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Essential aspects and practical implications of sexual identity

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SUMMARY

Sexual identity is a multidimensional construct that includes sex identity, gender identity, socio-sexual identity, and erotic identity. Sexual identity has theoretical and practical implications for sexual and reproductive health. For adults, concordance among biological sex, gender and role identity, and erotic identity is expected. However, 10% of the general population reports itself as non-heterosexual and another significant percent shows discordant sexual behavior with sexual identity. This narrative review clarifies the concepts of sexual identity, gender identity, socio-sexual identity, and erotic identity and presents some practical issues of an inappropriate use of these constructs in public health.

Keywords*: Sexual behavior; Gender identity; Sexual and reproductive health; Public health; Review.*

Aspectos fundamentales e implicaciones prácticas de la identidad sexual

RESUMEN

La identidad sexual es un constructo multidimensional que incluye la identidad de sexo, la identidad de género, la identidad socio-sexual y la identidad erótica. La identidad sexual tiene implicaciones teóricas y prácticas en salud sexual y reproductiva. En adultos se espera que exista una congruencia entre el sexo biológico, la identidad, la función de género y la identidad erótica. Sin embargo, 10% de la población se considera no heterosexual y un porcentaje importante muestra comportamiento sexual que no está de acuerdo con la identidad sexual. Esta revisión narrativa clarifica los conceptos de identidad de sexo, identidad de género, identidad erótica e identidad socio-sexual y muestra algunas implicaciones prácticas del uso inapropiado de estos términos en el contexto de la salud pública.

Palabras clave*: Conducta sexual; Identidad de género; Salud sexual y reproductiva; Salud pública; Revisión.*

Sexual identity is a multidimensional construct, which has changed over time. Today, the definition of the concept from a medical perspective may vary according to interests from physical and mental health professionals: clinical or research. Sexual identity involves gender identity (comfort with primary and secondary sexual characteristics), erotic identity or sexual orientation (erotic attraction to a particular gender), gender identity (the expected behaviors in a cultural context according to biological sex at birth), or socio-sexual identity (self-identification with a particular social group)[1]. However, the concept of sexual identity should not be confused on the activity or behavior and sexual practices. Sexual activity is defined as the behavioral expression of sexuality, and sexual practices as the patterns of sexual activity, which people or communities show consistently[2].

The different connotations of the concept of sexual identity have theoretical and practical implications in sexual and reproductive health from the perspective of public health. For example, the estimation of the prevalence of homosexuality or bisexuality in a population depends on the operative definition of the concept according to the activity, the erotic identity, or the socio-sexual identity[3] and, consequently, on the definition of a particularly vulnerable group to sexually transmitted infections, discrimination, or social exclusion.

This narrative review has two objectives: to clarify the concepts of sexual identity, gender identity, erotic identity, and socio-sexual identity, and to show some practical implications of the inappropriate use of these terms within the context of public health.

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CONCEPTUAL ACCURACIES

Sexual identity, as a whole, is a very complex concept that encompasses four distinctly different and highly rated elements: sexual identity, gender identity, erotic identity or sexual orientation, and socio-sexual identity[1,4]. However, the term is sometimes used to refer only to one of these components leading to confusion[1].

Sex identity. Refers to the level of acceptance or rejection an adult feels or expresses about the physical characteristics, which are specific to the biological sex at birth[2,4]. These characteristics are defined by essentially biological elements. The presence or absence of the SRY gene (sex-determining region on the Y chromosome), which is normally found on chromosome Y is almost limited. The presence of this gene encodes a group of proteins which regulates the production of testosterone in the testicle of the forming embryo[5].

Generally, the presence of one functional X chromosome and one functional Y chromosome is phenotypically associated with a man or boy, and with two complete X chromosomes, with a woman or girl[6]. Usually, people who report discomfort with biological, primary, and secondary features of own biological sex and want the phenotype of the opposite sex are known as transgender or transexual[7].

