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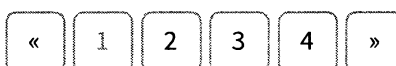
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*Chapter 14*

**TRANSLATION AND ADAPTATION  
OF AN INSTRUMENT TO MEASURE SEXUAL  
ATTITUDES IN MIGRANTS**

***Raquel A. Benavides-Torres, PhD\****

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**ABSTRACT**

HIV is a health problem in Latin American countries and in Mexico since there is a high migration to the United States. Due to their vulnerable situation, migrants engage in risky sexual behaviors that put them at risk of HIV infection. Favourable attitudes towards sex are significantly associated with sexual behaviour. However, to date there is no Spanish-language instrument that has been contextualized for use with the migrant population, so the aim of this study is to develop a Spanish-language version of an instrument to measure sexual attitudes in migrants through the process of translation and cultural adaptation by Chávez and Canino

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(2005). In the factor analysis, the first factor explains 18.57% of the total variance, the second factor explains 14.0% of the total variance and the third factor explains 11.22% of the total variance. Cronbach's Alpha was .84. The methodology used for the translation and adaptation of this instrument was adequate.

**Keywords:** sexual attitudes, migrants, HIV, validity, fidelity

## INTRODUCTION

An estimated 1.6 million people are living with HIV in Latin America, 75% of whom are concentrated in five countries in the region: Brazil, Mexico, Colombia, Venezuela and Argentina. During the last ten years the prevalence of HIV infection in adults (15-49 years) in Latin America has remained stable (about 0.4%). In countries that border Mexico, such as Belize, the reported prevalence is higher at 1.5%. In 2013, 5,087 new cases of HIV and 5,449 of AIDS were detected in Mexico, and as of September 30, 2014, 2,894 HIV cases and 2,785 AIDS cases had been reported. This makes a total of 172,254 from 1983 to 2014. The border states alone account for 43,679 cases, or more than 25% of the total from 1983 to 2014, with the border state of Tamaulipas in Mexico accounting for 4,034, or almost 10% (Centro Nacional para la Prevención y Control del VIH/SIDA [CENSIDA], 2015).

In the United States, there are an estimated 20 million cases of Sexual Transmitted Diseases (STDs) each year (Centers for Disease Control and Prevention, 2013). One possible cause of these infections is migration. Mexico has an important and complex dynamic of population mobility toward the United States: it is a receiving, transit and origin country for migrants (Consejo Nacional de Población [CONAPO], 2009). Since the beginning of the epidemic, HIV infection was linked to population movements. Epidemiology suggested that the increased spread of this infection was related to the number of mobile populations, as well as the diversity of migratory routes in different regions of the world (CONAPO, 2009). The causes of undocumented migration in Mexico and Central

America to the United States are linked to poverty, lack of opportunities and conditions of structural violence in the countries of origin, in addition to conditions such as corruption of authorities, human trafficking, trafficking of undocumented migrants, kidnapping, violence, robbery, extortion and mass executions, in this context a clear situation of vulnerability is determined (Instituto Nacional de Salud Pública, 2016).

Migration to the United States is influenced by many economic, social and cultural factors that have kept it a major phenomenon in recent years and that have recently contributed to an increase in it at the beginning of the 21st century (Magis-Rodríguez, Lemp, Hernández, Sanchez, Estrada, & Bravo-García, 2009). In recent years, Mexico has become a transit territory for thousands of migrants, especially from Central America, who enter through the southern border and move around the country with the intention of reaching the United States.

The conditions in which migrants transit through Mexico make them vulnerable to abuse, often leading them to engage in sexual behaviour considered risky, such as having sex with strangers for money. This, combined with the impossibility or difficulty of accessing health services, not only makes them vulnerable but also a source of infection for the spread of HIV or STDs.

