D.あなたのメンタルヘルスについてお聞きします

回答中にしんどくなる場合には、無理に回答いただかなくて結構です。

また、当院の臨床心理士（カウンセラー）が対応させていただきますので、医療相談室にお申し出ください。

**過去 30 日間にどれくらいの頻度で次のことがありましたか？「1. 全くない」～「5.いつも」のうち、当てはまるものを一つ選んで✓してください。**

**077　神経過敏に感じましたか。**

☐ 1.　全くない　☐ 2.　少しだけ　☐ 3.　ときどき　☐ 4.　たいてい　☐ 5.　いつも

**078　絶望的だと感じましたか。**

☐ 1.　全くない　☐ 2.　少しだけ　☐ 3.　ときどき　☐ 4.　たいてい　☐ 5.　いつも

**079　そわそわ、落ち着かなく感じましたか。**

☐ 1.　全くない　☐ 2.　少しだけ　☐ 3.　ときどき　☐ 4.　たいてい　☐ 5.　いつも

**080　気分が沈み込んで、何が起こっても気が晴れないように感じましたか。**

☐ 1.　全くない　☐ 2.　少しだけ　☐ 3.　ときどき　☐ 4.　たいてい　☐ 5.　いつも

**081　何をするのも骨折りだと感じましたか。**

☐ 1.　全くない　☐ 2.　少しだけ　☐ 3.　ときどき　☐ 4.　たいてい　☐ 5.　いつも

**082　自分は価値のない人間だと感じましたか。**

☐ 1.　全くない　☐ 2.　少しだけ　☐ 3.　ときどき　☐ 4.　たいてい　☐ 5.　いつも

**あなたが、あなた自身のことをどのように思っているのかについてお聞きします。次の特徴のおのおのについて、あなた自身がどの程度当てはまるかをお答え下さい。他からどう見られているかではなく、あなたが、あなた自身をどのように思っているかを、ありのままにお答えください。**

