDS child into classes."

2. Dependent variable: Perceived comfort performing rapid HIV test

Perceived comfort performing rapid HIV test had a mean score of 16.21 (SD 4.47; possible range of 0-20). Individual items were examined to identify how comfortable healthcare providers felt in performing each of the steps in ORT. More than 60% of the participants agreed or strongly agreed that they would feel comfortable doing four of the five steps of ORT testing. However, a substantial percentage of the participants were not sure or did not feel comfortable performing ORT procedures (Table 2). For one item, giving a positive test result and doing a post-test counseling, only 46% of the participants felt they agree or strongly agree they would feel comfortable.

3. Association between predictors and perceived comfort performing rapid HIV test

None of the demographic characteristics were significantly correlated with *Perceived comfort performing rapid HIV test*, but the *HIV-related stigmatization* scale was significantly correlated ($r = -0.221$, $p<0.001$). Correlations were also examined between the predictors and individual items of the scale. Profession was significantly associated with three of the five items. Nurses/midwives reported more comfort in performing an oral HIV rapid test ($r = 0.203$, $p<0.05$) and performing a finger-prick test ($r = 0.233$, $p< 0.001$) while physicians reported more comfort giving a positive test result and post-test counseling ($r = -0.170$, $p <0.05$). Age was associated with one of the five

items. Younger participants were found to be more comfortable performing a finger-prick test ($r = -0.197$, $p<0.05$). Neither education nor gender was associated with any of the items. *HIV-related stigmatization* was negatively associated with three of the five items. Higher *HIV-related stigmatization* was associated with lower perceived comfort performing pre-test counseling ($r = -0.192$, $p<0.05$), finger-prick testing ($r = -0.217$, $p<0.001$), and giving a positive test result with post-test counseling ($r = -0.20$, $p<0.05$). (See Table 3).

4. Multiple linear regression analysis: Perceived comfort performing rapid HIV test

Three variables (age, profession and *HIV-related stigmatization*) were included in a multiple linear regression analysis to predict *Perceived comfort performing rapid HIV test*. Gender and education were dropped because they showed no association with the dependent variable. The overall model was statistically significant: $F(3) = 198.3$, $p <.001$ and explained 7.2% of the variance in the dependent variable of *Perceived comfort performing rapid HIV test*

The strongest predictor was *HIV-related stigmatization* ($\beta = -0.212$, $p=0.009$).

D. Discussion

The *Perceived comfort performing rapid HIV test* scale created for this study has good content validity and psychometric properties, and is a useful instrument for future studies. Even though most of the healthcare providers expressed comfort performing rapid HIV test, a sizable group of providers were not comfortable doing specific procedures and the majority of providers

did not think they would feel comfortable giving a positive test result with post-test counseling. Thus, provider training is needed for all of the steps in ORT, including finger-prick. These findings are congruent with other studies that found giving a positive HIV test result was a barrier among healthcare providers when implementing an oral rapid HIV test program at their facilities (Christopoulos et al., 2011; Nassary et al., 2012; Manirankunda et al., 2012; Kebede et al., 2014).

Stigmatizing attitudes were negatively related to perceived comfort performing rapid HIV test. This is not surprising since providers who have stigmatizing attitude toward a group are likely to feel less comfortable interacting with them. WHO and UNAIDS affirm that fear of being stigmatized by healthcare providers impedes the increase of voluntary HIV testing (UNAIDS, 2010; WHO, 2012; WHO, 2005).

TABLE II

PERCEIVED COMFORT PERFORMING RAPID HIV TEST, INDIVIDUAL ITEMS IN PERCENT (%) (N=150)

	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree
Q.1 Would you feel comfortable doing rapid HIV pre-test counseling?	2.0	4.0	18.0	37.3	38.7
Q.2 Would you feel comfortable doing an oral HIV rapid test?	0.7	4.0	13.3	36.0	46.0
Q.3 Would you feel comfortable performing the finger-prick test?	2.0	10.0	20.7	34.7	32.7
Q.4 Would you feel comfortable giving a positive result from a rapid test and doing the post-test counseling?	6.0	22.0	26.0	32.7	13.3
Q.5 Would you feel comfortable giving a negative result and post-test counseling?	2.0	4.7	12.0	44.0	37.3

A previous study in Chile also found HIV-related stigmatizing attitudes among healthcare providers (Cianelli et al., 2011). These findings are also congruent with the reports by Chilean people living with HIV that healthcare providers stigmatize them (Vidal & Santana, 2005). It is of concern that stigmatization related with HIV continues to be found among healthcare providers in Chile, particularly because they are expected to be role models of HIV prevention and non-stigmatizing care (Mukherjee & Eustache, 2007).

TABLE III

PEARSON CORRELATION BETWEEN INDIVIDUAL CHARACTERISTICS, HIV-RELATED STIGMATIZATION
AND PERCEIVED COMFORT PERFORMING RAPID HIV TEST ITEMS (N=150)

Items of *Perceived comfort performing rapid HIV test* scale	Profession (r)	Age (r)	Education (r)	Gender (r)	HIV-related stigmatization (r)
Total Score: *Perceived comfort performing rapid HIV test*	.063	-.149	-.045	-.046	-.221**
Q.1 Would you feel comfortable doing rapid HIV pre-test counseling?	.035	-.046	.073	-.090	-.192*
Q.2 Would you feel comfortable doing an oral HIV rapid test?	.203*	-.141	-.039	-.139	-.130
Q.3 Would you feel comfortable performing the finger-prick test?	.233**	-.214**	-.130	-.063	-.217**
Q.4 Would you feel comfortable giving a positive result from a rapid test and doing the post-test counseling?	-.170*	-.058	-.023	.133	-.090
Q.5 Would you feel comfortable giving a negative result and post-test counseling?	-.036	-.098	-.044	-.049	-.200*

Significant values * p<.05 **p< 0.05

TABLE IV

MULTIPLE-LINEAR REGRESSION ANALYSIS: PERCEIVED COMFORT PERFORMING RAPID HIV TEST

				95% CI		
Variable	B	SE	β	Lower	Upper	P-value
(Constant)	16.684	.822		15.060	18.309	<.001
Age	-.489	.268	-.146	-1.020	.041	.070
Profession[a]	.442	.610	.058	-.763	1.647	.470
HIV-related stigmatization	-.102	.038	-.212	-.177	-.026	.009
R^2	0.072					

Dependent variable: Perceived comfort performing rapid HIV test
[a] Ref., profession: if nurse/midwife versus physicians

This finding highlights the need to address HIV-related stigmatization among healthcare providers so they can be truly comfortable performing ORT. Reducing stigmatization among providers is aligned with Chilean government policies and law (National Library of the Congress in Chile, 2011).

Healthcare providers under 40 had greater comfort performing ORT compared to older providers. One possible reason for this is that EBP has only recently been emphasized in healthcare provider training.

Only a small proportion of the variance in comfort was able to be explained with the factors in this study. Future research should look at additional factors, such as actual experience and training as a counselor.

One limitation of this study is that it examines only factors related to individual providers. Further pre-implementation research needs to explore organizational factors, including resources and administrative support (Christopoulos et al., 2011).

ORT has yet to be adopted in Chile, but it holds great promise for improving HIV testing and early entry into care. The findings of this study can be used by stakeholders and policymakers to help increase perceived comfort performing rapid HIV test among healthcare providers, an essential component necessary to adopting ORT in Chile. In the current system using the ELISA test in Chile, clinic providers may do pre-test counseling but giving the test results and post-test counseling usually occur at the central laboratory where people go to receive their results (Chile, 2009; MINSAL, 2014). Thus, adopting ORT involves a major change in clinic providers' roles. Appropriate training can be developed based on Bandura's Social Cognitive Learning theory, which recommends role modeling and rehearsal to increase the level of comfort for performing new tasks (Bandura, 1986). Pre-implementation research, such as this study, can make future adoption of ORT more rapid and cost effective.

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APPENDICES

APPENDIX A: IRB APPROVAL LETTER

UNIVERSITY OF ILLINOIS
AT CHICAGO

Office for the Protection of Research Subjects (OPRS)
Office of the Vice Chancellor for Research (MC 672)
203 Administrative Office Building
1737 West Polk Street
Chicago, Illinois 60612-7227

Exemption Determination
Amendment to Research Protocol – Exempt Review
UIC Amendment # 2

March 6, 2014

Lisette Paola Irarrazabal, MS
Health Policy and Administration
Community Health Sciences
1603 W Taylor, M/C 923
Chicago, IL 60612
Phone: (708) 205-4668

RE: Protocol # 2013-1240
"Barriers and Facilitators for Readiness to Oral Rapid HIV Testing, as an Example of Evidence-Based Practice in Chile"

Dear Ms. Irarrazabal:

The OPRS staff/members of Institutional Review Board (IRB) #2 have reviewed this amendment to your research, and have determined that your research protocol continues to meet the criteria for exemption as defined in the U. S. Department of Health and Human Services Regulations for the Protection of Human Subjects [(45 CFR 46.101(b)].

The specific exemption category under 45 CFR 46.101(b) is:
(2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

You may now implement the amendment in your research.

Please note the following information about your approved amendment:

APPENDIX A: IRB APPROVAL LETTER (continued)

Exemption Period: **March 6, 2014 – March 6, 2017**
Amendment Approval Date: March 6, 2014
Amendment:

Summary: UIC Amendment #2 dated February 26, 2014 and submitted on February 27, 2014 is an investigator-initiated amendment involving revised survey instruments based on pilot testing feedback.