There are many sociocultural, economic and political factors, both in countries of origin and destination, that influence the risk of immigrants to contract HIV infection. These factors include separation from spouses, families and known social and cultural norms; language barriers; poverty; substandard living conditions; and exploitation at work, including sexual violence (Programa Conjunto de las Naciones Unidas sobre el VIH/SIDA, 2008). Other determinants of the vulnerability of these groups include poor access to health-care services, difficulty in exercising and defending their rights, weak social support networks and poverty that characterizes both origin and transit. It also recognizes the difficulty of addressing the issue of migration in different priority areas such as sexual and reproductive health, violence, HIV/AIDS, human rights and discrimination (INSP, 2016).

One of the strategies to decrease HIV/AIDS in this population is through information that helps to improve attitudes related to the disease (Wang, et

al., 2018). Several studies mention that condom use can be promoted among migrants (Shen, et al., 2019) with more egalitarian attitudes (Ramirez-Ortiz, et al., 2018) and fewer attitudes of HIV/AIDS-related stigma (Yang, et al., 2015). Huang et al. (2011) conducted a study on 1,879 sex workers clients, aiming to estimate the prevalence of STIs among male in China. It found that only 15.3 percent of them reported that it was okay to have sex outside of marriage compared to 6.3 percent of non-clients ( $p < .05$ ). In addition, 38.5% of clients compared to 6.8% of non-clients ( $p < .001$ ) reported that it was okay to have sex for pleasure.

Li et al., (2009) conducted research with 2,821 young migrant workers to assess the prevalence of sexual behaviors and correlations among adolescents of migrant workers in China. They found that among all adolescents, compared to males, females showed higher scores in attitude towards sexual behaviors (15.05 vs 14.01,  $t = -2.32$ ,  $p < .05$ ) for adolescent migrant workers; (14.73 vs 13.82,  $t = -8.15$ ,  $p < .01$ ) for adolescent general residents.

According to the above, it can be said that unfavorable attitudes toward sex are significantly associated with resorting to risky sexual behaviors. However, to date there is no Spanish-language instrument that has been contextualized for use with the Spanish-speaking migrant population, so the objective of this study is to develop the Spanish version of an instrument to measure sexual attitudes in migrants through the process of translation and cultural adaptation.

### **Translation and Adaptation Process**

The first step in this process was to derive the concept from the most abstract to the most concrete. Figure 1 shows how the concept of sexual attitudes was derived from the concept of attitudes. Sexual attitude, which is the affective belief about the sexual behavior of the migrant, includes permissivity, communion and mediation. Once the concept had been defined, the next step was to select an instrument that was suitable for measuring it.



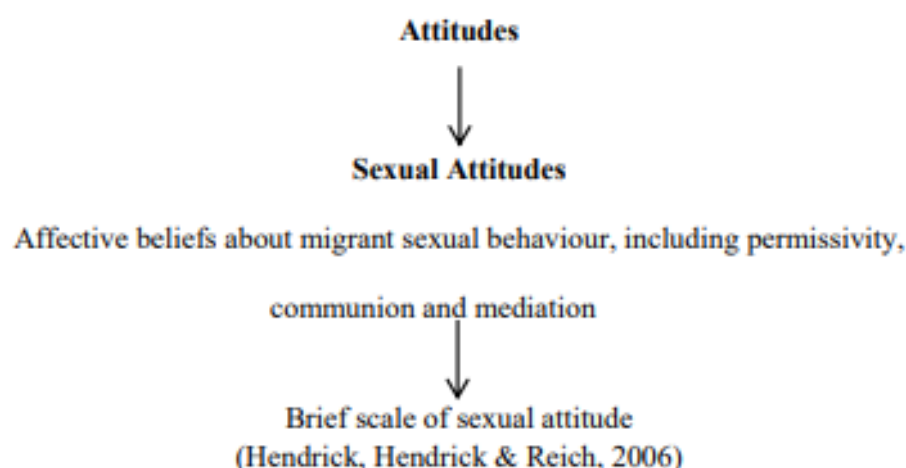


Figura 1. Abstract to Concrete.

## METHODS

The Short Sexual Attitude Scale was selected (Hendrick & Reich, 2006). This scale has 23 items divided into 4 subscales, permissivity, communion, mediation and birth control, of which only the first three were considered. Therefore, the instrument includes 20 items with answers in a 5-point likert scale, 1 = Very much agree to 5 = Very much disagree, an example is, it is okay to have casual/ second-hand sex. The results have been analyzed by means, which if low represent more sexual attitudes. The subscales have presented Cronbach's Alphas of Permissivity = .93, Communion = .71 and Mediation .77.

