Salud Mental
ISSN: 0185-3325
perezrh@imp.edu.mx
Instituto Nacional de Psiquiatría Ramón de la Fuente Muñiz
México

Marín-Navarrete, Rodrigo; Magis-Rodríguez, Carlos; Strathdee, Steffanie A.
Sexually transmitted infections and substance use disorders: evidence and challenges in Mexico
Salud Mental, vol. 40, núm. 1, enero-febrero, 2017, pp. 1-4
Instituto Nacional de Psiquiatría Ramón de la Fuente Muñiz
Distrito Federal, México

EDITORIAL

Sexually transmitted infections and substance use disorders: evidence and challenges in Mexico

Rodrigo Marín-Navarrete,[1] Carlos Magis-Rodríguez,[2] Steffanie A. Strathdee[3]

[1] Unidad de Ensayos Clínicos en Adicciones y Salud Mental, Instituto Nacional de Psiquiatría Ramón de la Fuente Muñiz.

[2] Centro Nacional para la Prevención y Control del VIH y el SIDA (CENSIDA).

[3] Division of Global Public Health, University of California, San Diego, School of Medicine.

Correspondence:
Rodrigo Marín-Navarrete.
Unidad de Ensayos Clínicos en Adicciones y Salud Mental, Instituto Nacional de Psiquiatría Ramón de la Fuente Muñiz.
Calz. México-Xochimilco 101
San Lorenzo Huipulco, Tlalpan
14370, Mexico City.
Phone: +52 (55) 4160-5480.
E-mail: rmarin@imp.edu.mx

doi.org/10.17711/SM.0185-3325.2017.001

Epidemiology of STI in substance abusers

According to international reports, Mexico has a high prevalence of sexually transmitted infections (STIs), such as human immunodeficiency virus (HIV), hepatitis B virus (HBV) and hepatitis C virus (HCV). There are approximately 34 million people infected with HIV (National Center for Prevention and Control of HIV-AIDS [CENSIDA], 2011), between 130 and 150 million with HCV (WHO, 2014a), approximately 400 million with HBV (Hepatitis B Foundation, 2014), and 12 million infected with syphilis every year (WHO, 2014b).

Great strides have been made in the understanding, treatment and prevention of STIs. For example, the updating of transfusion protocols and standards in 2000 has significantly reduced the incidence of HCV infections by this means (Mathers et al., 2008). On the scientific and public health policy agendas, however, concern remains about specific populations with a greater risk of infection than the general population, such as substance abusers, who are estimated to have a high prevalence of STI (Scheinmann et al., 2007).

Scientific literature reports that HIV prevalence at addiction treatment centers is approximately 3% among non-injection substance users, as opposed to 27% among injection substance users (Lehman, Allen, Green & Onorato, 1994; Prevots et al., 1996). At the same time, a number of studies show that the prevalence of HCV among injection substance users is above 50% (Aceijas & Rhodes, 2007), with the largest user populations being found in China, the United States and Russia (Nelson et al., 2011). This information is particularly important in view of the fact that the risk of developing chronic diseases after exposure to HCV is higher among substance abusers than non-users (Page et al, 20093; Piasecki et al., 2004; Poustchi et al., 2011), and over ten times higher among those with substance use disorders (SUD) and other psychiatric disorders (OPD) when compared to the general population (Rosenberg et al. 2001).

Studies in Mexico report that the prevalence of HIV in non-injection substance users oscillates between 3.7% and 4% (Deiss et al., 2012; Magis-Rodríguez et al., 2005), while one study on the northern border of Mexico found that 96% of injection drug users tested positive for HCV antibodies, while 2.8% were HIV positive. Several studies have also reported that intravenous or intranasal substance users with HIV have an increased risk of HCV co-infection (Alvarado-Esquivel, Sablon, Martínez-García & Estrada-Martínez, 2005; White et al, 2007).

Another study conducted at outpatient treatment centers for addictions and prisons in the west of Mexico reported a prevalence of 4.1% of HCV, 5.7% of HBV and 1.6% of HIV in the outpatient sample, together with 40% of HCV, 20% of HBV and 6.7 of HIV in the prison sample (Campollo et al., 2012).

Despite progress in this field, there are still very few studies in Mexico on STI in substance abusers. However, available data suggest that substance abusers are a high-risk population in comparison with the general population, which has a much lower prevalence (0.2% of HIV and 2% of HCV) (CENSIDA, 2011; Quer & Mur, 2014).