The amendment includes:
1) Questionnaire English Version 3.0; 2/26/2014
2) Questionnaire Spanish Version 4.0; 2/26/2014

You are reminded that investigators whose research involving human subjects is determined to be exempt from the federal regulations for the protection of human subjects still have responsibilities for the ethical conduct of the research under state law and UIC policy. Please be aware of the following UIC policies and responsibilities for investigators:

1. Amendments You are responsible for reporting any amendments to your research protocol that may affect the determination of the exemption and may result in your research no longer being eligible for the exemption that has been granted.

2. Record Keeping You are responsible for maintaining a copy all research related records in a secure location in the event future verification is necessary, at a minimum these documents include: the research protocol, the claim of exemption application, all questionnaires, survey instruments, interview questions and/or data collection instruments associated with this research protocol, recruiting or advertising materials, any consent forms or information sheets given to subjects, or any other pertinent documents.

3. Final Report When you have completed work on your research protocol, you should submit a final report to the Office for Protection of Research Subjects (OPRS).

4. Information for Human Subjects UIC Policy requires investigators to provide information about the research protocol to subjects and to obtain their permission prior to their participating in the research. The information about the research protocol should be presented to subjects in writing or orally from a written script. When appropriate, the following information must be provided to all research subjects participating in exempt studies:

   a. The researcher's affiliation; UIC, JB VAMC or other institutions,
   b. The purpose of the research,
   c. The extent of the subject's involvement and an explanation of the procedures to be followed,
   d. Whether the information being collected will be used for any purposes other than the proposed research,

APPENDIX A: IRB APPROVAL LETTER (continued)

e. A description of the procedures to protect the privacy of subjects and the confidentiality of the research information and data,
f. Description of any reasonable foreseeable risks,
g. Description of anticipated benefit,
h. A statement that participation is voluntary and subjects can refuse to participate or can stop at any time,
i. A statement that the researcher is available to answer any questions that the subject may have and which includes the name and phone number of the investigator(s).
j. A statement that the UIC IRB/OPRS or JB VAMC Patient Advocate Office is available if there are questions about subject's rights, which includes the appropriate phone numbers.

Please be sure to:

→Use your research protocol number (2013-1240) on any documents or correspondence with the IRB concerning your research protocol.

We wish you the best as you conduct your research. If you have any questions or need further help, please contact me at (312) 355-2908 or the OPRS office at (312) 996-1711. Please send any correspondence about this protocol to OPRS at 203 AOB, M/C 672.

Sincerely,

Charles W. Hoehne, B.S., C.I.P.
Assistant Director
Office for the Protection of Research Subjects

cc: Jack Zwanziger, Health Policy and Administration, M/C 923
Judith A. Levy, Health Policy and Administration, M/C 923

APPENDIX B: INVITATION LETTER FOR PILOT (English)

BARRIERS AND FACILITATORS FOR READINESS TO ORAL RAPID HIV TESTING, AS AN EXAMPLE OF EVIDENCE-BASED PRACTICE IN CHILE

Invitation Letter Script – Pilot

Dear Mr. /Mrs. /Ms. (name)_____ Date_____

My name is Lisette Irarrázabal, a PhD student at the University of Illinois at Chicago and faculty at the school of nursing at the Universidad Católica de Chile. I would like to invite you to participate in piloting a questionnaire I will use in a study I am conducting with nurses, midwives, and physicians at clinics in Santiago called "beliefs and perceptions of evidence-based practice (EBP) and oral rapid HIV testing as a specific EBP among healthcare workers." This study is part of my doctoral studies.

I am sending you this letter because you are a nurse, midwife or physician working at a healthcare clinic in Santiago. If you agree to participate in this research project to the questionnaire, you will have to attend one meeting that will last 1 hour and 30 minutes to answer a questionnaire that is self-administered, takes approximately 15-20 minutes, and asks about evidence-based practice at the clinic, perceived organizational culture, attitude towards HIV, and attitude toward oral HIV rapid test. After the questionnaire, you will be asked to comment on the content, format and wording of the questionnaire and to identify any needed improvements in the past section. You will also be asked to comment on the timing and overall quality of the instrument.

Your participation is voluntary and you will be part of a group of 5 more people. Although we ask everyone in the group to respect everyone's privacy and confidentiality, and not to identify anyone in the group or repeat what is said during the group discussion, please remember that other participants in the group may accidentally disclose what was said.

To compensate your time we will offer you $ 10 USD as a gift card to JUMBO supermarket. Attending to the meeting implies you consent to participate.

The meeting will be held at _____.
If you have any questions or concerns regarding the piloting of the questionnaire, please email lirarr2@uic.edu.

Cordially,

Lisette Irarrázabal RN, MS, PhD candidate
Universidad Católica de Chile

University of Illinois at Chicago

APPENIDX B: INVITATION LETTER FOR PILOT (Spanish)

BARRERAS Y FACILITADORES PARA LA PREPARACION DEL TEST RAPIDO ORAL PARA VIH, COMO UN EJEMPLO DE PRACTICA BASADA EN LA ENVIDENCIA EN CHILE

Carta de invitación al Pilotaje del Cuestionario

Estimado Sr. Sra. (name)_____ Fecha_____

Mi nombre es Lisette Irarrázabal, soy profesora de la Escuela de Enfermería de la Universidad Católica de Chile y estudiante de doctorado en la Universidad de Illinois en Chicago. Me gustaría invitarlo a participar en el pilotaje de un cuestionario que voy a usar en una investigación que voy a realizar con enfermeras, matronas y médicos que trabajan en centros de salud en Santiago. La investigación se llama "Barreras y facilitadores para la preparación del test rápido oral para VIH, como ejemplo de practica basada en la evidencie en Chile." Esta investigación es parte de mi estudio doctoral.

Le estoy enviando esta carta de invitación a participar en el pilotaje de este cuestionario porque usted es una enfermera, matrona o médico que trabaja en un centro de salud en Santiago. Si acepta participar en el pilotaje tendrá que asistir una vez a una reunión de 1 horas y 30 minutos donde contestara un cuestionario que es auto administrado, que toma alrededor de 15-20 minutos completarlo. El cuestionario preguntara sobre práctica basada en la evidencia, percepción de la cultura organizacional, actitud hacia el VIH y el test rápido oral para VIH. También se le pedirá que comente sobre el contenido, formato y formulación del cuestionario para identificar si hay necesidad de mejorar alguna parte de este.

Su participación es voluntaria, usted será parte de un grupo de 5 personas. Aunque pedimos a todos los del grupo ha de respetar la privacidad y la confidencialidad de todos, y no identificar a cualquier persona en el grupo o repetir lo que se dijo durante la sesión, por favor recuerde que no podemos asegurar que otros participantes en el grupo pueden revelar accidentalmente lo que se dijo.

Para compensar su tiempo le vamos a dar una tarjeta del supermercado Jumbo con el valor de $5,000 pesos para su libre disposición. El asistir a la reunión implica que usted ha consentido participar en el pilotaje.

La reunión se realizara en _____ a las _____hrs. Si tiene alguna pregunta o preocupación sobre este pilotaje por favor escríbame al correo lirarr2@uic.edu.

Atentamente,

Lisette Irarrázabal RN, MS, PhD candidate
Universidad Católica de Chile

University of Illinois at Chicago

APPENDIX C: RESEARCH FLYER (English)

UIC
UNIVERSITY OF ILLINOIS
AT CHICAGO

BARRIERS AND FACILITATORS FOR READINESS TO ORAL RAPID HIV TESTING, AS AN EXAMPLE OF EVIDENCE-BASED PRACTICE IN CHILE

REMINDER

If you are a nurse, midwife or physician at this clinic and are signed up to participate in the evidence-based practice and oral rapid HIV testing study, please remember the date on which you agreed to complete the questionnaire.

When? **1.- _____, 2014**

2.- _____, 2014

3.- _____, 2014

Where? at room _____

What time? during your lunch at _____ PM.

Lunch will be provided for those who answer the questionnaire. Please remember that it is a self-administered and anonymous questionnaire that will take 15-20 minutes to complete.

If you have not yet signed up and are interested, please contact us : email **lirarr2@uic.edu** or call **56-2-3545837**

APPENDIX C: RESEARCH FLYER (Spanish)

UIC
UNIVERSITY OF ILLINOIS
AT CHICAGO

BARRERAS Y FACILITADORES PARA LA PREPARACION DEL TEST RAPIDO ORAL PARA VIH, COMO UN EJEMPLO DE EVIDENCIA BASADA EN LA PRACTICA EN CHILE

RECORDATORIO

Si es una enfermera, matrona o médico de este centro de salud y se ha inscrito para hacer el cuestionario sobre practica basada en la evidencia y test rápido oral para VIH.
Por favor recuerde la fecha en la cual usted acordó contestar el cuestionario.

¿Cuando? **1.- _____, 2014**
2.- _____, 2014
3.- _____, 2014

¿Dónde? sala _____

¿A qué hora? durante hora de almuerzo a las_____hrs. Almuerzo será provisto para aquellos que respondan el cuestionario. Recuerde que el cuestionario es anónimo, auto administrado y tomara alrededor de 15 a 20 minutos contestarlo.