The methodology of Chávez and Canino (2005) was used to translate and adapt the instruments. The methodology consists of a series of systematic steps that manage to adapt the instrument to a specific cultural context given the range of differences that can be found. The first step was to have the instrument translated by a professional translator. Once the translation was acquired, the bilingual committee reviewed the instrument and it was subsequently revised by the multi-national bilingual committee of the University of California, San Diego.

**Table 1. Translation and adaptation process**

Original	Backtranslation	Alter Focus Group	Final	Final revised by committee
1.-I do not need to be committed to a person to have sex with him/her	I need to be engaged/committed to a person to have sex with her/him	No necesito estar comprometido(a) con una persona para tener relaciones sexuales con él/ella	No necesito estar comprometido(a) con una persona para tener relaciones sexuales con él/ella	No necesito estar comprometido(a) con una persona para tener relaciones sexuales con él/ella
2.-Casual sex is acceptable	It's okay to have casual sex	Está bien tener sexo de ocasión	Está bien tener sexo casual	Está bien tener sexo casual/de ocasión
3.-I would like to have sex with many partners	I would love to have sex with many partners	Me gustaría tener sexo con muchas parejas	Me gustaría tener sexo con muchas parejas	Me gustaría tener sexo con muchas parejas
4.-One-night stands are sometimes very enjoyable	One night stands are sometimes very pleasant	Encuentros de una sola noche son a veces muy placenteros	Encuentros de una sola noche son a veces muy placenteros	Encuentros de una sola noche son a veces muy placenteros
5.-It is okay to have ongoing sexual relationships with more than one person at a time	It's okay to have sex with more than one person at the same time	Está bien tener relaciones sexuales con más de una persona al mismo tiempo	Está bien tener relaciones sexuales con más de una persona al mismo tiempo	Está bien mantener relaciones sexuales con más de una persona a la vez
6.-Sex as a simple exchange of favors is okay if both people agree to it	Sex as an exchange of favors is okay as long as people engage agree to it	El sexo a cambio de favores está bien si ambas personas están de acuerdo	El sexo a cambio de favores está bien si ambas personas están de acuerdo	El sexo a cambio de favores está bien si ambas personas están de acuerdo
7.-The best sex is with no strings attached	Best sex has no restrictions	El mejor sexo es sin restricciones	El mejor sexo es sin restricciones	El mejor sexo es sin compromiso
8.-Life would have fewer problems if people could have sex more freely	Life would be of less problems if people could have sex more freely	La vida tendría menos problemas si la gente pudiera tener sexo con más libertad	La vida tendría menos problemas si la gente pudiera tener sexo con más libertad	La vida tendría menos problemas si la gente pudiera tener sexo con más libertad
9.-It is possible to enjoy sex with a person and not like that person very much	It is possible to enjoy sex with a person you don't like very much	Es posible disfrutar el sexo con una persona y que esa persona no te guste mucho.	Es posible disfrutar el sexo con una persona y que esa persona no te guste mucho.	Es posible disfrutar el sexo con una persona y que esa persona no te guste mucho.
10.-It is okay for sex to be just good physical release	It's okay for sex to be just a good physical release	Está bien que el sexo sea sólo para un buen desahogo físico.	Está bien que el sexo sea sólo para un buen desahogo físico.	Está bien que el sexo sea sólo para un buen desahogo físico.
11.-Sex is the closest form of communication between two people	Sex is the closest form of communication between two individuals	El sexo es la forma más cercana de comunicación entre dos personas	El sexo es la forma más cercana de comunicación entre dos personas	El sexo es la forma más cercana de comunicación entre dos personas
12.-A sexual encounter between two people deeply in love is the ultimate human interaction	A sexual encounter between two individuals deeply in love is the ultimate human interaction	Un encuentro sexual entre dos personas profundamente enamoradas es la mejor interacción humana	Un encuentro sexual entre dos personas profundamente enamoradas es la mejor interacción humana	Un encuentro sexual entre dos personas profundamente enamoradas es la mejor interacción humana

