

Human Immunodeficiency Virus: Attitudes and knowledge among health professionals in Santiago, Chile

Virus de Inmunodeficiencia Humana: actitudes y conocimientos de profesionales de salud en Santiago, Chile

Catalina Ugalde, Universidad Mayor, Chile, Catalina.ugalde@mayor.cl
Dafna Benadof, Universidad Andrés Bello, Chile; dafna.benadof@unab.cl
Carolina Vidal, Universidad Mayor, Chile, carolina.vidal@umayor.cl
Ernesto González, Universidad Mayor, Chile, E.gonzalezmallea@gmail.com

ABSTRACT

Introduction: Nowadays there a significant increase of HIV cases is in Chile. It is imperative that health professionals have the necessary knowledge to provide adequate healthcare without stigmatizing people living with HIV/AIDS.

Objective: Determine health professionals' HIV level of knowledge and their willingness to attend people living with this virus. **Methods:** This quantitative, cross-sectional study used an online self-administered survey, that consisted on 15 questions. It evaluated the knowledge and attitudes in health professionals and technicians working in the West Metropolitan Health Centers in Santiago, Chile. **Results:** The response rate was 32.7% (n=235). 86.8% of participants said they felt safe doing medical procedures to people living with HIV, even though one out of ten said that they related the word fear with HIV; 52.4% were unaware of the clinical guidelines of the local Ministry of Health; and 42.7% incorrectly identified the use of double clinical gloves as a protective measure. **Conclusions:** The results of this study demonstrate that it is necessary to update and reinforce the knowledge about HIV and universal protective measures in health professionals..

KEYWORDS:

HIV, human immunodeficiency virus, knowledge, attitudes, health centers, health personnel, health care providers, guidelines

RESUMEN

Introducción: En Chile existe actualmente un aumento significativo de casos de VIH. Es imperativo que los profesionales de la salud tengamos el conocimiento necesario para poder atender adecuadamente y sin estigmatización a las personas que viven con VIH. **Objetivos:** Determinar nivel de conocimiento y disposición a atender a personas que viven con VIH.

Métodos: Estudio transversal en el que se utilizó una encuesta online a profesionales y técnicos de salud que trabajaban en Centros Metropolitanos de Salud Occidente en Santiago, Chile. **Resultados:** La tasa de respuesta fue 32,7% (n=235). Los resultados mostraron que un 86,8% de los participantes se sentía seguro al realizar procedimientos médicos a personas que viven con VIH, esto a pesar de que uno de cada diez relacionaba la palabra VIH con miedo; 52,4% desconocía las pautas clínicas del Ministerio de Salud local; y el 42,7% identificó incorrectamente el uso de doble guante como medida de protección. **Conclusiones:** Los resultados de este estudio demuestran que es necesario actualizar y reforzar, en los profesionales y técnicos de la salud, el conocimiento sobre VIH y medidas de protección universales.

PALABRAS CLAVE:

VIH, virus de inmunodeficiencia humana, conocimientos, actitudes, centros de salud, personal de salud, proveedores servicios de salud, pautas.

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INTRODUCTION

In the last decade HIV/AIDS incidence and prevalence have diminished, with about 36.9 million people living with HIV/AIDS (PLWHA) worldwide (UNAIDS; 2016) (UNAIDS; 2015). Reports from the European Union showed a stable incidence trend of HIV from 2011 to 2015, with approximately 30000 new cases per year (Pharris, A; *et al.*; 2015).

In Chile, the annual prevalence rate increased, between 2010 (21.4 cases for every 100.000 persons ≥ 13 years old) and 2015 (27.7 cases for every 100.000 persons ≥ 13 years old). The most vulnerable group was within the adults between 20 and 29 years of age, with a prevalence of infection of 40.4% (Instituto de Salud Pública; 2016). Another study showed that between 2008 and 2012, adolescents between 15 and 19 years of age, presented a 72% incidence of HIV notification (Departamento de Epidemiología; 2015). Overall, the statistics reported for the Chilean population are not promising.