Si todavía no se ha inscrito y está interesado, por favor contáctenos: email **lirarr2@uic.edu** o llámenos al fono **56-2-3545837**

APPENDIX D: CONSENT FORM FOR PARTICIPANTS OF MAIN STUDY (English)

"Barriers and Facilitators to Readiness to Oral rapid HIV testing as a specific Evidence-Based Practice in Chile"

A research Project of the University of Illinois at Chicago

Principal Investigator: Lisette Irarrázabal, MS

Consent form for Nurses, Midwife and Physicians to Participate in the Study

You are being asked to participate in the research study because you work at the clinic and are a nurse, midwife or a physician. This study is about identifying the barriers and facilitator factors to Evidence-Based Practice (EBP) and the association of it, with readiness to oral rapid HIV testing as an example of EBP. This research project is being conducted in partial fulfillment of the requirements of the PhD program at the University of Illinois at Chicago where the study's principal investigator is enrolled. Researchers are required to provide a consent form such as this one to tell you about the research, to explain that taking part is voluntary, to describe the risks and benefits of participation, and to help you to make an informed decision. You should feel free to ask the researchers any questions you may have. The contact information for the Principal investigator of this study is: lirarr2@ uic.edu, phone 708-870 65 92,and mail: 1603 West Taylor Street, Chicago, IL 60612, at the Health Policy and Administration department, school of Public health, University of Illinois at Chicago. This project is sponsored by the UIC AIDS International Training and Research Program, granted by NIH-Fogarty International Center and supported by the Catholic University in Chile where the principal investigator is a professor.

If you choose to participate, you will have to complete a questionnaire one time only for approximately 15-20 minutes during your lunch time at your clinic. The question of the questionnaire are concerning some of your personal characteristics, evidence-based practice beliefs, perceived organizational culture, barriers to EBP and future implementation of Oral rapid testing, and HIV attitudes towards people living with HIV and HIV testing.

All the information you provide in the questionnaire will be kept strictly confidential, meaning that, no one will have access to your answers but the research staff, and not even the research team will know who answered each questionnaire. The questionnaire is anonymous, meaning you don't need to write your name on it. The questionnaire will be handed to you in an envelope and once finished it will be kept in a locker with key at the university. No personal information

APPENDIX D: CONSENT FORM FOR PARTICIPANTS OF MAIN STUDY (English) (continued)

will be disclosed at any time. The results of the study will contain information about what are the barriers and facilitator factors, culture and EBP beliefs associated to a higher readiness to oral rapid HIV testing among nurses and physicians at some clinics in Santiago Chile.

Your participation in this study is voluntary and you may decide whether or not to participate, and it will not affect your current or future dealings with the University of Illinois at Chicago or the clinic where you currently work. **If you decide to participate, you are free to withdraw at any time without affecting those relationships.** You will be offered lunch when completing the questionnaire at your lunch time.

Approximately 150 subjects may be involved in this research in total.

As a participant of this study you will have to sign this consent sheet, and will receive a copy of it. We recommend the use of a pseudonym since the director of the clinic will also sign the consent. We believe that not telling the director of your clinic who is participating or not in the study may help to diminish any pressure to participate because the clinic director supports the study. In a separate list you will have to provide with your name and your selected pseudonym. This list will be saved by the principal investigator under lock at the university and used only in case the ethic committee requests to confirm the voluntary participation of an enrolled person to the study. After 3 months the list will be destroyed.

We will provide you with lunch the day of the questionnaire session. If you are interested in participating, you will sign the consent form and the session will start. We promise to give the results of the study ones the analysis has been completed to your clinic for you're to access, the result will not contain any names just general information about what are the characteristics associated with more or less readiness to oral rapid HIV test, as an example of evidence-based practice.

There is no risk associated to participating in this study. However it may feel a bit uncomfortable to talk about your beliefs related to HIV, and your work place. So to make you more comfortable the questionnaire doesn't have your name, it will be handed out to you in an envelope, you will have a space to fill the questionnaire without other colleagues been able to see what you are answering. While the questionnaire will not ask for any identifiable information, anyone attending the session will know that other session attendees participated in the research. Also you will do the questionnaire in the same room as other colleagues, although we ask everyone in the group to respect everyone's privacy and confidentiality, and not to identify anyone in the group or repeat what is said during the session, please remember that other participants in the group may accidentally disclose what was said.

APPENDIX D: CONSENT FORM FOR PARTICIPANTS OF MAIN STUDY (English) (continued)

This study is not designed to benefit you directly. This study is designed to learn more about barriers and facilitator factors about evidence-based practice and readiness to use oral rapid HIV testing at your clinic. The study result may be used to help stakeholders in your community when planning to implement future evidence-based practice or oral rapid testing.

Can I withdraw or be removed from the study?

Again, you have the option to not participate in this study. Only the research team members will know who decide to participate or not and no information about the study participants will be given to the director of your clinic, unless your require us to do so as for your convenience.

If you decide to participate, you are free to withdraw your consent and discontinue participation at any time without penalty.

What about privacy and confidentiality?

Study documents with your information (the separate sheet requested with your name, the questionnaire and the consent form signed by you will be hold under lock at the Pontifícia Universidad Católica de Chile and at a later stage it will be moved to the University of Illinois Chicago. After 3 months, at the end of the study, all the three documents listed above will be destroyed.

When the results of the research are published or discussed in conferences, no information will be included that would reveal your identity. The information in the questionnaire will be entered by a staff member that will not have access to the names, only the principal investigator (PI) can access the names corresponding to the pseudonyms, which only will be used if requested by the South Health Service of the Metropolitan region (SSMSO) ethic committee.

What are my rights as a research subject?

If you feel you have not been treated according to the descriptions in this form, or if you have any questions about your rights as a research subject, including questions, concerns, complaints, or to offer input, you may call Claudia Uribe from the Ethic committee of the Nursing school at the Pontifícia Universidad Católica de Chile who approved this study to the phone 2354-5834 or email: curibet@uc.cl or Dr. Patricio Michaud Ch. of the ethic committee of the SSMSO who approved this study to the phone 25765163. You can also contact the Office for the Protection of Research Subjects (OPRS) at 312-996-1711 or 1-866-789-6215 (toll-free) or e-mail OPRS at uicirb@uic.edu in USA.

Signature of Subject

APPENDIX D: CONSENT FORM FOR PARTICIPANTS OF MAIN STUDY (English) (continued)

I have read (or someone has read to me) the above information. I have been given an opportunity to ask questions and my questions have been answered to my satisfaction. I agree to participate in this research. I will be given a copy of this signed and dated form.

_____	_____	_____
Signature with a pseudonym	Time	Date

_____	_____
Signature of Person Obtaining Consent	Date (must be same as subject's)

_____	_____
Printed Name of Person Obtaining Consent	Time

_____	_____
Signature	Date

_____

Printed Name of the Director of the Clinic

APPENDIX D: CONSENT FORM FOR PARTICIPANTS OF MAIN STUDY (Spanish)

Barreras y Facilitadores para la Preparación del Test Rápido Oral de VIH, Como un Ejemplo de Práctica Basada en la Evidencia en Chile

Un proyecto de Investigación de la Universidad de Illinois Chicago

Investigador Principal: Lisette Irarrázabal, EM, MS

Consentimiento Informado para Enfermeras, Matronas y Médicos

Se le ha invitado a participar en esta investigación porque es un profesional de la salud ya sea enfermera, matrona o médico y trabaja en un centro de salud. Le recordamos que este estudio consiste en identificar las barreras y factores facilitadores para la práctica basada en la evidencia (PBE) en su centro de salud y su asociación con la preparación del test rápido de VIH como un ejemplo de PBE. Esta investigación es parte del requerimiento parcial para la finalización del programa de doctorado de la Universidad de Illinois Chicago donde la investigadora principal está inscrita. A los investigadores se les exige entregar un consentimiento informado como este, para informar sobre la investigación, para explicarle que la participación en ella es voluntaria, describir los riesgos y beneficios de participar y ayudarlo/la a tomar una decisión informada. Usted es libre de preguntar al investigador cualquier pregunta que tenga. La información de contacto del investigador principal de este estudio es: lirarr2@uic.edu, teléfono:

_____, y correo: 1603 West Taylor Street, Chicago, IL 60612, en el departamento de Políticas de Salud y Administración, en la escuela de Salud Pública de la Universidad de Illinois en Chicago. Este proyecto es financiado por el programa de Investigación y Entrenamiento Internacional de la UIC AIDS. Concedido por el Centro Internacional del NIH-Fogarty y apoyado por la Pontificia Universidad Católica de Chile donde la Investigadora principal es docente de la Escuela de Enfermería.

Su participación consiste en completar un cuestionario auto-administrado por una vez que dura aproximadamente 15-20 minutos durante su hora de almuerzo en su centro de salud. Para compensar por su tiempo le proporcionaremos el almuerzo. Las preguntas del cuestionario consisten en solicitarle algunos datos personales (edad, genero etc.), percepción sobre la práctica basada en la evidencia, percepción de la cultura organizacional de su centro, barreras para la PBE y futura implementación del test rápido oral de VIH, actitud hacia personas viviendo con VIH o SIDA y actitud hacia el aumento de la toma del examen de VIH.

APPENDIX D : CONSENT FORM FOR PARTICIPANTS OF MAIN STUDY (Spanish)

(continued)

Toda la información que usted provea en el cuestionario será manejada de forma estrictamente confidencial, lo que significa que solo el equipo de investigación tendrá acceso a las respuestas, pero no tendrá conocimiento de la identidad de las persona que realizó el cuestionario, debido a que el cuestionario es anónimo (no lleva nombre). Se le entregará a usted el cuestionario en un sobre y una vez completado se guardará bajo llave en la universidad. Ninguna información personal será dada a conocer a otros, los resultados del estudio hablarán sobre aspectos generales de las barreras y facilitadores que se asocian con una alta preparación para el test rápido oral para VIH, como un ejemplo de PBE en algunos centros de salud en Santiago Chile.

Le recordamos que su participación en este estudio es voluntaria y usted puede decidir participar o no, y no afectará su actual o futuro relación con la Universidad Católica o en Illinois Chicago o su centro de salud. **Si decide participar, usted es libre de retirarse en cualquier momento si cambia de opinión.** Este estudio incluye la participación de 150 profesionales de la salud en total.