Gender identity. Gender identity refers to the degree of acceptance or discomfort which an adult manifests in terms of behavioral and emotional characteristics expected for a person, according to biological sex, to show within the interaction with other people[8]. The pattern of gender-type behavior varies widely from one social and cultural context to another[9]. The typical behavior of gender is built within a social context. So, femininity is routinely expected from women and masculinity is desirable for men. This is a complex and purely social and cultural construction[7,10].

A concept closely related to gender identity is gender role. Gender role refers only to observable behaviors commonly considered feminine or masculine within a culture or society. This is the daily experience of masculinity or femininity[2,8].

Traditionally, people expect concordance between biological sex and gender (identity and role). However, some people want to take gender characteristics of the opposite sex and only wear clothing, incorporate gestures and attitudes without subjective discomfort of the characteristics of their own sex and without the presence of a strong desire for permanent change of primary and secondary sexual characteristics of biological sex. People who show this pattern are called transvestis[7].

Erotic identity or sexual orientation. Erotic identity describes the biological sex of the person who frequently arouses attraction, desires, dreams, or erotic or sexual fantasies of an individual[11]. Thus, sexual orientation as a category allows only three options: heterosexual (someone who feels preferably attraction towards the opposite sex), bisexual (people who report attraction in similar proportions, towards both people of same and opposite sex) and homosexual (person who is usually attracted to people of the same biological sex)[7,11].

Erotic identity is the most intimate or private component of sexual identity. Erotic identity is not necessarily manifested in evident sexual, specific and consistent behaviors. Researchers suggest that mainly biological, genetic or hormonal factors during critical periods of development account for the sexual orientation in adults[12,13]. However, the way each person expresses the intimate sexual orientation within a social and cultural context is more related to environmental elements, i.e. social, cultural, political, religious aspects and so on, in which people develop[7,8,14].

Socio-sexual identity. Socio-sexual identity points out the social group with which a person identifies best if sexual orientation is taken as the basis[15]. Socio-sexual identity implies lifestyle, cultural, and social connotations. In many contexts, it also has implications of political activism and militancy in defense of civil rights of non-heterosexual people[16]. It is often called «gay» non-heterosexual people, homosexual or bisexual women and men, who take on this lifestyle. And «straight» is called the usual and traditional style of heterosexual men and women. Of course, social factors affect the process of identification with a social group or class of people who show a particular behavior[17-19]. This affiliation or sympathy for this particular social group tends to strengthen self-esteem, even in minority social groups in which some gay men, lesbians, bisexuals, travesties, and transsexuals (GLBTT) may feel members[20].

Divergences. The construction of the sexual identity is a continuous process which covers all the vital cycle[9]. According to the different approaches, the adult population between 1% and 10% self-recognizes as

non-heterosexual, bisexual, or homosexual[21]. Men represent the main percentage of this group[11]. Likewise, an important percentage of adolescents and adults inform sexual activity or discordant sexual behavior with the erotic identity they report[18].

Commonly, adults are expected concordance or traditional congruence between biological sex, identity and gender role, and erotic identity. So, it is usual to find a man performing «male» behavior for the social and cultural context with which he is familiar and generating sexual desire exclusively for women, and, on the other hand, a woman performing a «female» behavior for the normal social environment and generating sexual desire only for men[7,8].

Undoubtedly, everyday life shows that there may be an important dissociation between the subjective identity and the objective observable behavior among people in different cultures around the world[22]. For example, in the Western world today it is very common that adult men who have sex with men do not wish to change sex, do not show a gender discordant behavior (typically female), and report erotic identity as heterosexual[1,3]. Given this situation, researchers introduced the concept of men who have sex with men (and women who have sex with women) in order to reduce the stigma against non-heterosexual people. It includes bisexual, gay and transgender men and people who self-identify as heterosexual and maintain sexual activity with men only to describe the behavior without including the social or cultural identity[23]. It is also possible to listen to a man self-considering being homosexual. However, he is not self-defined as gay in the sense of being a part or member of the social group GLBTT, because he does not share some behaviors or does not live in a particular sector of a city which is labeled «gay»[1,23].