**083　少なくとも人並みには、価値のある人間である。**

☐ 1.あてはまらない　☐ 2.ややあてはまらない　☐ 3.どちらともいえない　☐ 4.ややあてはまる　☐ 5.あてはまる

**084　色々な良い素質をもっている。**

☐ 1.あてはまらない　☐ 2.ややあてはまらない　☐ 3.どちらともいえない　☐ 4.ややあてはまる　☐ 5.あてはまる

**085　敗北者だと思うことがよくある。**

☐ 1.あてはまらない　☐ 2.ややあてはまらない　☐ 3.どちらともいえない　☐ 4.ややあてはまる　☐ 5.あてはまる

**086　物事を人並みには、うまくやれる。**

☐ 1.あてはまらない　☐ 2.ややあてはまらない　☐ 3.どちらともいえない　☐ 4.ややあてはまる　☐ 5.あてはまる

**087　自分には、自慢できるところがあまりない。**

☐ 1.あてはまらない　☐ 2.ややあてはまらない　☐ 3.どちらともいえない　☐ 4.ややあてはまる　☐ 5.あてはまる

**088　自分に対して肯定的である。**

☐ 1.あてはまらない　☐ 2.ややあてはまらない　☐ 3.どちらともいえない　☐ 4.ややあてはまる　☐ 5.あてはまる

**089　だいたいにおいて、自分に満足している。**

☐ 1.あてはまらない　☐ 2.ややあてはまらない　☐ 3.どちらともいえない　☐ 4.ややあてはまる　☐ 5.あてはまる

**090　もっと自分自身を尊敬できるようになりたい。**

☐ 1.あてはまらない　☐ 2.ややあてはまらない　☐ 3.どちらともいえない　☐ 4.ややあてはまる　☐ 5.あてはまる

**091　自分は全くだめな人間だと思うことがある。**

☐ 1.あてはまらない　☐ 2.ややあてはまらない　☐ 3.どちらともいえない　☐ 4.ややあてはまる　☐ 5.あてはまる

**092　何かにつけて、自分は役に立たない人間だと思う。**

☐ 1.あてはまらない　☐ 2.ややあてはまらない　☐ 3.どちらともいえない　☐ 4.ややあてはまる　☐ 5.あてはまる

**093 HIV 感染がわかるまでに、気分の落ち込み・不安・不眠などのメンタルの症状で、次の場所を利用したことがありますか？（当てはまる項目全てに✓）**

☐ 1. 心理カウンセリング　☐ 2. 心療内科　☐ 3. 精神科　☐ 4. いずれもない

**094 HIV 感染がわかるまでに、気分の落ち込み・不安・不眠などの症状を改善・治療するためにメンタル系の治療薬を服用しましたか？（当てはまる項目全てに✓）**

☐ 1. 抗うつ薬　☐ 2. 抗不安薬　☐ 3. 睡眠薬
☐ 4. 睡眠導入薬　☐ 5. その他のメンタル系治療薬　☐ 6. いずれもない

**095 HIV 感染がわかるまでに、次のドラッグ（違法・合法問わず）を使ったことがありますか？（当てはまる項目全てに✓）**

☐ 1. 大麻　☐ 2. 5-MeO-DIPT（ゴメオ）　☐ 3. MDMA（エクスタシー）
☐ 4. 覚せい剤　☐ 5. ラッシュ　☐ 6. ガス（エアーダスター）
☐ 7. 脱法ドラッグ ハーブ系（植物片）　☐ 8. 脱法ドラッグ パウダー系（粉末状）
☐ 9. 脱法ドラッグ リキッド系（液体状）　☐ 10. 勃起改善薬・漢方精力剤
☐ 11. いずれかを、注射器・注射針で使用した　☐ 12. いずれもない

**096 HIV 感染がわかるまでに、セックスをしている時（あるいはセックスを始める２時間前まで）に次のドラッグ（違法・合法問わず）を使ったことがありますか？（当てはまる項目全てに✓）**

☐ 1. 大麻　☐ 2. 5-MeO-DIPT（ゴメオ）　☐ 3. MDMA（エクスタシー）
☐ 4. 覚せい剤　☐ 5. ラッシュ　☐ 6. ガス（エアーダスター）
☐ 7. 脱法ドラッグ ハーブ系（植物片）　☐ 8. 脱法ドラッグ パウダー系（粉末状）
☐ 9. 脱法ドラッグ リキッド系（液体状）　☐ 10. 勃起改善薬・漢方精力剤
☐ 11. いずれかを、注射器・注射針で使用した　☐ 12. いずれもない

**097 HIV 感染がわかってから今日までに、次のドラッグ（違法・合法問わず）を使ったことがありますか？（当てはまる項目全てに✓）**

☐ 1. 大麻　☐ 2. 5-MeO-DIPT（ゴメオ）　☐ 3. MDMA（エクスタシー）
☐ 4. 覚せい剤　☐ 5. ラッシュ　☐ 6. ガス（エアーダスター）
☐ 7. 脱法ドラッグ ハーブ系（植物片）　☐ 8. 脱法ドラッグ パウダー系（粉末状）
☐ 9. 脱法ドラッグ リキッド系（液体状）　☐ 10. 勃起改善薬・漢方精力剤
☐ 11. いずれかを、注射器・注射針で使用した　☐ 12. いずれもない

**098 HIV 感染がわかってから今日までに、セックスをしている時（あるいはセックスを始める２時間前まで）に次のドラッグ（違法・合法問わず）を使ったことがありますか？（当てはまる項目全てに✓）**

☐ 1. 大麻　☐ 2. 5-MeO-DIPT（ゴメオ）　☐ 3. MDMA（エクスタシー）
☐ 4. 覚せい剤　☐ 5. ラッシュ　☐ 6. ガス（エアーダスター）
☐ 7. 脱法ドラッグ ハーブ系（植物片）　☐ 8. 脱法ドラッグ パウダー系（粉末状）
☐ 9. 脱法ドラッグ リキッド系（液体状）　☐ 10. 勃起改善薬・漢方精力剤
☐ 11. いずれかを、注射器・注射針で使用した　☐ 12. いずれもない