Original	Backtranslation	After Focus Group	Final	Final revised by committee
13.-At its best, sex seems to be the merging of two souls	At best instance, sex seems to be the merging of two souls	En el mejor de los casos, el sexo parece ser la unión de dos almas	En el mejor de los casos, el sexo parece ser la unión de dos almas	En su mejor expresión, el sexo parece ser la unión de dos almas
14.-Sex is a very important part of life	Sex is one of the most important parts of life	El sexo es una parte muy importante de la vida	El sexo es una parte muy importante de la vida	El sexo es una parte muy importante de la vida
15.-Sex is usually an intensive, almost overwhelming experience	Sex is generally an overwhelming experience, almost extraordinary	El sexo es por lo general una experiencia intensa, casi extraordinaria	El sexo es por lo general una experiencia intensa, casi extraordinaria	El sexo es por lo general una experiencia intensa, casi impresionante
16.-Sex is best when you let yourself go and focus on your own pleasure	Sex is the best when you let yourself go and focus on your own pleasure	El sexo es lo mejor cuando te dejas llevar y te concentras en tu propio placer	El sexo es lo mejor cuando te dejas llevar y te concentras en tu propio placer	El sexo es lo mejor cuando te dejas llevar y te concentras en tu propio placer
17.-Sex is primarily the taking of pleasure from another person	Sex is mainly about taking pleasure of someone else	El sexo es principalmente tomar placer de otra persona	El sexo es principalmente tomar placer de otra persona	El sexo es principalmente tomar placer de otra persona
18.-The main purpose of sex is to enjoy oneself	The main purpose of sex is to enjoy oneself	El principal objetivo del sexo es disfrutar de uno mismo	El principal objetivo del sexo es disfrutar de uno mismo	El principal objetivo del sexo es disfrutar de uno mismo
19.-Sex is primarily physical	Sex is mainly physical	El sexo es principalmente físico	El sexo es principalmente físico	El sexo es principalmente físico
20.-Sex is primarily a bodily function, like eating	Sex is mainly a bodily function, like eating	El sexo es principalmente una función corporal, como comer	El sexo es principalmente una función corporal, como comer	El sexo es principalmente una función corporal, como comer

Once the adjustments suggested by the committees were made, focus groups were held with migrants with characteristics similar to those of the study population (migrants of both sexes, those who have already initiated their sexual life, those over 18 years of age and those who have lived in the locality where they were surveyed for less than two years). In total, three focal groups were carried out with 6 to 8 people, each of the subjects was given a set of instruments and a pencil, while the interviewer went through the questions one by one and asked if they were understandable, in case they were not understandable for any of them, the meaning of the question was explained and they were invited to write it in a simpler or understandable way, taking care not to lose the context and meaning of the question. Once the participant gave a choice about the possible wording or change of words, the rest of the participants were asked if it was suitable for them too. If it was not suitable for them as a whole, the question was written until an agreement was reached among the group. The facilitator took note of each of the focus group observations.

After the suggestions of the focal groups were gathered, they were reviewed again by committee and the changes considered most relevant were added. Next making the changes to the instrument, it was sent back to a translator with a graduate degree in Spanish/English Interpretation and Translation Arts (back translation) and both English versions of the instrument were revised. In the following table you can see the process mentioned.

### **Data Analysis**

A psychometric analysis was performed, for internal consistency Cronbach's Alpha was used, Bartlett's sphericity test was used for construct validity and exploratory factor analysis with varimax rotation.



## RESULTS

The instrument was applied to migrants from the cities of Matamoros and Reynosa, Tamaulipas, Mexico, the sample consisted of 311 participants. The sample consisted of 311 participants. 88.4% were male, 45.0% were single, the mean age was 33.43 (SD = 10.06) and the years of study were 8.09 (SD = 3.56).