It is necessary to keep in mind that most variations as a whole included in the context of sexual identity and the dimensions it covers, are not technically considered illness or mental disorders today. Nevertheless, it is necessary to remember that there are still some codes in both the International Classification of Diseases (ICD-10)[24] and the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR) as potential clinical diagnostics[25].

The ICD-10 in the category of sexual identity disorder (F64) retains the diagnosis of transexualism (F64.0), non-fetishistic transvestism (F64.1), and sexual identity disorder in childhood (F64.2). It classifies sexual maturation disorder (F66.0) and ego-dystonic sexual orientation (F66.1) into the category of psychological disorders and behavioral development and sexual orientation (F66)[24]. On the other hand, the DSM-IV-TR contains the category of gender identity disorders (302), and it must specify the gender identity disorder in children (302.6) and Gender Identity Disorder in adolescents or adults (302.85)[25].

Nevertheless, the fifth version of the Diagnostic and Statistical Manual of the American Psychiatric Association exclude the diagnosis of gender identity disorder in childhood (302.6) and, therefore, sexual identity disorder in adolescents or adults (302.85). The categorization as a mental disorder of gender discordant behaviors in children led to all kinds of treatment for these behaviors. None of these treatments significantly changed their normal behavior. In other words, they were completely unsucessful[26].

It is important to note that most of the children who met criteria for gender identity disorder in childhood presented in adulthood homosexual or bisexual sexual orientation, or what is still called gender identity disorder of adults (302.85) according to DSM-IV-TR, or its equivalent in transexualism (F64.0), non-fetishistic transvestism (F64.1) according to ICD-10[27-30].

PRACTICAL IMPLICATIONS

The confusion between the different components of sexual identity has important connotations, more in sexual health than in reproductive health, beyond the psychological implications in each person. For instance, it is accepted that homosexuality has existed since the appearance of first humans on the planet. Although the social connotations were and are different according to contexts, from the absolute refusal with the inclusion of the death penalty, to the recognition, in some countries, of similar civil rights to heterosexual persons[16,31-35].

The epidemiological and clinical research which explore the prevalence of homosexuality reported disparate frequencies, because of the way sexual orientation is asked[1,3]. Table 1 shows how the different studies explored the behavior and sexual orientation in participants[1]. Some of these questions focus more on the behavior presented than on desires or more suggestive erotic motivations of erotic identity[1]. It is certainly possible that a person feels

Table 1
Methods of assessing sexual identity in some investigations[1]

Main question	Answer options
Sexual behavior	***Answer options***
1. During your life, persons you have had sex with are:	I have never had sexual intercourse Men Women Both men and women
2. Last year, your sexual partners were:	Not apply Men Women Both men and women
Sexual orientation	
3. On this scale, how would you self-identify?	0: Exclusively heterosexual 1: Predominantly heterosexual, only incidentally homosexual 2: Predominantly heterosexual, sometimes homosexual 3: Equally heterosexual and homosexual 4: Predominantly homosexual, sometimes hetero sexual 5: Predominantly homosexual, only incidentally heterosexual 6: Exclusively homosexual
4. People have different sexual attractions. How would you describe your condition? You feel...	Only attracted to women Mostly attracted to women Equally attracted to men and women Mostly attracted to men Only attracted to men Not sure
Sexual identity	
5. What is your sexual identity or orientation? (Select only a response)	Heterosexual Lesbian, gay or homosexual Bisexual None I'd rather not say
6. Which of the following options best describes you?	Heterosexual (*Straight*) Gay or lesbian Bisexual Not sure

repeatedly and consistently erotic desire for same sex persons without having a sexual behavior which turns these desires into reality before, at the time, or in the future[1,11]. Similarly, a significant group of men and women inform

sexual relations with people of the same sex without considering themselves homosexuals, lesbians, or gays[11,23,36,37]. A significant number of studies in different countries reports that men who have sex with men are more often in sexual risk behaviors of contracting HIV infection[33,34,38-41]. In the same way, the population of men who have sex with men accounts for a significant portion of the spread through sexual route of HIV infection in women[42].