Como participante de este estudio tendrá que firman este consentimiento informado y recibirá una copia de este. Según las normativas del Servicio de Salud Metropolitano Sur Oriente (SSMSO) el consentimiento también lo debe firmar el director de su centro, por lo cual se usará un seudónimo pre-seleccionado de forma aleatoria para cada participante, lo que creemos ayudará a que las personas se puedan sentir más libres de decidir participar o no en este estudio que cuenta con el apoyo de su centro. De acuerdo a las mismas regulaciones del SSMSO, una lista independiente al consentimiento informado con el nombre y Rut del participante debe ser obtenida. Esta lista tiene como única finalidad resguardar la participación voluntaria de los integrantes de la investigación. Esta lista será guardada bajo llave en la oficina del investigador principal. Todos los documentos con información personal serán destruidos 3 meses después de que se haya finalizado la investigación.

Le enviaremos a su centro los resultados del estudio una vez finalizada la investigación para que usted los pueda leer, y como mencionamos con anterioridad no habrá nombres o información que lo puedan identificar a usted en el cuestionario. Los resultados hablaran sobre los factores asociados a una mayor preparación para el test rápido oral de VIH como un ejemplo de práctica basada en la evidencia.

No hay riesgos asociados con participar en este estudio, sin embargo hay personas que pueden sentirse un poco incomodas hablando sobre las percepciones que tienen respecto al VIH o SIDA o cultura laboral, para lo cual hemos diseñado el cuestionario anónimo y le hemos dado un espacio donde pueda llenar su cuestionario sin que sus colegas vean sus respuestas. También le pediremos a los participantes de la sesión de cuestionario que respeten la privacidad y

APPENDIX D: CONSENT FORM FOR PARTICIPANTS OF MAIN STUDY (Spanish)

(continued)

confidencialidad de los otros participantes y no den a conocer la identidad de aquellos que ven en la sesión, pero existe el riesgo de que alguien accidentalmente dé a conocer esta información.

Este estudio no está diseñado para beneficiarlo a usted directamente. Está diseñado para aprender más sobre las barreras y factores facilitadores que influyen en la utilización de la práctica basada en la evidencia en los centros de salud, considerando al test rápido oral para VIH como un ejemplo de PBE (Práctica Basada en la Evidencia).

Los resultados de este estudio pueden ser utilizados para ayudar a quienes toman decisiones en el área de salud, cuando planifiquen implementar una práctica basada en la evidencia así como la eventual implementación del test rápido oral para VIH en los centros de salud en Chile.

¿Puedo retirarme del estudio en cualquier momento?

Usted tiene la opción de retirarse del estudio en cualquier momento sin ningún problema o no responder una pregunta en particular y seguir participando. No compartiremos con la dirección del centro quien está participando o no a menos que usted desee de darlo a conocer.

Si decide participar usted está libre de retirar su consentimiento y no seguir participando si ningún prejuicio para usted.

¿Que pasa con la privacidad y confidencialidad?

Los documentos del estudio con su información: su cuestionario, hoja que tenga su nombre y consentimiento informado serán guardados bajo llave en la Pontificia Universidad Católica de Chile y en una etapa posterior serán movidos a la Universidad de Illinois Chicago donde el investigador principal debe finalizar el análisis.

Cuando los resultados de la investigación sean publicados o discutidos en conferencias no se dará a conocer ninguna información que identifique a los participantes. Solo el investigador principal del estudio tendrá acceso a los nombres y correspondientes seudónimos.

¿Cuáles son mis derechos como sujeto de investigación?

Si usted siente que no lo han tratado de acuerdo a lo descrito en este documento, o si tienen alguna pregunta, o preocupación sobre sus derechos como sujeto de investigación puede contactar a uno de los tres comités de ética que han aprobado esta investigación: a la profesora Claudia Uribe de la Escuela de Enfermería de la Pontificia Universidad Católica de Chile al teléfono 2354-5834 or email: curibet@uc.cl, al Dr. Patricio Michaud Ch. Director del comité de ética del SSMSO al teléfono 25765163 o a la oficina de protección de sujetos de investigación en la Universidad de Illinois en Chicago (Office for the Protection of Research Subjects (OPRS)) al

APPENDIX D: CONSENT FORM FOR PARTICIPANTS OF MAIN STUDY (Spanish)

(continued)

312-996-1711 or 1-866-789-6215 (llamada gratuita) o enviar un e-mail OPRS al uicirb@uic.edu en Estados Unidos.

Firma del Participante

He leído o me han leído la información de más arriba. Me han dado la oportunidad de hacer preguntas y mis preguntas han sido contestadas satisfactoriamente. Acepto participar en esta investigación. Me darán una copia de este consentimiento firmado por el investigador.

_____	_____	_____
Seudónimo de Participante	Hora	Fecha

_____	_____
Firma de quien toma el Consentimiento Informado	Fecha (debe coincidir con la fecha del participante)

_____	_____
Nombre de quien toma el Consentimiento Informado	Hora

_____	_____
Firma del Director del Centro	Fecha

_____

Nombre del director del centro

APPENDIX E: QUESTIONNAIRE (English)

BARRIERS AND FACILITATORS FOR READINESS TO ORAL RAPID HIV TESTING AS SPECIFIC EVIDENCE-BASED PRACTICE

Date: _____ /_____ /_____

Day Month Year

Completion of this survey indicates that you have consent to participate.

1. Select the clinic you belong to by marking with a ✓ one of the 4 clinics below.

a.___ Centro Médico San Joaquín

b. ___Madre Teresa

c. ___Juan Pablo II

d. ___San Alberto

Evidence-Based Practice (EBP)

Evidence-Based practice (EBP) or also called evidence-based medicine, is defined as the practice of healthcare in which the healthcare workers ensures that their practice or clinical decision are based on the most current and valid research findings as the basis for clinical decisions.

Below are 16 statements about evidence-based practice (EBP), please circle the number that best describes your agreement with each statement. There are no rights or a wrong answer, where **1,** is **Strongly Disagree**, and **5,** is **Strongly Agree**, the other numbers are an intermediate state.

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
1. I believe that EBP results in the best clinical care for patients.	1	2	3	4	5
2. I am clear about the steps of EBP.	1	2	3	4	5
3. I am sure that I can implement EBP.	1	2	3	4	5
4. I believe that critically appraising evidence is an important step in the EBP process.	1	2	3	4	5
5. I am sure that evidence-based guidelines can improve clinical care.	1	2	3	4	5

APPENDIX E: QUESTIONNAIRE (English) (continued)

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
6. I believe that I can search for the best evidence to answer clinical questions in a timely way.	1	2	3	4	5
7. I believe that I can overcome barriers in implementing EBP.	1	2	3	4	5
8. I am sure that I can implement EBP in a timely way.	1	2	3	4	5
9. I am sure that implementing EBP will improve the care that I deliver to my patients.	1	2	3	4	5
10. I am sure about how to measure the outcomes of clinical care.	1	2	3	4	5
11. I believe that EBP takes too much time.	1	2	3	4	5
12. I am sure that I can access the best resources in order to implement EBP.	1	2	3	4	5
13. I believe EBP is difficult.	1	2	3	4	5
14. I know how to implement EBP sufficiently enough to make practice changes.	1	2	3	4	5
15. I am confident about my ability to implement EBP where I work.	1	2	3	4	5
16. I believe the care that I deliver is evidence-based.	1	2	3	4	5

Organizational Evidence-Based Practice Culture

Below are 13 questions about evidence-based practice (EBP) at this healthcare center. Please consider the policies and practices at this healthcare center. The answers range from **1**, as **Not at all** to **5**, **Very much**. All the other numbers are an intermediate state. Please circle the number on each statement that is closest to what you think is true of this clinic.

	Not at all	A little	Some-what	Moder-ately	Very much	Don't know
1. To what extent is EBP clearly described as central to the mission and philosophy of your clinic?	1	2	3	4	5	6

APPENDIX E: QUESTIONNAIRE (English) (continued)

	Not at all	A little	Some-what	Moder-ately	Very much	Don't know
2. To what extent do you believe EBP is practiced in your clinic?	1	2	3	4	5	6
3. To what extent is the nurse or midwifes with whom you work committed to EBP?	1	2	3	4	5	6
4. To what extent is the physician team with whom you work committed to EBP?	1	2	3	4	5	6
5. To what extent are the administrators within your clinic committed to EBP (i.e. have planned free resource and support [e.g., time] to initiate EBP)?	1	2	3	4	5	6
6. In your organization, to what extent is there a critical mass of professionals who have strong EBP knowledge and skills?	1	2	3	4	5	6
7. To what extent are there staff doctoral prepared researchers in your clinic to assist in generation of evidence when it does not exist?	1	2	3	4	5	6
8. In your clinic, to what extent are there professionals who are EBP mentors for the staff?	1	2	3	4	5	6
9. To what extent do practitioners model EBP in their clinical settings?	1	2	3	4	5	6
10. To what extent do staff nurses or midwife have access to quality computers and access to electronic databases for searching for best evidence?	1	2	3	4	5	6
11. To what extent do practitioners have proficient computer skills?	1	2	3	4	5	6

APPENDIX E: QUESTIONNAIRE (English) (continued)

	Not at all	A little	Some-what	Moder-ately	Very much	Don't know
12. To what extent are the governmental resources used to support EBP (e.g. EBP conference, workshops, computers, paid time for the EBP process, mentors in EBP)?	1	2	3	4	5	6
13. To what extent are there EBP champions (i.e., those who will go the extra mile to advance EBP) in the environment among:						
a) Administrators?	1	2	3	4	5	6
b) Physicians?	1	2	3	4	5	6
c) Nurses?	1	2	3	4	5	6
d) Midwifes?	1	2	3	4	5	6
14. To what extent is the measurement and sharing of outcomes part of the culture of the clinic in which you work?	1	2	3	4	5	6

Human Immunodeficiency Virus (HIV)

Below are 20 items that ask about your attitudes related to HIV and AIDS.