To eliminate this overwhelming number of cases, nations have included guidelines that symbolize the commitment to eliminate this virus worldwide. At the core of these programs is the 2011-2015 guide for health sectors developed by the World Health Organization (WHO) Global Strategies (World Health Organization, 2011). In 2005 Chilean public policies were decreed to provide access and availability to HIV testing, accompanied

with counseling and treatment for HIV carriers (Departamento de Asesoría Jurídica; 2005) (Ministerio de Salud de Chile; 2013). Likewise, laws have been slowly implemented in several countries to help eliminate the discrimination and stigma associated with carrying this virus.

Stigma is the result of attitudes, acknowledged or not, that is often derived from misinformation (Foreman, M; Lyra, P; Breinbauer, C; 2003). Literature related to attitudes and knowledge of health professionals and PLWHA is increasing. In the last decade, articles in this topic have covered many aspects. For example, some articles aim to identify factors, such as attitudes, that affect adherence to treatment; others to evaluate how it affects the willingness of health professionals to treat; and some to focus on strategies that PLWHA use to manage negative attitudes towards them (Lam, Y; *et al.*; 2016) (Lee, C; *et al.*; 2017) (Brisdon, A; Abel, G; Desrosiers, J; 2017). Nevertheless, there are still regions in the world where studies in this topic are still scarce (Conejeros Vallejos, I; *et al.*; 2010).

In Chile the studies assessing the dimensions of knowledge and attitudes in health professionals is limited (Ferrer, L; *et al.* 2015) (Irarázabal, LP; 2016) (Rivas, E; 2009). This study contributes to the literature by providing a description of the attitudes and knowledge of health professionals, which can act as barriers or facilitators in the treatment of PLWHA.

METHODS

In this cross sectional study, the first inclusion criteria was to be a health professional or technician such as physicians, dentists, midwives, nurses, medical technologists or nurse technicians. They also had to work in the West Metropolitan Health Service health centers (SSMOcc) in Santiago, Chile. This Health Service has approximately 70 health centers, including hospitals, specialty centers, emergency care and primary health care centers.

To assess attitudes and knowledge of health professionals, the research team used a survey that evaluated the dimensions of HIV prevention, transmission and treatment knowledge, and attitudes towards treating PLWHA. The survey covered the most relevant topics as stated by the available literature, the opinions of experts, and the researchers' knowledge on the topic. Once the survey was tested and retested with researchers and experts in the field it was showed to the target population and their opinion was taken into account regarding the questions and answers categories (Converse, J; Presser, S; 1996). Lastly, the instrument reliability and internal consistency analysis was evaluated using Cronbach's alpha calculation. Considering minimum acceptable Cronbach's alpha 0.7 and the maximum expected value of 0.90 (Oviedo Celina, H; Campo-Arias, A; 2005).

Researchers used the following data collection process: 1) First-

ly, they contacted the directors of each health center via email, they disclosed the nature of the study and explained that it counted with the ethics committee approval. In the email body, the researchers asked for a contact list of all health professionals that met the inclusion criteria. 2) If the email was not answered in 7 days, a researcher from the team would call the director to verbally ask for the information and resolve any concerns he/she might had about the study. 3) All contact information was gathered in an excel file with password. 4) Then an email was sent to health professionals (n=719) inviting them to participate in the online survey that the researchers had created. To access the survey all participants had to previously read and agree to an informed consent document. 5) Two reminder emails were sent to the participants during the same month. Directors and healthcare professionals were reminded that at all times their participation was voluntary and their answers anonymous. The ethics committee of SSMOCC approved this research study.

A descriptive analysis with its correspondent frequency tables and graphs was done in order to show the distribution of the variables associated with attitudes and knowledge.

RESULTS

The response rate was 32.7% (n=235). Of these, 23 participants did not meet the inclusion criteria and were excluded of the study, obtaining a final sample of 212 participants.

The survey started with background questions of the participants, then there was a section that inquired about their attitude and knowledge about HIV. This second segment showed moderate

reliability (Cronbach Alpha=0,615), and no changes were made to the survey.