**099 過去 30 日間の飲酒について、お聞きします。あなたは一席（飲み会なら約 2 時間）で、大量の酒（合計 5 杯以上）を飲むようなことが何回くらいありましたか？**

☐ 1. 5 回以上あった　☐ 2. 3～4 回あった　☐ 3. 1～2 回あった
☐ 4. この１ヶ月間は、一度もなかった

## E.あなたの生活へのHIVの影響についてお聞きします

**100　HIVに感染していることを知ったのは、いつ頃ですか？**

（　　）年（　　）月

**101　HIVに感染していることを、どなたかに打ち明けていますか（カミングアウト）？**

□ 1.　はい　　□ 2.いいえ・・・・・問104へ

**102　カミングアウトしている方にお尋ねします。何人にカミングアウトしましたか**

（　　）人

**103　次の人たちにあなたがHIV陽性であることを知らせていますか**

□ 1.　親　　□ 2.　きょうだい

□ 3.　夫・妻　　□ 4.　パートナー

□ 5.　元の、夫・妻・パートナー　　□ 6.　子ども

□ 7.　その他の親戚　　□ 8.　面識のある、ＨＩＶ陽性者

□ 9.　面識のある、その他知人　　□ 10.　ネット上など面識のない、ＨＩＶ陽性者

□ 11.　ネット上など面識のない、その他知人　　□ 12.　職場の同僚・上司など

□ 13.　その他の関係の人

**104　現在、抗HIV薬を服薬していますか？**

□ 1.　服薬している　　□ 2.　以前は服薬していたけれど、今はしていない　　□ 3.　服薬していない

**105　HIV陽性者のグループや、陽性者支援団体（ボランティア団体）などのサービスを、これまでに利用したことがありますか？**

□ 1.　ある　　□ 2.　ない

**106　HIV陽性の友人はいますか？**

□ 1.　いる　　□ 2.　いない

**107　HIV陽性のパートナー（お付き合いしている男性）はいますか？**

□ 1.　いる　　□ 2.　いない

**病気や障害をもって生活する上で、ふだん制約を受けたり、自分で制約していると感じることがありますか？**

**108　生活習慣（食事・喫煙・飲酒など）**

□ 1.　かなり制約あり　□ 2.　少し制約あり　□ 3.　ほとんど制約はない　□ 4.　まったく制約はない

**109　外出や行動の範囲**

□ 1.　かなり制約あり　□ 2.　少し制約あり　□ 3.　ほとんど制約はない　□ 4.　まったく制約はない

**110　現在の働き方や学校生活**

□ 1.　かなり制約あり　□ 2.　少し制約あり　□ 3.　ほとんど制約はない　□ 4.　まったく制約はない

**111　将来の働き方や進路、職業選択**

□ 1.　かなり制約あり　□ 2.　少し制約あり　□ 3.　ほとんど制約はない　□ 4.　まったく制約はない

**112　家族や親戚との関係**

□ 1.　かなり制約あり　□ 2.　少し制約あり　□ 3.　ほとんど制約はない　□ 4.　まったく制約はない

**113　友人との関係**

□ 1.　かなり制約あり　□ 2.　少し制約あり　□ 3.　ほとんど制約はない　□ 4.　まったく制約はない

**114　恋人との関係や出会い**

□ 1.　かなり制約あり　□ 2.　少し制約あり　□ 3.　ほとんど制約はない　□ 4.　まったく制約はない

**115　セックス**

□ 1.　かなり制約あり　□ 2.　少し制約あり　□ 3.　ほとんど制約はない　□ 4.　まったく制約はない

**次の事柄について、病院のスタッフ（感染症内科医師、精神科医師、看護師、薬剤師、臨床心理士（カウンセラー）、ソーシャルワーカーなど）には相談ができていますか？？**

**116　この頃の体調について**

□ 1.　十分できている　□ 2.　ある程度できている　□ 3.　あまりできていない
□ 4.　まったくできていない　□ 5.　相談の必要がない　□ 6.　相談するつもりがない

**117　この頃の精神状態について**

□ 1.　十分できている　□ 2.　ある程度できている　□ 3.　あまりできていない
□ 4.　まったくできていない　□ 5.　相談の必要がない　□ 6.　相談するつもりがない