It must be remembered that the different dimensions of identity may present some variations over time[9,27,28]. However, the identity of sex and erotic identity are more resistant to change[29,30]. People with clear homosexual sexual orientation do not often engage in any homosexual behavior or relationships with people of the same sex at any time or during their whole lives[11,43,44]. Like-wise, people who consider themselves gay, lesbian or bisexual do not feel members or participants in the gay community as a social group[1]. Certainly, these aspects are very closed to the various nuances of sexual prejudice (biphobia, lesbofobia, homophobia and transphobia) which researchers may find in the general population[15,44]. Sexual prejudice has two negative impacts on public health. First, it is related to an increase risk of emotional disorders among non-heterosexual people. Some studies suggest that emotional disorders or requesting mental health professional services is more common in gay, lesbian, or bisexual people[45,46]. Up to now, it is appropriate to specify that studies show that these mental health problems are significantly more frequent in those homosexual or bisexual (women and men) who report a marked discomfort or dissatisfaction with his/her sexual orientation, or show high levels of internalized homophobia or sexual prejudice (non-heterosexual people who reject their non-heterosexual self-condition)[47]. Second, sexual prejudice not only limits the application of the screening test for HIV[48], but also it becomes a barrier to access medical treatment and services once HIV-positive is identified, due to social rejection and occasional discrimination which come from health personnel[49,50]. Third, sexual prejudice limits information about HIV seroconversion which has to be provided to heterosexual partners[51].

FUTURE DIRECTIONS

Future research attempting to investigate the frequency of homosexuality in different populations and contexts should direct the question to the wishes, dreams and sexual fantasies. Instead, it should measure sexual orientation, but not same-sex behaviors[1,3]. Sexual behaviors can be modified. Nevertheless, sexual wishes, dreams and fantasies are less subject to change or influence cultural and social context[4,11].

However, bias may persist. Homosexuality is a stigmatized condition in most cultures and societies[52-54]. Therefore, it is entirely possible a lower report of the condition; although, it can be investigated using anonymous questionnaires on paper or through Internet[55]. It is always necessary to balance the desirability of the expected response[56,57]. People can give fake answers in order to please, trick, or simply avoid a bad personal moment[55].

Undoubtedly, the purpose of the study should guide the choice of the aspect of sexual identity (sex identity, gender identity, sexual behavior or erotic identity) which will be researched[1,3,11,58,59]. It must ensure the validity and reliability of the particular sexual identity assessment aspect which will be tackled[60]. From a public health perspective, sexual behavior is more important than erotic identity in all matters related to the prevention and control of transmission of HIV-AIDS[1,3,59]. Obviously, researchers are more interested in safe sexual behaviors than wishes or fantasies before, during, or after sexual behaviors[1,3]. It is only enough to know the number of men who have sex with other men or women who have sex with other women without widely explore erotic identity[1,3,59].

However, if the interest is to explore the emotional aspects among non-heterosexual people researchers do necessarily need to include questions whose purpose is to know the sexual orientation and socio-sexual identity[3,59]. On the other hand, if the intention is to characterize best non-heterosexual persons, it is necessary to assume the great heterogeneity of the group. If sexual identity and its domains are reviewed in the form of categories, it is possible to foresee more than thirty sexual identities. Further, the number of possibilities is almost infinite if identities are measured as continuous variables or dimensions. This point suggests that non-heterosexual people represent a sufficiently heterogeneous population with subgroups with special characteristics. Therefore, future research should indicate the characteristics of the population in the most comprehensive manner and all aspects of sexual identity. It

should only generalize the results to groups with similar characteristics[60].

CONCLUSIONS

Sexual identity, as a whole, is a complex concept which builds itself throughout life and integrates the sex identity, the gender identity and the erotic identity. Biological elements are important to the sex identity. In the same way, cultural and social elements for gender identity, and biological elements, which interact with cultural and social aspects, for erotic identity. The lack of precision in the measurement of homosexuality in different populations is partly related to the confusion over these concepts. Future research should consider these definitions depending on the purpose of the study. They should also clarify many of the characteristics of global sexual identity of the population.