Nursing technicians were the most practiced health providers among the responders (27.4%; n=58), contrary to the nurse professionals (12.3%; n=26) that were the least. Of the participants, 42.9% (n=91) had practiced their profession for less than 5 years, 23.6% (n=50) from 6 to 10 years, and 21.7% (n=46) for more than 16 years. Most of the health professionals indicated that they had treated PLWHA; 73% (n=155) recorded this experience while working in the public health system, 26% (n=55) in a private clinic, and 1% (n=2) in a private practice. Also, it is important to mention, that 92.5% (n=196) had not received any HIV related training during the last 6 months.

When evaluating attitudes towards treatment of PLWHA, one out of 10 participants declared to feel fear, and 1 out of 3 participants thought that PLWHA were irresponsible people (Figure 1). 90.6% (n=192) declared their disagreement with the statement “I should be able to refuse to attend [PLWHA]”.

Regarding HIV related knowledge, wearing gloves (60.4%) and masks (43.8%) were correctly identified as protective measures for universal care (Figure 2). A 100% of the respondents identified that the HIV virus can spread through blood and fluids, and 94.8% said through semen; 99.5% identified sexual transmission as a route of HIV infection; and 49.5% (n=105) knew referral centers, within their health network that offered treatment to PLWHA.

Figure 1. Distribution of responses associated with HIV knowledge.

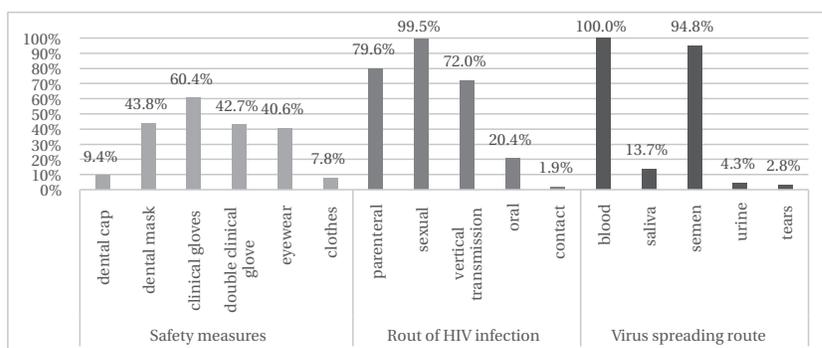
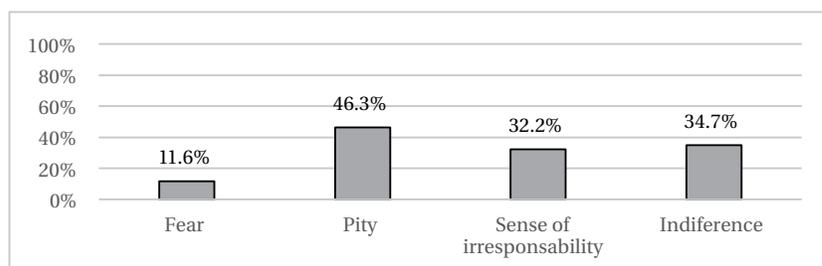


Figure 2: Distribution of attitudes towards treatment of PLWHA.



On the other hand, 52.4% (n=111) of the respondents did not know the clinical guidelines of the Chilean Ministry of Health; 66% (n=140) believed that strategies for diagnosis and prevention are age dependent; 1.9% stipulated that HIV can be transmitted by physical contact; and 2.8% by tears and 4.3% by urine. Finally, 42.7% of the participants indicated that using double glove works as barrier in case of contagion with a sharp object.

DISCUSSION

In Chile, the third chapter of the 17.779 law, states that no public or private health center may deny admission or care to people infected with HIV, or condition their attention to a preliminary examination (Departamento de Asesoría Jurídica, 2005). Four years after the implementation of this law a group of researchers evaluated the knowledge of a group of health professionals in this topic. They conducted a quasi-experimental study with a control and an educational intervention group. The initial evaluation showed poor results that varied between 16,3% in knowledge about the existence of this law to 44.7% of knowledge about the implementation it in their health field. The educational intervention group which received eight face-to-face learning sessions demonstrated having a significantly higher knowledge about the HIV bill than the control group (Ferrer, L; *et al.*;2011). Our study showed that health professionals also had limited knowledge in other topics related to HIV such as the use of double gloves as a protection health measure. This action alone could make people feel discriminated; therefore, it is necessary to develop a set of educational training tools, like the one used by Ferrer et al, to improve knowledge in HIV and other threatening virus such as Hepatitis B.