**118　内服継続について**

□ 1.　十分できている　□ 2.　ある程度できている　□ 3.　あまりできていない
□ 4.　まったくできていない　□ 5.　相談の必要がない　□ 6.　相談するつもりがない

**119　仕事や学業について**

□ 1.　十分できている　□ 2.　ある程度できている　□ 3.　あまりできていない
□ 4.　まったくできていない　□ 5.　相談の必要がない　□ 6.　相談するつもりがない

**120　家族や親戚との関係について**

□ 1.　十分できている　□ 2.　ある程度できている　□ 3.　あまりできていない
□ 4.　まったくできていない　□ 5.　相談の必要がない　□ 6.　相談するつもりがない

**121　日常生活について**

□ 1.　十分できている　□ 2.　ある程度できている　□ 3.　あまりできていない
□ 4.　まったくできていない　□ 5.　相談の必要がない　□ 6.　相談するつもりがない

**122　恋愛について**

□ 1.　十分できている　□ 2.　ある程度できている　□ 3.　あまりできていない
□ 4.　まったくできていない　□ 5.　相談の必要がない　□ 6.　相談するつもりがない

**123　セックスについて**

□ 1.　十分できている　□ 2.　ある程度できている　□ 3.　あまりできていない
□ 4.　まったくできていない　□ 5.　相談の必要がない　□ 6.　相談するつもりがない

**124　何らかの物質（アルコール、覚せい剤、5meo、ラッシュ、脱法ドラッグ、勃起薬、精力剤等）の乱用・依存について**

□ 1.　十分できている　□ 2.　ある程度できている　□ 3.　あまりできていない
□ 4.　まったくできていない　□ 5.　相談の必要がない　□ 6.　相談するつもりがない

**HIV やセクシュアリティについての暮らしにくさや、HIV の医療やサポート、社会に対してのご意見があれば、お聞かせください。**

**今後、半年後、さらに 1 年後に同様の調査を予定しておりますが、ご協力いただけますでしょうか**

□ 1. 協力する　　□ 2. 協力しない

## ご協力ありがとうございました

ご記入いただいたアンケートは、一緒にお渡しした封筒に入れて封をしてください。

QUO カード（５００円分）をお渡しいたしますので、医療相談室までお持ちください。

# Ⅲ．研究成果の刊行に関する一覧表

研究成果の刊行に関する一覧表

雑誌

| 発表者氏名 | 論文タイトル名 | 発表誌名 | 巻号 | ページ | 出版年 |
|---|---|---|---|---|---|
| Hidaka Y, Operario D, Tsuji H, Takenaka M, Kimura H, Kamakura M, Ichikawa S | Prevalence of sexual victimization and correlates of forced sex in Japanese men who have sex with men | Plos One | 9(5) | e95675.-doi:10.1371/journal.pone.0095675 | 2014 |
| Matsutaka Y, Uchino T, Kihana N, Hidaka Y | Knowledge about sexual orientation among student counselors: a survey in Japan | International Journal of Psychology and Counseling | 6(6) | 74-83 | 2014 |
| 古谷野淳子、松高由佳、桑野真澄、早津正博、西川歩美、星野慎二、後藤大輔、町登志雄、日高庸晴 | 「その瞬間」に届く予防介入の試み　—MSM 対象の PCBC(個別認知行動面接)の検討— | 日本エイズ学会誌 | 16(2) | 92-100 | 2014 |