REFERENCES

1. Ridner SL, Topp R, Frost KL. Methodological issues in identifying sexuality for research. *Am J Ment Health.* 2007; *1*: *87*-90.
2. Savin-Williams RC. Who's gay? Does it matter? *Cur Dir Psychol Sci.* 2006; *15*: 40-4.
3. Organización Panamericana de la Salud-Organización Mundial de la Salud. *Promoción de la salud sexual. Recomendaciones para la acción*. Antigua: OPS/OMS; 2000.
4. Kaplan HI, Saddock BJ. *Sinopsis de psiquiatría*. 8ª ed. Madrid: Panamericana, Lippincot, Williams & Wilkins; 2000.
5. DiNapoli L, Capel B. SRY and the standoff in sex determination. *Mol Endocrinol.* 2008; *21*: 1-9.
6. Nef S, Parada LF. Hormones in male sexual development. *Genes Dev.* 2000; *14*: 3075-86.
7. Stein T. Homosexuality and homosexual behavior. *In:* Sadock BJ, Sadock VA. *Kaplan & Saddock comprehensive textbook of psychiatry*. 7th ed. Philadelphia: Lippincot, Williams & Wilkins; 2000. p. 1608-31.
8. Vasgas-Trujillo E. *Sexualidad... Mucho más que sexo*. Bogotá: Uniandes; 2007.
9. Blümel JE, Castelo-Branco C, Vallejo S. La sexualidad en las diferentes etapas de la vida. *En: Sexualidad humana. Una aproximación integral*. Madrid: Editorial Médica Panamericana; 2005. p. 55-63.
10. Lamas M. Usos, dificultades y posibilidades de la categoría género. *Pap Pob.*1999; *21:* 147-78.
11. Rubio-Aurioles E, Wylie K. Sexual orientation matters in sexual medicine. *J Sex Med.* 2008; *5:* 1521-33.
12. Campo A. Algunas consideraciones sobre los aspectos biológicos de la homosexualidad. *En:* Yepes LE, Téllez-Vargas JE, Alarcón R. *Avances*. Bogotá: Asociación Colombiana de Psiquiatría Biológica; 2003. p. 72-82.
13. Santtila P, Sandnabba NK, Harlaar N, Varjonen M, Alanko K, von der Pahlen B. Potential for homosexual response is prevalent and genetic. *Biol Psychol.* 2008; *77*: 102-5.
14. Cardoso FL. Cultural universals and differences in male homosexuality: The case of Brazilian fishing villaje. *Arch Sex Behav.* 2005; *34*: 103-9.
15. Ardila R. *Homosexualidad y psicología*. Bogotá: El Manual Moderno; 2002.
16. Fone B. *Homofobia. Una historia*. México: Océano; 2008.
17. Kertzner RM. The adult life course and homosexual identity in midlife gay men. *Annu Rev Sex Res.* 2001; *12*: 75-92.
18. Rosario M, Schrimshaw EW, Hunter J. Ethnic/racial differences in the coming-out process of lesbian, gay, and bisexual youths: a comparison of sexual identity development over time. *Cultur Divers Ethnic Minor Psychol.* 2004; *10*: 215-28.
19. Wilkerson JM, Ross MW, Brooks AK. Social constructions influencing sociosexual identity development of collegiate gay and bisexual men. *Sex Res Soc Pol.* 2009; *6*: 71-87.
20. Rowen CJ, Malcolm JP. Correlates of internalized homophobia and homosexual identity formation in a sample of gay men. *J Homosex.* 2002; *43*: 77-92.
21. Pruitt MW. A comparison of anti- and pro-gay organizations' estimates of the size of gay population. *J Homosex.* 2002; *42:* 21-9.
22. Pathela P, Hajat A, Schillinger J, Blank S, Sell R, Mostashari F. Discordance between sexual behavior and self-reported sexual identity: A populalation-based survey of New York City men. *Ann Intern Med*. 2006; *145*: 416-23.
23. Young RM, Meyer IH. The trouble with «MSM» and «WSW»: Erasure of the sexual-minority person in public health discourse. *Am J Public Health.* 2005; *95*: 1144-9.
24. Organización Mundial de la Salud. *Clasificación Internacional de las Enfermedades (CIE), 2007*. [fecha de acceso 15-07-2009]. Disponible en http://apps.who.int/classifications/apps/icd/icd10online
25. Asociación Psiquiátrica Americana. *Manual diagnóstico y estadístico de los trastornos mentales DSM IV-TR*. Barcelona: Masson; 2000.
26. Ault A, Brzuzy S. Removing gender identity disorder from Diagnostic and Statistical Manual of Mental Disorders: A call for action. *Soc Work.* 2009; *54*: 187-9.
27. Rosario M, Schrimshaw EW, Hunter J, Braun L. Sexual identity development among gay, lesbian, and bisexual youths: consistency and change over time. *J Sex Res.* 2006; *43:* 46-58.
28. Savin-Williams RC, Ream GL. Prevalence and stability of sexual orientation components during adolescence and young adulthood. *Arch Sex Behav.* 2007; *36*: 385-94.
29. Wallien MS, Cohen-Kettenis PT. Psychosexual outcome of gender-dysphoric children. *J Am Acad Child Adolesc Psychiatry.* 2008; *47*: 1413-23.
30. Drummond KD, Bradley SJ, Peterson-Badali M, Zucker KJ. A follow-up study of girls with gender identity disorder. *Dev Psychol.* 2008; *44*: 34-45.
31. Clark JL, Cáceres CF, Lescano AG, Konda KA, León SR, Jones FR, *et al.* Prevalence of same-sex sexual behavior and associated characteristics among low-income urban males in Peru. *PLoS One.* 2007; *2*: e778 (doi:10.1371/journal.pone. 0000778).