Risky behaviors in substance abusers

The scientific literature has established a link between substance abuse, risky sexual behavior and STIs. First, substance use can itself constitute risky behavior, since some forms of substance use, such as the use of stimulants like methamphetamines and cocaine increases the likelihood of having sex with multiple partners and not using a condom (Barta et al., 2008; Brown & Vanable, 2007). Second, it has been estimated that the prevalence of blood-borne infectious diseases is higher among injection substance users than among those who do not inject, since these are easily transmitted by sharing the paraphernalia used to administer drugs. However, some types of infection can also be acquired through the use of contaminated utensils for preparing (cooking) the drug, such as filters, tourniquets and water for rinsing, which may be enough to infect other users (Strathdee et al., 2008). Third, addiction can increase the likelihood of an exchange of substances for sex (Deiss et al., 2012).

Barriers to STI treatment in substance abusers

Among substance abusers, there are individual factors limiting help-seeking for their detection, diagnosis and treatment. These factors include lack of knowledge about medical comorbidities and their impact on health, misperceptions about STIs and their treatment (Grebely & Tyndall, 2011; Treloar, Hull, Dore & Grebely, 2012), absence of symptoms, unemployment, unstable housing, social stigma and barriers to accessing specialized health services (Grebely & Tyndall, 2011; Treloar, Newland, Rance & Hopwood, 2010).

Various studies have shown that other significant factors associated with barriers to accessing treatment for STIs include: comorbidity with other medical diseases (Ho et al., 2008), SUD and OPD (Evon et al., 2013; Lieveld et al., 2013).

Common reasons why people with active substance use are inappropriately denied the treatment are: a) serious side effects resulting from the pharmacological interaction of HIV antiretrovirals with opioid agonist treatments like methadone, b) lower response rates due to liver damage caused by alcohol use, and c) concerns about continuous risk of reinfection due to re-exposure to the virus after treatment (Edlin, 2002; Mathurin, Canva, Dharancy & Paris, 2002; Peters & Terrault, 2002). These are remediable and should therefore not be contra-indications for treatment.

Other factors include treatment costs (Moirand, Bilodeau, Brissette & Bruneau, 2007), lack of infrastructure, limited accessibility and long waiting lists for gaining access to evaluation and treatment services (Grebely & Tyndall, 2011; Swan et al., 2010) as well as the difficulties of ensuring that health professionals adopt screening, assessment and treatment procedures (Pai, Vadnais, Denkinger, Engel & Pai, 2012).

Early detection and initiation of STI treatment in substance abusers

According to available scientific evidence, early detection of STIs is one of the most important preventive strategies, since it is estimated that a large percentage of infections occur through people who are unaware of their HIV status (Hall, Holtgrave & Maulsby, 2012). It is also known that people decrease risky sexual behavior once they are told they have positive serostatus (Marks, Crepaz, Senterfitt & Janssen, 2005). Moreover, there is evidence that people who enter treatment reduce the likelihood of infecting others (Cohen & Gay, 2010).

These benefits of early detection suggest that performing rapid STI tests is highly recommended because: a) it has been shown that they can assist in detection with a diagnostic efficiency level of over 95% (Kyle et al., 2015), b) they are cost-effective and easily transportable (Schackman et al., 2013), c) they are highly accepted by patients (Schackman et al., 2013), and d) they contribute to narrowing the gap between infection and late initiation of treatment (Leber et al., 2015).

STIs in people with SUD: a challenge for Mexico

The situation of STIs in people with SUD poses a challenge for the public health system in Mexico, since, despite efforts made to date to research and address this specific population, there is a gap between the public services for treating STI and those addressing SUD. The corollary of scientific evidence clearly indicates that patients with SUD have a high prevalence of psychiatric comorbidity. This co-occurrence between SUD and OPD also significantly increases risky sexual behavior and risky use behaviors, both of which are directly associated with a high risk of transmission of STIs (Marín-Navarrete et al., 2016).

Moreover, Mexico has limited coverage of public residential services for people with severe SUD. Accordingly, the past 20 years have seen a growing offer of non-profits with more than 2000 self-help based residential centers. (Marín-Navarrete et al, 2016; Pagano, García, Recarte & Lee 2016). It has also been documented that most of these residential centers lack the physical infrastructure and qualified professionals for proper patient care (Marín-Navarrete et al, 2016; Pagano, García, Recarte & Lee, 2016), and in extreme cases, violations of patients' human rights have been reported (Lozano-Verduzco, Romero-Mendoza & Marín-Navarrete, 2016; Lozano-Verduzco, Marín-Navarrete, Romero-Mendoza & Tena-Suck, 2016). This hampers the implementation of algorithms for early detection of STIs

and reference and counter-reference procedures designed to reduce the treatment dropout due to the patient's navigation in a complex, divided health system.

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