Select the alternative that best represent your opinion by making a circle on the numbers in each statement, where **1** is **strongly disagree**, to **5** is **strongly agree**, all other numbers are an intermediate states.

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strong-ly Agree
1. I think the homosexual community has brought the problem of AIDS upon itself	1	2	3	4	5
2. Activities that spread AIDS, such as some forms of sexual behaviors, should be outlawed	1	2	3	4	5
3. Civil right laws should be enacted to protect people with AIDS from job & housing discrimination	1	2	3	4	5

APPENDIX E: QUESTIONNAIRE (English) (continued)

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strong -ly Agree
4. People living with AIDS are not dangerous to others in causal contact (e.g. give hands, a hug etc.)	1	2	3	4	5
5. It distresses me so many nursing and medical procedures have to be changed or modified as a result of AIDS	1	2	3	4	5
6. Nurses, midwifes and physicians who are HIV positive should be prevented from participating in direct patient care	1	2	3	4	5
7. Nurses, midwifes and physicians should be allowed to refuse care	1	2	3	4	5
8. I feel angry about the possibility of caring for a person with AIDS who contracted the disease through high risk sexual behavior	1	2	3	4	5
9. There is too much money spent on AIDS research	1	2	3	4	5
10. Person with AIDS should be quarantined	1	2	3	4	5
11. Pregnant nurses, midwifes and physicians should be excused from caring for person with AIDS	1	2	3	4	5
12. I feel worried about acquiring AIDS from patients	1	2	3	4	5
13. I am not bothered about possibility caring for an infant who was born HIV positive	1	2	3	4	5
14. I am bothered that I might not be able to prevent myself from contracting AIDS	1	2	3	4	5
15. It is comforting to know that there's not much difference in caring for AIDS patient than caring for other terminally ill persons	1	2	3	4	5
16. I worry about possible casual contact (e.g. give hands, a hug etc.)with a person with AIDS	1	2	3	4	5
17. I have enough information to protect myself in the workplace	1	2	3	4	5
18. I am fearful of caring for persons with AIDS	1	2	3	4	5

APPENIX E: QUESTIONNAIRE (English) (continued)

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strong -ly Agree
19. Nurses, midwifes and physicians need to know the HIV antibody status of patients they are caring for	1	2	3	4	5

The following 11 questions are regarding the attitude towards people living with HIV or AIDS. Mark with a circle a number on each statement below that best represent what you believe, Where **1**= **yes** and **2**= **no**

Attitude towards people living with HIV or AIDS	Yes	No
1. People who have AIDS are dirty	1	2
Attitude towards people living with HIV or AIDS	Yes	No
2. People who have AIDS are cursed	1	2
3. People who have AIDS cannot be trusted	1	2
4. People who have AIDS are like everyone else	1	2
5. People who have AIDS should be ashamed	1	2
6. People who have AIDS have nothing to feel guilty about	1	2
7. Most people who have AIDS must expect restrictions on their freedom	1	2
8. A person with AIDS must have done something wrong and deserves to be punished	1	2
9. People who have HIV should be isolated	1	2
10. I do not want to be friends with someone's who has AIDS	1	2
11. People who have AIDS should not be allowed to work	1	2

APPENIX E: QUESTIONNAIRE (English) (continued)

HIV Testing

Which of the following statements describe best your opinion regarding HIV testing in primary health clinics in Chile? Mark with an [X] the number that best represent your opinion, where **1**, is **Agree** and **2**, is **Disagree**.

1. More HIV testing is important in Chile to prevent the spread of HIV?

   a) Agree [1]

   b) Disagree [2]

2. More HIV testing is important in Chile to get people into treatment earlier?

   a) Agree [1]

   b) Disagree [2]

3. Should HIV testing in primary health clinics be increased using a rapid HIV test?

   a) Agree [1]

   b) Disagree [2]

Perceived barriers to Oral rapid HIV test

Oral rapid HIV testing includes an oral and finger-prick test in the same kit. It takes 20-40 minutes to obtain the preliminary results in both cases. Both pre and post counseling is needed since the result will be provided to the patient at the same visit. The testing kit can be maintained under room temperature.

1- Oral test takes an oral sample collected on a swab the client passed against their upper and lower gums. Once the oral kit is used you can throw it in the regular garbage can.

2- The finger-prick option uses a lancet instead of the swab to obtain a few drops of blood for the test. For the finger prick test disposable gloves and a sharp container is needed.

There are several steps in providing rapid HIV test for a patient. After you had the appropriate training, please indicate what you would be comfortable doing, and what you believe regarding rapid HIV

APPENIX E: QUESTIONNAIRE (English) (continued)

testing by selecting for each statement below the appropriate number, where **1** is **Strongly Disagree** to **5** is Strongly Agree. All the other numbers are an intermediate stage.

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
1. Would you feel comfortable doing rapid HIV **pre-test** counseling?	1	2	3	4	5
2. Would you feel comfortable doing an **oral** HIV rapid test?	1	2	3	4	5
3. Would you feel comfortable performing the **finger-prick** test?	1	2	3	4	5
4. Would you feel comfortable giving a **positive** result (client has HIV) from a rapid test and doing the post-test counseling?	1	2	3	4	5
5. Would you feel comfortable giving a **negative** result (client does not have HIV) and post-test counseling?	1	2	3	4	5
6. I believe the ELISA blood test for HIV is the only reliable test for HIV.	1	2	3	4	5
7. I believe a finger-prick test option is more reliable than an oral test.	1	2	3	4	5
8. I believe oral rapid HIV test option is better for the clinic than the finger prick test, because it does not use any "sharp" material, so the health workers have no HIV exposure.	1	2	3	4	5
9. I believe the rapid HIV test (oral or finger-prick) is a good way to meet the need for more HIV testing.	1	2	3	4	5
10. I believe other health professionals can be trained to do the rapid HIV test.	1	2	3	4	5

APPENIX E: QUESTIONNAIRE (English) (continued)

Readiness for Oral Rapid HIV Test (ORT)

The following 5 questions are related to readiness to oral rapid HIV testing (ORT). Please answer each question by marking with a circle the number that you believe best represents your opinion, where **0,** is to be **strongly disagree**, to **4** as **strongly agree**. The other numbers are intermediate states.

Rapid HIV testing [ORT] (oral or finger-prick option)	**Strongly disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly agree**
1. I believe I have the skills to use ORT.	0	1	2	3	4
2. I believe I have the flexibility to use ORT (meaning I can adapt the way I practice).	0	1	2	3	4
3. I believe using ORT will take too much time.	0	1	2	3	4
4. I believe I will receive the training I need to use ORT.	0	1	2	3	4
5. I believe using ORT will improve outcomes for my clients.	0	1	2	3	4

Open Ended Questions

1. Do you think your clinic can do rapid HIV testing and what problems do see?

   _____

   _____

2. Are there aspects (i.e. organizational, staff, resource) at your clinic that will make it easier to introduce rapid HIV testing?_____

Individual Characteristics

Mark with an (X) the number in each statement that best describe yourself.

1. Gender:
   a) Man 1
   b) Women 2

2. How many years have you been in practice?_____

APPENIX E: QUESTIONNAIRE (English) (continued)

3. What is your age range?

Please mark with an [X] on a box below the age range that represents you

a) 20-29 [1]

b) 30-39 [2]

c) 40-49 [3]

e) 50-59 [4]

f) 60-70 [5]

4. Profession:

a) Nurse [1]

b) Midwife [2]

b) Physician [3]

5. Educational background: *Mark the highest level of education you have*

a) University degree [1]

b) Diploma [2]

c) Master's degree [3]

d) PhD [4]

e) Post doc [5]

6. Before today, did you know what evidence-based practice (EBP) was?

a) Yes [1]

b) No [2]

APPENDIX E: QUESTIONNAIRE (English) (continued)

7. Before today, did you know what oral rapid HIV testing (ORT) was?

a) Yes 1

b) No 2

THANK YOU FOR YOUR PARTICIPATION!!!

APPENDIX E: QUESTIONNAIRE (Spanish)

BARRERAS Y FACILITADORES PARA LA PREPARACION DEL TEST RAPIDO DE VIH COMO UN EJEMPLO DE PRÁCTICA BASADA EN LA EVIDENCIA EN CHILE

Fecha: _____ /_____ /_____
Día Mes Año

El llenado de este cuestionario significa que usted ha dado consentimiento para participar.

Seleccione el centro de salud al cual usted pertenece, marque con un, uno ✓ de los 4 centros a continuación:

a. ___Centro Medico San Joaquín

b. ___Madre Teresa

c. ___Juan Pablo II

d.___ San Alberto

PRACTICA BASADA EN LA EVIDENCIA

La práctica basada en la evidencia (PBE) o también llamada medicina basada en evidencia, es definida como la práctica de salud en el cual el trabajador de salud asegura que sus prácticas o decisiones clínicas se basan en la los hallazgos de investigación más recientes como parte de las decisiones clínicas.

Más abajo se encuentran 16 afirmaciones sobre la práctica basada en la evidencia, por favor encierre en un círculo el número que mejor describe su opinión sobre la afirmación.

No hay respuestas erróneas o correctas, el número **1** es **Totalmente en Desacuerdo**, hasta el **5, Totalmente de Acuerdo**, los otros números son estados intermedios.