32. Mercer CH, Bailey JV, Johnson AM, Erens B, Wellings K. Women who report having sex with women: British national probability data on prevalence, sexual behaviors, and health outcomes. *Am J Public Health.* 2007; *97*: 1126-33.
33. Lau JTF, Wang M, Wong HN, Tsui HY, Jia M, Cheng F, *et al.* Prevalence of bisexual behaviors among men who have sex with men. *Sex Transm Dis.* 2008; *35*: 406-13.
34. Prestage G, Ferris J, Grierson J, Thorpe R, Zablotska I, Imrie J, *et al.* Homosexual men in Australia: population, distribution and HIV prevalence. *Sex Health.* 2008; *5*: 97-102.
35. Mendelson G. Homosexuality and psychiatric nosology. *Aust N Zealand J Psychiatry.* 2003; *37*: 678-83.
36. Wilson PA. A dynamic-ecological model of identity formation and conflict among bisexually-behaving African-American men. *Arch Sex Behav.* 2008; *37*: 794-809.
37. Cáceres CF, Konda K, Segura ER, Lyerla R. Epidemiology of male same-sex behaviour and associated sexual health indicators in low- and middle-income countries: 2003-2007 estimates. *Sex Transm Infect.* 2008; *84* (Suppl. 1): i49-i56.
38. Baral S, Sifakis F, Cleghorn F, Beyrer C. Elevated risk for HIV infection among men who have sex with men in low- and middle-income countries 2000-2006: A systematic review. *Plos Med. 2007; 4 (12):* e339 doi:10.1371/journal.pmed.0040339.
39. Cáceres CF. HIV among gay and other men who have sex with men in Latin America and the Caribbean: a hidden epidemic? *AIDS.* 2002; *16* (Suppl. 3): S23-33.
40. Finlinson HA, Colón HM, Robles RR, Soto M. Sexual identity formation and AIDS prevention: an exploratory study of non-gay-identified Puerto Rican MSM from working class neighborhoods. *AIDS Behav.* 2006; *10*: 531-9.
41. Posada IC, Gómez-Arias R. Mercado y riesgo: escenario de transmisión del VIH entre hombres que tienen sexo con otros hombres. Medellín, 1993-2006. *Colomb Med.* 2007*; 38*: 222-36.
42. Gorbach PM, Murphy R, Weiss RE, Hucks-Ortiz C, Shoptaw S. Bridging sexual boundaries: Men who have sex with men and women in a street-based sample in Los Angeles. *J Urban Health.* 2009; *86* (Suppl. 1): 63-76.
43. Taylor B. 'Coming out' as a life transition: homosexual identity formation and its implications for health care practice. *J Adv Nurs.* 1999; *30*: 520-5.
44. Floyd FJ, Bakeman R. Coming-out across the life course: implications of age and historical context. *Arch Sex Behav.* 2006; *35*: 287-96.
45. King M, Semlyen J, Tai SS, Killaspy H, Osborn D, Popelyuk D, *et al.* A systematic review of mental disorder, suicide, and deliberate self harm in lesbian, gay and bisexual people. *BMC Psychiatry.* 2008; *8*: 70 (doi:10.1186/1471-244X-8-70).