Studies show that 69% to 87% of PLWHA do not disclose their status to their health care provider, because they fear discrimination or rejection (Mayfield Arnold, E; *et al.*; 2008). Fear can act as a barrier for seeking healthcare, and could be increased if the healthcare professional showed restraint as well. In the present study, fear and willingness to attend PLWHA had low percentages; nevertheless, low percentages are insufficient, the healthcare system should aim to have a zero discrimination.

It is noteworthy that 92.5% of participants had not received any training or update in general knowledge about HIV during the last six months. Even though the availability of training tools has increased with time, there still is disinformation of HIV in a large sector of society, including the health system (Herrera, C; *et al.*;2008). Especially considering, that in Chile there was a 72.6% raise in the number of HIV confirmed cases between 2010 and 2015 (Instituto de Salud Pública, 2016). Other topics that should be covered during the training are the national clinical guidelines of care and indications for referral centers for treatment. The knowledge of HIV treatment and prevention is of extreme importance for every health professional and technician. The goal being that the treatment provided complies with international standards, and has high levels of adherence and efficacy.

A limitation in this study was that participants were mainly employees from the public health system. The strength is that this is the first study to provide a basic layout of the knowledge and attitude of health professionals towards treatment of PLWHA in Santiago, Chile. Future research studies should aim to determine the gaps in knowledge of health professionals in

order to develop interventions and training courses and evaluate them. Also, research at a national level is needed to evaluate stigmatization and discrimination at a healthcare level. ■■■

Autores:

Autores
Catalina Ugalde1
Dafna Benadof2
Carolina Vidal3
Ernesto Gonzalez4

1 Facultad de Odontología, Universidad Mayor, Chile, Catalina.ugalde@mayor.cl

2 Facultad de Odontología, Universidad Andrés Bello, Chile; dafna.benadof@unab.cl

3 Facultad de Odontología, Universidad Mayor, Chile, carolina.vidal@umayor.cl

4 Facultad de Odontología, Universidad Mayor, Chile, E.gonzalezmallea@gmail.com

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BIBLIOGRAFÍA

Brinsdon, A.; Abel, G.; Desrosiers, J. (2017). *I'm taking control": how people living with HIV/AIDS manage stigma in health interactions. AIDS Care - Psychological Socio-Medical Aspects of AIDS/HIV. 29(2):185–8.*
<https://doi.org/10.1080/09540121.2016.1204420>

Conejeros Vallejos, I.; Emig Sánchez, H.; Lagunas, LF; Valdés, BC.; Cianelli Acosta, R. (2010) *Conocimientos, actitudes y percepciones de enfermeros y estudiantes de enfermería hacia VIH/Sida. Revista de Investigación y Educación en Enfermería. 28(3).* <https://doi.org/10.17533/udea.iee.7589>

Converse, J.; Presser, S. (1996). *Survey questions. Handcrafting the standarized questionnaire. Sage Publications, editor. Sage University Paper Series on Quantitative Applications in the Social Sciences. Beverly Hills, CA.*

Departamento de Asesoría Jurídica. Ministerio de Salud de Chile. 2005 *Reglamento del Examen para la Detección del Virus de la Inmunodeficiencia Humana. Santiago, Chile; p. Ley 19779, Decreto No 182.*

Departamento de Epidemiología, Ministerio de Salud de Chile. (2015). *National Report: evolution of HIV/AIDS infection in Chile, 1984-2012. Revista Chilena de Infectología, 32, Suppl1: S17-43.*
<https://doi.org/10.4067/S0716-10182015000100003>

Ferrer L, Bernaldes M, Cianelli R, Cabieses B, Triviño X, Reed R, et al. *Mano a Mano for Health Professions Students in Chile: A Pilot HIV Prevention Program. Journal of the Association of Nurses in AIDS Care. 2015;26(5):680–8.*
<https://doi.org/10.1016/j.jana.2015.05.004>