Práctica Basada en la Evidencia (PBE)	Totalmente Desacuerdo	Desacuerdo	Ni en acuerdo o en desacuerdo	De Acuerdo	Totalmente de Acuerdo
17. Yo creo que la PBE es el mejor cuidado que se le puede brindar al paciente.	1	2	3	4	5
18. Tengo claro los pasos de PBE.	1	2	3	4	5

Continuación…. (próxima página)

APPENDIX E: QUESTIONNAIRE (Spanish) (continued)

Práctica Basada en la Evidencia (PBE)	Totalmente Desacuerdo	Desacuerdo	Ni en acuerdo o en desacuerdo	De Acuerdo	Totalmente de Acuerdo
19. Estoy segura/o que puedo implementar PBE.	1	2	3	4	5
20. Creo que la valoración crítica de la evidencia es un paso importante del proceso de PBE.	1	2	3	4	5
21. Estoy segura/o que la guías de PBE mejoran la atención de salud.	1	2	3	4	5
22. Creo que puedo buscar oportunamente la mejor evidencia que dé respuesta a las preguntas clínicas.	1	2	3	4	5
23. Creo que puedo sobrepasar las barreras que surjan al implementar PBE.	1	2	3	4	5
24. Estoy seguro/a que puedo implementar PBE de una manera oportuna.	1	2	3	4	5
25. Estoy seguro/a que la implementación de PBE va a mejorar la atención de salud que entrego a mis pacientes.	1	2	3	4	5
26. Estoy seguro/a de cómo medir los resultados del cuidado clínico.	1	2	3	4	5
27. Creo que PBE toma demasiado tiempo.	1	2	3	4	5
28. Estoy seguro/a que puedo acceder a los recursos necesarios para poder implementar la PBE.	1	2	3	4	5
29. Creo que PBE es difícil.	1	2	3	4	5
30. Sé cómo implementar PBE suficientemente bien para hacer cambios en la práctica clínica.	1	2	3	4	5
31. Tengo confianza en mis habilidades para implementar PBE en mi trabajo.	1	2	3	4	5

APPENDIX E: QUESTIONNAIRE (Spanish) (continued)

Práctica Basada en la Evidencia (PBE)	Totalmente Desacuerdo	Desacuerdo	Ni en acuerdo o en desacuerdo	De Acuerdo	Totalmente de Acuerdo
32. Creo que el cuidado en salud que entrego está basado en la PBE.	1	2	3	4	5

Cultura Organizacional Sobre Práctica Basada en la Evidencia

Por favor considere las siguientes 14 preguntas sobre cultura organizacional de práctica basada en la evidencia (PBE) e indique cual es la respuesta que mejor indica la realidad en su lugar de trabajo. Considere las políticas y prácticas de su centro de salud. Marque con una circulo el número que mejor representa su opinión, donde **1,** es **Para Nada** hasta el **5,** es **Mucho**, los otros números son un estado intermedio.

	Para Nada	Un Poco	Algo	Modera-damente	Mucho	No se
15. ¿En qué medida la PBE la PBE se describe claramente como un elemento central en ~~a~~ la misión y la filosofía de ~~la~~ su institución?	1	2	3	4	5	6
16. ¿Hasta qué punto usted cree que la PBE es implementada en su organización?	1	2	3	4	5	6
17. ¿Hasta qué punto están las enfermeras con quien usted trabaja comprometidas con la PBE?	1	2	3	4	5	6
18. ¿Hasta qué punto está el equipo médico con quien trabaja comprometidos con la PBE?	1	2	3	4	5	6
19. ¿Hasta qué punto están las matronas con quien usted trabaja comprometidas con la PBE?	1	2	3	4	5	6
20. ¿Hasta qué punto está comprometido el personal directivo de su organización con la PBE (ej. hay recurso disponible y apoyo [tiempo]) para iniciar una PBE?	1	2	3	4	5	6
21. ¿En su organización, hasta qué punto hay una masa crítica de profesionales que tienen un fuerte conocimiento y habilidades en PBE?	1	2	3	4	5	6
22. ¿Hasta qué punto hay personal con formación en investigación a nivel de doctorado para asistir en la generación de evidencia cuando no existe?	1	2	3	4	5	6

APPENDIX E: QUESTIONNAIRE (Spanish) (continued)

	Para Nada	Un Poco	Algo	Modera-damente	Mucho	No sé
23. ¿En su organización, hasta qué punto hay profesionales mentores en PBE disponible para el profesional de salud?	1	2	3	4	5	6
24. ¿Hasta qué punto sus pares modelan la PBE en su lugar de trabajo clínico?	1	2	3	4	5	6
25. ¿Hasta qué punto usted como profesional tiene acceso a computadores de calidad para acceder electrónicamente a base de datos para buscar por la mejor evidencia disponible?	1	2	3	4	5	6
26. ¿Hasta qué punto los profesionales tiene conocimiento y habilidades computacionales?	1	2	3	4	5	6
27. En qué medida se utilizan los recursos públicos para apoyar la PBE) por ejemplo, conferencias sobre PBE, educación/talleres sobre PBE, computadoras, tiempo pagado para el proceso de PBE, mentores en PBE)?	1	2	3	4	5	6
28. ¿En qué medida hay "campeones" en PBE en su institución (es decir, los que se destacan en avanzar en la PBE) entre?						
a) Administrativos	1	2	3	4	5	6
b) Médicos	1	2	3	4	5	6
c) Enfermeras	1	2	3	4	5	6
d) Matronas	1	2	3	4	5	6
29. ¿Hasta qué punto es la medición y comunicación de los resultados parte de la cultura organizacional en su lugar de trabajo?	1	2	3	4	5	6

APPENDIX E: QUESTIONNAIRE (Spanish) (continued)

Virus de Inmunodeficiencia Humana (VIH)/ Síndrome de Inmuno-Deficiencia Humana (SIDA)

Las siguientes 20 preguntas son sobre la actitud hacia el VIH y SIDA. El VIH es el virus y el SIDA es cuando la personas manifiesta los síntomas de la enfermedad. Una persona puede vivir con el virus y transmitirlo y no manifestar la enfermedad hasta más adelante.

Seleccione la alternativa que mejor representa su opinión marcando con un círculo el número correspondiente en cada afirmación, donde **1** es **Totalmente en desacuerdo** hasta **5**, **Totalmente de acuerdo**. Todos los otros números son estados intermedios.

	Totalmente Desacuerdo	En Desacuerdo	Ni Acuerdo o Desacuerdo	Acuerdo	Total-mente en Acuerdo
20. Creo que la comunidad homosexual ha traído el problema del SIDA a sí mismos.	1	2	3	4	5
21. Actividades que transmiten el SIDA como ciertos comportamientos sexuales, deberían ser ilegales.	1	2	3	4	5
22. Las leyes civiles deben ser promulgadas para proteger a las personas con SIDA de la discriminación en el trabajo y vivienda.	1	2	3	4	5
23. En un contacto casual (ej. Darse la mano, un abrazo etc.) las personas viviendo con SIDA no son peligrosas.	1	2	3	4	5
24. Funcionarios de la escuela pública no deberían estar obligados a aceptar niño con SIDA en las clases.	1	2	3	4	5
25. Me aflige pensar que tantos procedimientos clínicos tienen que ser cambiados o modificados como resultado del SIDA.	1	2	3	4	5

APPENDIX E: QUESTIONNAIRE (Spanish) (continued)

	Totalmente Desacuerdo	En Desacuerdo	Ni Acuerdo o Desacuerdo	Acuerdo	Total-mente en Acuerdo
26. Se debería prevenir que Enfermeras, matronas y médicos VIH positivos puedan proporcionar atención directa al paciente.	1	2	3	4	5
27. Las enfermeras, matronas y médicos debería estar autorizados para denegar el cuidado de una persona con VIH o SIDA si lo desean.	1	2	3	4	5
28. Me molesta a nivel de enojarme la idea de tener que atender a una persona que contrajo el SIDA por conductas sexuales de alto riesgo.	1	2	3	4	5
29. Ya se ha gastado demasiado dinero en la investigación sobre el SIDA.	1	2	3	4	5
30. Una persona con SIDA debe ser puesto en cuarentena	1	2	3	4	5
31. Enfermeras, matronas y médicos embarazadas debería ser excusadas del cuidado de personas con VIH	1	2	3	4	5
32. Me preocupa adquirir el SIDA de los pacientes.	1	2	3	4	5
33. No me molesta la posibilidad de atender a un recién nacido que haya nacido con VIH.	1	2	3	4	5
34. Estoy preocupado/a de no poder evitar contraer el SIDA.	1	2	3	4	5
35. Es reconfortante saber que no hay mucha diferencia en el cuidado que se brinda a un paciente con SIDA con el de un enfermo terminal.	1	2	3	4	5

APPENDIX E: QUESTIONNAIRE (Spanish) (continued)

	Totalmente Desacuerdo	En Desacuer -do	Ni Acuerdo o Desacuerdo	Acuerdo	Total- mente en Acuerdo
36. Me preocupa un posible contacto casual (ej. darse la mano, un abrazo etc.) con una persona con SIDA	1	2	3	4	5
37. Tengo suficiente información para protegerme en mi lugar de trabajo.	1	2	3	4	5
38. Estoy temerosa/o de cuidar a las personas con SIDA porque no hay cura.	1	2	3	4	5
39. Las enfermeras, matronas/es y médicos necesitan saber el estado de los anticuerpos para VIH de su paciente, antes de brindarles cuidado.	1	2	3	4	5

Las preguntas a continuación corresponden a algunas creencias respecto a las personas viviendo con VIH o SIDA. Seleccione marcando con un circulo el número que mejor representa su acuerdo con las afirmaciones a continuación, donde **1= S**i y **2= No**

Actitud sobre las personas viviendo con VIH	**Si**	**No**
12. Las personas que tienen SIDA no son limpias	1	2
13. Las personas con SIDA están maldecidas	1	2
14. No se puede confiar en las personas con SIDA.	1	2
15. Las personas que tienen SIDA son igual que cualquier otra persona.	1	2
16. Las personas que tienen SIDA deberían sentir vergüenza.	1	2
17. Las personas que tiene SIDA no tienen que sentir culpa.	1	2
18. La mayoría de las personas con SIDA deben esperar tener una libertad restringida.	1	2
19. Una personas con SIDA deben haber hecho algo malo y merecen ser castigadas/os.	1	2
20. Una persona que tienen VIH debe ser aislada.	1	2
21. No quiero ser amigo/a con alguien que tiene SIDA.	1	2

APPENDIX E: QUESTIONNAIRE (Spanish) (continued)

Actitud sobre las personas viviendo con VIH (continued)	Si	No
22. Las personas que tienen SIDA no debería estar autorizadas a trabajar.	1	2

Examen de HIV

¿Cuál de las siguientes afirmaciones describen mejor su opinión respecto el test de VIH en los centros de salud de atención primaria en Chile? Marque con una [X]el número que mejor representa su opinión al respecto, donde **1**, es **De acuerdo** y **2**, es en **Desacuerdo**.