PLOS | ONE



# Prevalence of Sexual Victimization and Correlates of Forced Sex in Japanese Men Who Have Sex with Men

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## Abstract

Studies of men who have sex with men (MSM) in diverse geographic and cultural contexts have identified health challenges affecting this population. MSM might be particularly vulnerable to sexual victimization and forced sex. The aim of this research study was to examine prevalence of sexual victimization and correlates of forced sex among Japanese MSM. We recruited a sample of 5,731 Japanese MSM who completed an internet-administered survey. Participants reported on history of different types of sexual victimization, unprotected anal sex, other health risk behaviors, exposure to gay-related teasing and bullying, depression, and suicidality. Over one-fifth of the sample (21.4%) reported experiencing at least one form of sexual victimization, and 8.7% reported a history of forced sex. MSM who had ever experienced forced sex were significantly more likely to report experiencing psychological risks (depression OR = 1.55, 95% CI = 1.28–1.89; attempted suicide OR = 2.25, 95% CI = 1.81–2.81; other forms of bullying OR = 1.38, 95% CI = 1.13–1.68) and other behavioral risks (unprotected anal sex OR = 1.56, 95% CI = 1.29–1.90; sex venue attendance OR = 1.27, 95% CI = 1.04–1.54; methamphetamine use OR = 1.57, 95% CI = 1.05–1.36), compared to MSM who had not experienced forced sex. Efforts to develop holistic and integrated health services for Japanese MSM are warranted, particularly related to psychosocial determinants of HIV prevention. However, due to cultural factors that emphasize familial and social relations and that stigmatize same-sex behavior, Japanese MSM might experience challenges to seeking social support and health services. Interventions must be provided in safe and non-judgmental settings where Japanese MSM feel comfortable disclosing their health and social support needs.

**Citation:** Hidaka Y, Operario D, Tsuji H, Takenaka M, Kimura H, et al. (2014) Prevalence of Sexual Victimization and Correlates of Forced Sex in Japanese Men Who Have Sex with Men. PLoS ONE 9(5): e95675. doi:10.1371/journal.pone.0095675

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## Introduction

Globally, there have been an increasing number of studies examining health and psychosocial risk factors affecting men who have sex with men (MSM) [1]. Much of this attention has focused on disproportionate HIV prevalence among MSM across international settings [2–4]. However, additional research has also shown that MSM in diverse geographic regions may also experience psychological and social vulnerabilities – such as discrimination and interpersonal violence – which can contribute to further health challenges in this population [5–9]. A nascent literature has examined health outcomes in Japanese MSM. Some of the documented health challenges among Japanese MSM include HIV risk [10], drug use [11], and suicidal ideation and attempted suicide [12]. Studies to date suggest a need for enhanced understanding into the risk factors for health problems in Japanese MSM.

Previous research has suggested that adverse behavioral and psychosocial health indicators in Japanese MSM might be due, in part, to exposure to social stressors [13]. For example, stigma, homophobic abuse, and victimization are forms of social stress reported in MSM samples in Japan [12,13]. Experience of homophobic stigma has been shown to be related to psychological problems and sexual risk behaviors in MSM populations in other parts of Asia [14–17]. This finding is consistent with minority stress theory [18], which postulates that exposure to negative social or interpersonal events can compromise the psychological well-being of sexual minority individuals and thereby contribute to higher prevalence of mental and physical health problems in MSM.

Sexual victimization is an extreme form of social and interpersonal stress that MSM may experience, and can contribute to further psychological and behavioral health risks among those who have been victimized. Sexual victimization can be defined as any form of involuntary sexual interaction or contact with another person, which can occur in childhood as well as in adulthood [19]. Studies have shown that MSM with a history of childhood sexual victimization show greater sexual risk behavior in adulthood and have higher prevalence of HIV infection compared with their MSM peers who have not experienced sexual victimization [20]. There are few studies that have examined adult sexual victimi-

zation experiences among men. This may be due, in part, to underreporting of adult sexual victimization, stigma about discussion of sexual victimization in adult men, and myths about men's vulnerability to sexual victimization [21]. However, a review of research on sexual victimization in adult men found that MSM were more likely to report experiences of adult sexual victimization compared with heterosexual men [21]. Forced sex is a specific type of sexual victimization that has extremely adverse physical and mental health consequences among male victims. Individuals with a history of forced sex can have long-term risk for HIV, trauma, and maladaptive health risk behaviors [22].

To date, there are no known studies exploring sexual victimization, including forced sex, among Japanese MSM and its potential role in affecting the health and psychological well-being in this population. To enhance understandings of the health of Japanese MSM, the aims of this paper are to explore (i) the prevalence of different types of sexual victimization in a large population sample, and (ii) associations between history of forced sex and other psychosocial and behavioral risk factors. Because this is an understudied topic, findings from this analysis can provide insight for future research and potentially guide interventions to address the health and well-being of MSM in Japan who have a history of sexual victimization and forced sex.