### Descriptive Statistics

The permissivity subscale presents a higher average than 60, this indicates a lower permissive sexual attitude in the participants ( $M = 63.31$ ,  $SD = 24.11$ ), followed by sexual attitude mediation ( $M = 51.12$ ,  $SD = 28.79$ ) and finally communion ( $M = 25.68$ ,  $SD = 23.35$ ).

### Psychometric Properties of the Instrument

Through confirmatory factor analysis with varimax rotation, the load of the items and the relevance with the original scales were verified, with the objective of obtaining construct validity. Likewise, internal consistency analysis was performed for the whole scale and their subscales using Cronbach's Alpha (Table 4).

**Table 2. Measures of central tendency and dispersion of facilitators and inhibitors**

Variable	<i>M</i>	<i>Mdn</i>	<i>DE</i>	<i>Variance</i>	<i>Min</i>	<i>Max</i>
Sexual attitude						
Permissivity	63.31	65.00	24.11	*581.54	7.50	0.100
Communion	25.68	20.00	23.35	*545.61	0.00	0.100
Mediation	51.12	50.00	28.79	*829.38	0.00	0.100

Note:  $n = 301$ ; *Mdn* = Median; *SD* = Standard deviation

The extraction was carried out with three fixed factors corresponding to the three subscales used: permissivity, communion and mediation. In the following table it is observed that the factors show a load according to the order of the original subscale with some slight variations, in the case of the item 11, this is loaded with the items of the mediation subscale, however it belongs to the communion subscale. In this analysis the first factor explains 18.57% of the total variance, the second factor explains 14.0% of the total variance and the third factor explains 11.22% of the total variance (Table 3).

**Table 3. Confirmatory factor analysis with varimax rotation: short scale of sexual attitude**

Items	Permissivity	Mediation	Communion	Extraction
5	<b>.726</b>	.032	-.004	.529
3	<b>.671</b>	.105	.187	.496
2	<b>.670</b>	.213	-.021	.495
7	<b>.617</b>	.088	.027	.389
4	<b>.596</b>	.308	.049	.453
9	<b>.541</b>	.072	.038	.299
6	<b>.538</b>	.163	.061	.320
1	<b>.514</b>	.058	-.017	.268
10	<b>.487</b>	.357	.085	.372
8	<b>.413</b>	.297	.146	.280
18	.092	<b>.761</b>	.004	.587
19	.157	<b>.723</b>	.085	.555
16	.058	<b>.716</b>	.232	.570
20	.180	<b>.522</b>	.057	.309
17	.354	<b>.485</b>	-.043	.362
11	.180	<b>.470</b>	.324	.358
13	-.073	.041	<b>.757</b>	.580
14	.178	.039	<b>.695</b>	.516
12	-.072	.174	<b>.687</b>	.507
15	.164	.116	<b>.687</b>	.512
% variance	18.57*	14.00*	11.22*	
% cumulative	18.57*	32.57*	43.79*	

Note: n = 301; \* item located on a different scale than the original

**Table 4. Internal consistency of instrument and subscales**

Instrument	No. Items	$\alpha$
Sexual attitude	20	.84
Permissivity*	10	.81
Communion*	05	.67
Mediation*	05	.72

Nota: n = 311;  $\alpha$  = Alpha de Cronbach; \* Subescalas

Finally, an internal consistency analysis was performed with Cronbach's Alpha statistic with a score of 0.84. However, the Alphas of the subscales were obtained separately and it was observed that the consistency was marginally reduced, the details can be seen in the following Table.

## DISCUSSION

It was also found that migrants presented negative beliefs about certain sexual behaviors that are considered to be risky, such as having multiple sexual partners, casual partners, and general sexual licentiousness (sexual permissiveness). They were also found to believe that the practice of sexual behaviors, which involve feelings of love, where their main characteristic is the union of two people with feelings of mutual love (sexual attitude communion) or with beliefs about sexual relations being the means to a certain end, usually to obtain pleasure for oneself or another person and thus physically enjoy sexual contact (sexual attitude mediation).