1. ¿Será importante que se hagan más test de VIH en Chile para prevenir que el VIH se esparza?

   a) De acuerdo 1

   b) En desacuerdo 2

2. ¿Será importante que más test de VIH se hagan en Chile para que más personas reciban tratamiento en una etapa más temprana?

   a) De acuerdo 1

   b) En desacuerdo 2

3. ¿Se debería incrementar el test de VIH en los centros de salud de atención primaria usando un test rápido para VIH?

   a) De acuerdo 1

   b) En desacuerdo 2

Barreras Percibidas Sobre El Test Rápido de VIH

El kit del test rápido oral para VIH incluye dispositivos para hacer el test oralmente y también en sangre mediante la punción de dedo (como los test de glucosa para los diabéticos). Toma alrededor de 20-40 minutos obtener los resultados preliminares en ambos casos. Es necesario tanto pre y post consejería ya que en la misma visita se provee el resultado al paciente. El kit del test rápido puede ser guardado bajo temperatura ambiente.

APPENDIX E: QUESTIONNAIRE (Spanish) (continued)

3- El test oral obtiene la muestral oral pasando un dispositivo (una vez) por ambas encías superiores e inferiores del paciente. Una vez usado el kit oral se puede votar a la basura.

4- La opción de punción de dedo usa una lanceta en vez del dispositivo oral para obtener una gota de sangre. Para este método del test se necesitan guantes y un contenedor de material corto punzante.

Hay varios pasos involucrados en proveer un test rápido para el paciente. A continuación se le preguntara cuan de acuerdo se puede sentir usted ejecutando estos pasos para la toma del test rápido de VIH ya sea oral o en punción de dedo. También le preguntaremos sobre lo que usted cree respecto al test rápido para VIH en general. Considere que usted recibiría el entrenamiento adecuado para ejecutar el test rápido correctamente al contestar estas preguntas e indique su opinión seleccionando para cada una de las 10 afirmaciones la alternativa que mejor representa su opinión, donde el número **1** es **Totalmente en desacuerdo** hasta **5** que es **totalmente de acuerdo.**

	Totalmente en desacuerdo	En Desacuer-do	Neutral	De acuerdo	Total-mente de acuerdo
11. ¿Me sentiría cómodo/a hacienda la pre-consejería rápida para VIH?	1	2	3	4	5
12. ¿Me sentiría cómodo/a haciendo el test rápido oral para VIH (en fluido oral)?	1	2	3	4	5
13. ¿Me sentiría cómodo/a haciendo el test rápido para VIH con la punción de dedo?	1	2	3	4	5
14. ¿Me sentiría cómodo/a dando un resultado positive (VIH+) de un test rápido y hacer la post consejería?	1	2	3	4	5
15. ¿Se sentiría cómodo/a dando un resultado negativo (VIH-) y hacer una post consejería?	1	2	3	4	5
16. Creo que el test de sangre de ELISA para VIH es el único test en que se puede confiar como test de tamizaje (prueba para población en general -screening) para VIH.	1	2	3	4	5
17. Creo que la modalidad de punción de dedo del test rápido para VIH es una opción más confiable que la modalidad oral del test.	1	2	3	4	5
18. Creo que el test rápido oral para VIH es mejor para la clínica que el de punción de dedo por que no usa material corto punzante, así los trabajadores no se exponen al VIH.	1	2	3	4	5
19. Creo que el test rápido para VIH (oral o punción) es una buena manera para incrementar el número de personas que se hacen el test de VIH	1	2	3	4	5

APPENDIX E: QUESTIONNAIRE (Spanish) (continued)

	Totalmente en desacuerdo	En Desacuer-do	Neutral	De acuerdo	Total-mente de acuerdo
20. Creo que otros profesionales de la salud también pueden ser entrenados para hacer el test rápido para VIH.	1	2	3	4	5

PREPARACIÓN PARA EL TEST RÁPIDO DE VIH

Las siguientes 5 preguntas se relacionan con preparación para el test rápido de VIH (TRV). Por favor responda cada pregunta marcando con un circulo el número que usted cree mejor representa su opinión en las siguientes 5 afirmaciones, donde **0,** es estar **Totalmente en desacuerdo** hasta el **4** que es **Totalmente de Acuerdo**. Los otros números son estados intermedios.

Respecto el test rápido para VIH (TRVIH)	**Totalmente Desacuerdo**	**En Desacuerdo**	**Neutral**	**De Acuerdo**	**Total-mente de Acuerdo**
6. Yo creo que tengo las habilidades para usar el test rápido para VIH (TRVIH).	0	1	2	3	4
7. Yo creo que tengo la flexibilidad para usar el TRVIH (quiere decir que puedo adaptar la forma en que proveo atención de salud).	0	1	2	3	4
8. Yo creo que usar el TRVIH va a tomar demasiado tiempo.	0	1	2	3	4
9. Yo creo que voy a recibir el entrenamiento que necesito para usar el TRVIH.	0	1	2	3	4
10. Yo creo que el uso del TRVIH va a mejorar los resultados para los clientes (derivación más oportuna a atención en salud y tratamiento).	0	1	2	3	4

Preguntas Abiertas

3. ¿Usted cree que su centro de salud puede hacer el test rápido para VIH y que dificultades ve usted en eso?

_____

APPENDIX E: QUESTIONNAIRE (Spanish) (continued)

_____

_____

4. ¿Hay aspectos (organizacionales, personales o de recurso) en su centro de salud que harían más fácil la introducción del test rápido para VIH en su centro?

_____

_____

Características Demográficas

Finalmente las últimas preguntas de este cuestionario son relacionas a algunas características personales. Por favor *marcar con una (X) las afirmaciones que mejor lo/la describen.*

1. Género:

a) Hombre 1

b) Mujer 2

2. Edad, *seleccionar el grupo etario que lo representa*

a) 20-29 1

b) 30-39 2

c) 40-49 3

e) 50-59 4

f) 60-70 5

g) > 71 6

3. Profesión:

a) Enfermera/o 1

b) Matron/a 2

c) Médico 3

APPENDIX E: QUESTIONNAIRE (Spanish) (continued)

4. Trasfondo educacional: *Seleccionar el nivel más alto de educación completada.*

a) Universitario (Médico, matrona, enfermera) 1

b) Diploma 2

c) Magister 3

d) Doctorado 4

e) Post doctorado 5

5. Antes de hoy día, sabía lo que era la práctica basada en la evidencia (PBE)?

a) Si 1

b) No 2

6. Antes de hoy día, sabía lo que era el test rápido oral para VIH?

a) Si 1

b) No 2

MUCHAS GRACIAS POR SU VALIOSA PARTICIPACION!!!

CURRICULUM VITAE

Lisette Irarrázabal

I. UNIVERSITY STUDIES

2010-2012 PhD student at the School of Public Health, Health Policy and Administration Department, the University Of Illinois at Chicago, USA.

2008 Certification in Bioethics, Faculty of Medicina Pontifícia Universidad Católica de Chile

2006-2008 Master in Science of Nursing (MSN) specialty Administration, Pontifícia Universidad Católica de Chile

1994 – 1999 Nurse- Midwife, Pontificia Universidad Católica de Chile

II. LANGUAGES

Spanish: as first native language
Swedish as second native language
English : Bilingual

III. ACADEMIC ACTIVITIES: School of Nursing

2009 to present Assistant Adjunct Professor, School of Nursing, Faculty of Medicine Pontificia Universidad Católica de Chile.

2005 – 2008 Associate instructor, School of Nursing, Faculty of Medicine Pontificia Universidad Católica de Chile.

IV. RESEARCH

2009-2010 ***Principal Investigator*** of the Project "Evaluation of HIV oral rapid test", CIDIIE # 3 (intramural funds) from the School of Medicin, Pontificia Universidad Católica de Chile.

2009-2010 ***Principal Investigator*** of the project "An HIV and AIDS prevention intervention program for Chilean social-disadvantage Men and Women" DIEE (intramural funds) from the School of Nursing, Pontificia Universidad Católica de Chile.

2007-20011 ***Project coordinator*** "Bringing HIV/AIDS prevention to Chilean men" National Institute of Health, USA (NIH), Principal Investigator Ferrer L. Grant # NIH RO1 TW 007674.