Ferrer, L.; Cabieses, B.; Norr, K.; Cianelli, R.; Araya, A.; Irrarrázabal, L.; et ál. (2011). *Effectiveness of an educational program about the Chilean AIDS law in primary care health workers [Eficacia de una intervención educativa sobre conocimientos de ley chilena de SIDA en trabajadores de salud primaria]. Revista Médica de Chile. 139(5):625–32.*
<https://doi.org/10.4067/S0034-98872011000500010>

Foreman, M.; Lyra, P.; Breinbauer, C. (2003). *Understanding and responding to HIV/AIDS related stigma and discrimination in the health sector. Panamerican Health Organization. Washington DC.*

Herrera, C.; Campero, L.; Caballero, M.; Kendall, T. (2008). *Relación entre médicos y pacientes con VIH: Influencia en apego terapéutico y calidad de vida. Revista de Saude Publica. 42(2):249–55.*
<https://doi.org/10.1590/S0034-89102008000200009>

Instituto de Salud Pública de Chile. (2016). *Boletín de Vigilancia de laboratorio. Resultados de confirmación por VIH en Chile 2010-2015. Vol 6. Santiago, Chile.*

Irrarrázabal, LP; Levy, JA.; Norr, KF; Cianelli, R.; Issel, LM.; Pérez, CM.; et ál. (2016). *Predictors of readiness for oral rapid HIV testing by Chilean health care providers. Panamerican Journal of Public Health. 40(5):363–70.*

Lam, Y.; Westergaard, R.; Kirk, G.; Ahmadi, A.; Genz, A.; Keruly, J.; et ál. (2016). *Provider-level and other health systems factors influencing engagement in HIV care: A qualitative study of a vulnerable population. PLoS One.11(7):1–14.*
<https://doi.org/10.1371/journal.pone.0158759>

Lee, C.; Fan, Y.; Starr, JR.; Dogon, IL. (2017). *Dentists' and dental students' attitudes, knowledge, preparedness, and willingness related to treatment of people living with HIV/AIDS in China. Journal of Public Health Dentistry. 77(1):30–8.*
<https://doi.org/10.1111/jphd.12168>

Mayfield Arnold, E.; Rice, E.; Flannery, D.; Rotheram-Borus, MJ. (2008). *HIV disclosure among adults living with HIV. AIDS Care. 20(1):80–92.* <https://doi.org/10.1080/09540120701449138>

Ministerio de Salud. (2013). *Guía Clínica AUGE “Síndrome de Inmunodeficiencia Adquirida VIH/SIDA” [Internet]. Santiago, Chile.* <http://www.sidachile.cl/contenido/guias/GPCVIH.pdf>

Oviedo Celina, H.; Campo-Arias, A. (2005). *Aproximación al uso Coeficiente Alfa de Cronbach*. *Revista Colombiana de Psiquiatría*. 34(4):572–80. <https://doi.org/10.7705/biomedica.v26i4.327>

Pharris, A.; Quinten, C.; Noori, T.; Amato-Gauci, AJ; van Sighem, A; Schmid, D; et ál. (2015). *Estimating HIV incidence and number of undiagnosed individuals living with HIV in the European union/ European economic area*. *Eurosurveillance*, 21(48), 1-4. <https://doi.org/10.2807/1560-7917.ES.2016.21.48.30417>

Rivas, E.; Rivas, A.; Barría, M.; Sepúlveda, C. (2009). *Conocimientos y actitudes sobre Vih/Sida de estudiantes de enfermería de las universidades de la Frontera y Austral de Chile*. Temuco - Valdivia. Chile, 2004. *Ciencia y enfermería*. 15(1):109–19. <https://doi.org/10.4067/S0717-95532009000100012>

UNAIDS. (2016) *Global AIDS Update 2016*. Available from: <http://www.unaids.org/en/resources/documents/2016/Global-AIDS-update-2016>

UNAIDS. (2015) *How AIDS Changed Everything*. *Journal of Chemical Information and Modeling*, 53(9), 1689-99
World Health Organization. (2011). *Global health sector strategy on HIV/AIDS 2011-2015*. Geneva, Switzerland



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