Wang, Muessig, Li, and Zhang (2014) in their study mention that the perception of sexual risk is influenced by exposure to new sexual attitudes in urban areas, i.e., rural migrants upon entering urban areas change their position towards sexuality for a more open one, and this makes them less perceptive towards the risk of contracting HIV. This finding is very similar to that of the present study, since in both cases it can be observed that as long as migrants lean towards a permissive or more open sexual attitude

towards various sexual behaviours considered to be risky, they will be less able to warn that what they are doing may generate problems that directly impact their sexual health.

Solorio, Forehand, and Somoni (2013) conducted a study with Latino men who have sex with men immigrants to examine their beliefs and attitudes toward HIV testing, including their perceived barriers and facilitators associated with testing. They found that those migrants who did not get tested for HIV tended to have more open sexual attitudes, such as having more than one sexual partner.

## **CONCLUSION**

The methodology used for the translation and adaptation of this instrument was appropriate. It is suggested that the instrument be used in other populations, to make it known and useful in future studies aimed at researching responsible sexuality. It is recommended to continue using this scale in different contexts and with populations with similar sexual vulnerability and risk characteristics.

## **APPENDIX**

### **Escala Breve de Actitud Sexual**

(Subescalas de permisividad, comunión y mediación)

Seleccione la respuesta que considere correcta de acuerdo a lo que se pregunta. Elija sólo una respuesta por pregunta

Pregunta	1. Muy de acuerdo	2. Moderadamente de acuerdo	3. Ni de acuerdo ni en desacuerdo	4. Moderadamente en desacuerdo	5. Totalmente en desacuerdo
1. No necesito estar comprometido(a) con una persona para tener relaciones sexuales con él/ ella					
2. Está bien tener sexo casual/de ocasión					
3. Me gustaría tener sexo con muchas parejas					
4. Encuentros de una sola noche son a veces muy placenteros					
5. Está bien mantener relaciones sexuales con más de una persona a la vez					
6. El sexo a cambio de favores está bien si ambas personas están de acuerdo					
7. El mejor sexo es sin compromiso					
8. La vida tendría menos problemas si la gente pudiera tener sexo con más libertad					
9. Es posible disfrutar el sexo con una persona y que esa persona no te guste mucho					
10. Está bien que el sexo sea sólo para un buen desahogo físico.					
11. El sexo es la forma más cercana de comunicación entre dos personas					
12. Un encuentro sexual entre dos personas profundamente enamoradas es la mejor interacción humana					
13. En su mejor expresión, el sexo parece ser la unión de dos almas					
14. El sexo es una parte muy importante de la vida					
15. El sexo es por lo general una experiencia intensa, casi impresionante					
16. El sexo es lo mejor cuando te dejas llevar y te concentras en tu propio placer					
17. El sexo es principalmente tomar placer de otra persona					
18. El principal objetivo del sexo es disfrutar de uno mismo					
19. El sexo es principalmente físico					
20. El sexo es principalmente una función corporal, como comer					

## REFERENCES

Centro Nacional para la Prevención y el Control del VIH y el sida [CENSIDA]. (2015). *Vigilancia Epidemiológica de casos de VIH/SIDA en México Registro Nacional de Casos de SIDA Actualización al cierre de 2015* [Epidemiological Surveillance of HIV / AIDS cases in Mexico National Registry of AIDS Cases Update at the end of 2015]. Accessed