2004-2009 ***Project coordinator*** "Testing an HIV/AIDS Prevention Intervention for Chilean Women", National Institute of Health, USA (NIH), P.I. Cianelli R., Norr K., Grant # 1 R01 TW006977-01, 2004 – 2009

2004 -2007 ***Project coordinator***, "Mobilizing Health Workers/Community HIV Prevention in Chile", National Institute of Health, USA (NIH), P.I. Norr K., Grant # 1 R03 TW006980-01, 2004-2007

2005 ***Intervention Facilitator,*** "Future health professionals: strengthen knowledge, attitude and behaviors towards HIV and AIDS prevention", School of Nursing, Pontificia Universidad Católica de Chile.P.I L. Ferrer, DIPUC 2005 ce 027.

2005 ***Local coordinator*** for Minority International Program in Research Training Program (MIRT) Fogarty, USA para Chile Grant # T37TW00057.

2004 ***Clinical Coordinator*** Healthcare clinic at primary care "Centro de Salud Recreo", M. San Miguel at the project "The acquisition of the mother tongue of children born of term and premature of universal to the particular bases", School of Psychology, Pontificia Universidad Católica de ChileP.I Peña M., Fernandez P., Pittaluga E., FONDECYT 1040 761

2003 ***Clinical Coordinator*** Healthcare clinic at primary care "Centro de Salud Recreo", M. San Miguel of the project "Bases neurological of the language acquisition during early development", School of psychology Escuela de Psicología, Pontificia Universidad Católica de Chile P.I Peña M., Fernandez P., Pittaluga E., Dipuc 2003/14E

V. AWARDS

Award 2012 received from the 7th Annual Research/Practice Awards day, presenting the poster "Rapid Test for HIV: An Alternative to HIV ELISA Test used as Screening in Chile".

INTERNATIONAL ACTIVITIES

2011 at present Nominated Board member of the Philadelphia AIDS consortium in Philadelphia

2010 Presenter of *Mano a Mano* Initiative in HIV AIDS prevention at the Global Health Student Interest Group, University of Illinois at Chicago School of Public Health

2007 - 2010 Program coordinator of Exchange undergraduate students, Mano a Mano School of Nursing and school of nursing, Sciences of the University of Miami.

2005 - 2010 Supervisor of exchange students at Mano a Mano School of Nursing, Pontificia Universidad Católica de Chile with the University of California in Davis and Universidad de Chile

2005 - 2010 Supervisor of exchange students in Mano a Mano School of Nursing, Pontificia Universidad Católica de Chile with TUFTS University.

2004 - 2010 Supervisor of exchange students at Mano a Mano School of Nursing, Pontificia Universidad Católica de Chile with Minority International Research and Training Program, University of Illinois at Chicago.

VI. MEMBER OF A COMMITTEE: NATIONAL AND UNIVERSITY FUNDS

2008-2010 *Member of the Ethic committee,* School of Nursing, Pontificia Universidad Católica de Chile

2006 FONIS [National fund in Research and Health development], Reviewer of research projects CONICYT (Comision Nacional de Investigación cientifica y Tecnologia, Gobierno de Chile) [National Commission of Scientific and Research and Tecnologies, Chilean Goverment] Chile.

VII. PUBLICATIONS

Irarrazabal, L., Ferrer L, Cianelli R, Lara L, Reed R, Levy J, Perez C. (2013). Oral rapid Test: an alternative to tradicional HIV screening in Chile. Revista Panamericana de Salud Publica. 33(6);427-432

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Bravo, V., Valdebenito, F., Cianelli, R., Ferrer, L., **Irarrázabal, L.** (2009) Complementary and alternative therapies in HIV/AIDS. Science and Nursing, 15(2), 115-122.

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Ferrer, L., Bernales , M., Cabieses, Báltica., Cianelli, R., Triviño, X.,**Irarrázabal, L**., Peragallo, N.,& Ferrer, X. (2007) Knowledge and perception of curricular training associated with HIV/AIDS of future nurses and doctors in Santiago *Revista Horizonte de Enfermería*, 18(2),53-59.

Cianelli, R., Ferrer, L., Bernales, M., Miner, S., **Irarrázabal, L.,** & Molina, Y. (2006). Use of substances in women with social disadvantage: A risk factor for HIV/AIDS. *Revista Horizonte de Enfermería (Horizonte Journal of Nursing)* 17 (2) 15-22.

Cianelli, R., Ferrer, L., Bedegral, P**., Irarrázabal, L.,** Crittenden, K., Levy, Y. et als (2005) Testing an HIV/AIDS prevention intervention for Chilean Women. *Boletín Escuela de Medicina PUC,* 30(2) ,60-62.

VIII. PARTICIPATION IN SOME SCIENTISTS EVENTS, LAST 4 YEARS

2012 XIII Pan American Nursing Research Colloquium"Global Nursing Research Challenges for the Millennium"Miami Beach, Florida USA: oral presentation.

2010 II Congreso Internacional de salud pública, with an oral presentation "Determinantes de Conductas de Riesgo para VIH en Adultos del Sector Sur Oriente de Santiago un Estudio Piloto" [Determinants of HIV Risk Behaviors in Adults of the southern sector of Santiago, a pilot study]. Santiago Chile.

2010 III Encuentro internacional de Autocuidado y promoción de la salud: innovaciones interdisciplinarias en VIH y SIDA. Santiago with an oral presentation "test rápido para VIH con secreción oral: una alternativa plausible en la detección de VIH" [HIV rapid oral test a plausible alternative in the detection of HIV] University of Pontificia Universidad Catolica de Chile, Santiago

2009 X Nursing Education Conference with oral presentation "Partner Violence and Gender Roles among Low Income Chilean Women" Panama University, Panama.

2009 IV Municipal Conference of primary care, Concepcion, co-author to the oral presentation "Incorporating HIV prevention in primary care"

2008 I International Conference "La Universidad y la Atención a la diversidad Cultural: de la Discriminación A la inclusion" [The University and the attention to cultural diversity: of the discrimination to include] Centro de Extension Pontificia Universidad Católica de

Chile co-author of the oral presentation "Effect of an HIV and AIDS prevention intervention, in urban Mapuche women"

2008 *XVII International AIDS Conference*, México Co-author of oral presentation: *Healthcare workers and AIDS law: regulation and practice gaps?*

2007 *II Encuentro Internacional de Autocuidado y Promoción de la Salud*: Innovaciones en el manejo de enfermedades crónicas [International meeting of self-care and health promotion: innovations in Management of Chronic disease]. Extention department Pontificia Universidad Católica de Chile. Co- autor of the oral presentation*: Factores obstacularizadores y facilitadores para el autocuidado en VIH/SIDA, percibidos por hombres chilenos.[Factors obstacularizadores and facilitators for self- management in HIV/AIDS, collected by Chilean men]*.

2008 *International Nursing Research Conference Facing the Challenge of Healthcare Systems in Transition*. Jerusalem, Israel. Co-autor of the póster: *Issues for HIV prevention among low income Chilean women.*

2007 *IX Iberoamerican Conference in Education in Nursing* Toledo- España. Co-autor of the poster: Mujeres en desventaja social en Chile y su aproximación al VIH/SIDA [Women in social Disadvantage In Chile and its approach to HIV and AIDS]: *a challenge to nursing education.*

2007 I *Chilean Conference in Public Health at the XX century*: Perspectivas y desafíos [Prospects and Challenges] Hotel Sheraton. Santiago-Chile. Co-author of the poster: *Explorando Conocimiento, Actitudes y Conductas de prevención para VIH/SIDA en mujeres Mapuches Urbanas* [Exploring knowledge, attitude and behavior for HIV/AIDS prevention in Mapuche urban women].

2006 *XVI. International AIDS Conference*. Toronto-Candá.Co-autor CD-Rom. *Chilean men's myths, beliefs and behaviours affecting women's vulnerability to HIV/AIDS.*

IX. OTHER EXPERIENCE, REVIEWER:

2010 One of the External group reviewers of a publication related to HIV at the Journal *Investigación y Educación en Enfermería* [Research and Education in Nursing] from the University of Nursing in Antioquia.

2008- 2010 Member of the Ethic committee, School of Nursing, Pontifícia Universidad Católica de Chile.

Jan-July, 2010 Member of the organization committee of the III International Conference of self-care: Interdisciplinary innovations in HIV/AIDS, Pontifícia Universidad Católica de Chile December 2-3, 2010, Santiago Chile.

2006 FONIS FUNDs Reviewer of research projects CONICYT, Chile.

X. TEACHING; UNDERGRADUATE 2009 AND GRADUATE 2009-2008

2009 Course: Fundamentos Antropológicos y éticos de la enfermería [Anthropological and ethical Foundations of nursing] Sigla: ENF1123, Credits: 10

2009 Course: A changing Public and Healthcare System Sigla: Internship Washington, Credits: 10

2009 Course: Chile y Salud [Chile and Health], Sigla: Internship HL 395, Credits: 10

2009 Course: Cuidados de Enfermería del Adulto y Adulto Mayor [Nursing care of adult and elderly], Sigla: ENP2316, Credits: 30

2009 Course: Cuidados de Enfermería en la Mujer y el Recién Nacido [Nursing women and newborn care], Sigla: ENP2302, Credits: 30.

2009 Course: Sexualidad y autocuidado [Sexuallity and Self-care], Sigla: ENF 420, Credits: 10

2009 Courseof Master Program: Ética Legislación y Salud [Ethics Law and health] ENF 4030. Credits 10

2009 Course of Master program: Seminario de investigación Aplicada [Applied research seminar] ENO 4120, Credits 10

2008 Course of Master program: Debates actuales en teorías en enfermería [Current debates in theories in nursing] Sigla: ENF 4000, Credits: 10

2008 Course de Master program: Planificación y Evaluación de Programas de Salud [Planning and evaluation of health programs] Sigla: ENO 3101, Credits 10

2008 Course of Master program: Metodología de Investigación Cuantitativo [Quantitative research Methodology], Sigla: ENF 4100, Credits: 10