46. Grella CE, Greenwell L, May VM, Cochran SD. Influence of gender, sexual orientation, and need on treatment utilization for substance use and mental disorder: findings from the California Quality of Life Survey. *BMC Psychiatry.* 2009; *9*: 52 (doi: 10.1186/1471-244X-9-52).
47. Cochran SD, Mays VM. Burden of psychiatric morbidity among lesbian, gay, and bisexual individuals in the California Quality of Life Survey. *J Abnorm Psychol.* 2009; *118*: 647-58.
48. Lane T, Mogale T, Struthers H, McIntyre J, Kegeles SM. «They see you as a different thing»: experiences of men who have sex with men with healthcare workers in South African township communities. *Sex Trans Infect.* 2008; *84*: 430-3.
49. Smith DM, Mathews WC. Physician' attitudes toward homosexuality and HIV: Survey of a California Medical Society -Revisited (PATHH-II). *J Homosex.* 2007; *52*: 1-9.
50. Campo-Arias A, Herazo E. Homofobia en estudiantes de medicina: una revisión de los diez últimos años. *Medunab.* 2008; *11*: 120-3.
51. White RC, Carr R. Homosexuality and HIV/AIDS stigma in Jamaica. *Culture Health Sex.* 2005; *7*: 347-59.
52. Toro-Alfonso J, Varas-Díaz N. Los otros: prejuicio y distancia social hacia hombres gays y lesbianas en una muestra de estudiantes de nivel universitario. *Int J Clin Health Psychol.* 2004; *4*: 537-51.
53. Haslam N, Levi SR. Essentialist beliefs about homosexuality: Structure and implications for prejudice. *Pers Soc Psychol Bull.* 2006; *32*: 471-85.
54. Cantor EW. *Homofobia y convivencia en la escuela*. Bogotá: Universidad Pedagógica Nacional; 2008.
55. Tourangeau R, Yan T. Sensitive questions in surveys. *Psychol Bull.* 2007; *133*: 859-83.
56. Holtgraves T. Social desirability and self-reports: testing models of socially desirable responding. *Pers Soc Psychol Bull.* 2004; *30*: 161-72.
57. Hopwood CJ, Flato CG, Ambwani S, Garland BH, Morey LC. A comparison of Latino and Anglo socially desirable responding. *J Clin Psychol.* 2009; *65*: 769-80.
58. Mayer KH, Bradford JB, Makadon HJ, Stall R, Goldhammer H, Landers S. Sexual and gender minority health: what we know and what needs to be done. *Am J Public Health.* 2008; *98*: 989-95.
59. Michaels S, Lhomond B. Conceptualization and measurement of homosexuality in sex surveys: a critical review. *Cad Saude Publica.* 2006: *22*: 1365-74.
60. Roberts P, Priest H, Traynor M. Reliability and validity in research. *Nurs Stand.* 2006; *20*: 41-5.