- October 19, 2019. [http://www.censida.salud.gob.mx/descargas/epidemiologia/RN\\_Cierre\\_2015.pdf](http://www.censida.salud.gob.mx/descargas/epidemiologia/RN_Cierre_2015.pdf).
- Centers for Disease Control and Prevention. (2013). *Incidence, Prevalence, and Cost of Sexually Transmitted Infections in the United States*. Accessed November 15, 2019. <https://www.cdc.gov/std/stats/sti-estimates-fact-sheet-feb-2013.pdf>.
- Chávez, L. M. & Canino, G. (2005). *Toolkit on translating and adapting instruments*. Accessed October 19, 2019. [https://www.hsri.org/files/uploads/publications/PN54\\_Translating\\_and\\_Adapting.pdf](https://www.hsri.org/files/uploads/publications/PN54_Translating_and_Adapting.pdf).
- Consejo Nacional de Población [CONAPO] (2009). *Las políticas públicas ante los retos de la migración mexicana a Estados Unidos* [Public policies facing the challenges of Mexican migration to the United States]. Accessed December 12, 2019. [http://www.conapo.gob.mx/work/models/CONAPO/migracion\\_internacional/politicaspUBLICAS/COMPLETO.pdf](http://www.conapo.gob.mx/work/models/CONAPO/migracion_internacional/politicaspUBLICAS/COMPLETO.pdf).
- Hendrick, C., Hendrick, S. S. & Reich, D. A. (2006). "The brief sexual attitudes scale". *Journal of Sex Research*, 43, 76-86.
- Huang, Z. J., Wang, W., Martin, M. C., Nehl, E. J., Smith, B. D., & Wong, F. Y. (2011). "Bridge population: sex workers or their clients? - STI prevalence and risk behaviors of clients of female sex workers in China". *AIDS Care*, 23, 45-53.
- Instituto Nacional de Salud Pública. (2016). *Migrantes en Tránsito por México: situación de salud, riesgos y acceso a servicios de salud* [Migrants in Transit through Mexico: health situation, risks and access to health services]. Accessed October 19, 2019. [https://www.insp.mx/resources/images/stories/2018/Docs/180724\\_Migrantes\\_transito\\_16may.pdf](https://www.insp.mx/resources/images/stories/2018/Docs/180724_Migrantes_transito_16may.pdf).
- Li, S., Huang, H., Cai, Y., Xu, G., Huang, F., & Shen, X. (2009). "Characteristics and determinants of sexual behavior among adolescents of migrant workers in Shanghai (China)". *BMC Public Health*, 9, 54-53.
- Magis-Rodríguez, Carlos., Lemp, G., Hernandez, Maria Teresa., Sanchez, Melissa Ann., Estrada, Fatima. & Bravo-García, Enrique. "Going North: Mexican Migrants and Their Vulnerability to HIV". *JAIDS Journal of Acquired Immune Deficiency Syndromes*, 51, S21-S25.

- Programa Conjunto de las Naciones Unidas sobre el VIH/Sida [ONUSIDA] (2008). *Nueva política de ONUSIDA sobre el VIH y la migración internacional de la mano de obra*. [New UNAIDS policy on HIV and international labor migration], Accessed October 19, 2019. <https://www.unaids.org/es/resources/presscentre/featurestories/2008/july/20080716newunaidspolicyhivandintlabourmig>.
- Ramírez-Ortiz, D., Rojas, P., Sánchez, M., Cano, M. Á., & De La Rosa, M. (2018). "Associations of Self-Silencing and Egalitarian Attitudes with HIV Prevention Behaviors Among Latina Immigrant Farmworkers". *Journal of Immigrant and Minority Health*, 21, 430-433.
- Shen, Q., Wang, Y., Wang, Z., Wang, Y.; Luo, M., & Wang, S. (2019). "Understanding condom use among unmarried female migrants: a psychological and personality factors modified information-motivation-behavioral skills model". *BMC Public Health*, 19, 1-11.
- Solorio, R., Forehand, M., & Simoni, J. (2013). "Attitudes towards and Beliefs about HIV Testing among Latino Immigrant MSM: A Comparison of Testers and Nontesters". *AIDS Research and Treatment*, 1-10.
- Wang, W., Muessig, K. E., Li, M., & Zhang, Y. (2014). "Networking Activities and Perceptions of HIV Risk Among Male Migrant Market Vendors in China". *AIDS and Behavior*, 18, 142-151.
- Wang, W., Chen, R., Ma, Y., Sun, X., Qin, X., & Hu, Z. (2018). "The impact of social organizations on HIV/AIDS prevention knowledge among migrants in Hefei, China". *Globalization and Health*, 14, 1-9.
- Yang, B., Wu, Z., Schimmele, Ch. M., & Li, S. (2015). "HIV knowledge among male labor migrants in China". *BMC Public Health*, 15, 1-8.