## Method

### Recruitment

The internet was used to recruit a diverse sample of Japanese MSM for a study of health behaviors and well-being. The internet has been argued to be an acceptable method for collecting large, heterogeneous samples of hard-to-reach populations [23,24]. Internet technology can be helpful in reaching gay, bisexual, and questioning men who are less comfortable attending homosexual-themed venues, such as bars and nightclubs. Data collection through the internet can also increase the opportunity for participants to respond anonymously by avoiding face-to-face contact [11,13], which might be a barrier to participation due to MSM stigma in Japanese culture. Informational announcements about the study were placed on internet websites catering to Japanese MSM audiences. In addition to posting banners on gay-related websites, recruitment strategies included: flyers distributed in gay venues, announcements posted in gay organizational newsletters as well as in gay magazines, and announcements posted at social network websites catering to gay men. We designed the internet banners and informational flyers in a manner that would draw the attention of MSM, e.g., using physically attractive male models. However, we designed a range of recruitment media (e.g., information-only announcements without pictures or using gay-relevant slogans and symbols) to minimize bias associated with recruiting men solely based on their response to sexually suggestive images. Announcements provided information about the research project and eligibility for participation. Potential participants were directed to an internet site to learn more about the study. Participant inclusion criteria included: 1) being a Japanese male who has ever had sex with men; 2) having internet access; 3) having Japanese written language fluency.

### Procedure

Participants who met inclusion criteria entered a secured internet website to complete the anonymous online survey. The website first presented informed consent information. If participants understood the purposes of the study and agreed to the terms of participation, they clicked an "Agree" button, and they then accessed the questionnaire. All items and response options were presented in Japanese language, and participants' responses were immediately saved in a firewall-protected database. To minimize the chances that participants would complete the survey multiple times, we examined internet protocol addresses and internet providers encoded within the data and, if encoded information appeared similar, checked the demographic data for redundant information. Internet protocol addresses were deleted before conducting analysis. Using a procedure validated previously in an internet study of MSM in Japan, we asked participants to define two terms that were identified through earlier formative research as well-known colloquial expressions in the Japanese MSM/gay community (which translated into English would mean "gay men/gay society" and "heterosexual") [11,13]. Data from men who were unable to define the terms were excluded from analysis. Data were collected between August 11 and November 30, 2005. The study protocol was approved by the Ethics Committee of Nagoya City University School of Nursing.

In total, 6,260 participants attempted to complete the questionnaire, 196 people were excluded due to missing data, 140 were excluded because of data duplication or because they could not define the slang terms, 73 were excluded because they were not males, and 120 were excluded because they did not live in Japan.

### Measures

Participants reported demographic characteristics, including age, highest educational level, and sexual orientation (gay, bisexual, heterosexual, undecided, unsure and other). Participants were asked whether they had ever experienced a range of sexual interactions *against their will*, including the following: being undressed by another person, target of verbal sexual abuse, forced to kiss another person, sexually touched by another person, forced to touch the genitals of another person, forced to engage in vaginal sex with a female, forced to engage in oral sex (with a male or female), forced to engage in anal sex with a male, and any other form of unwanted sexual interaction. Participants also described whether they had ever been harassed or bullied in school by others due to their sexuality, and whether they had close gay/bisexual friends to whom they could confide in and close heterosexual friends to whom they could confide in. They completed the Japanese version of the Center for Epidemiologic Studies Depression Scale (CES-D); participants were categorized as being moderately depressed based on a score greater than 16 [25]. Participants also reported whether they had ever attempted suicide. Finally, participants reported their HIV status, frequency of condom use when engaging in anal sex, and recent methamphetamine use.

### Data analysis

Statistical analysis was conducted using SPSS v.21. First, we described the prevalence of different types of sexual victimization, sociodemographic variables, and self-reported psychosocial and behavioral health variables. Second, we examined correlates of forced sex, using chi-square tests to assess bivariate associations and multivariable logistic regression to identify independent associations controlling for other co-variates. Multivariable regression analysis was based on procedures described in Hosmer & Lemeshow [26], in which we entered into the regression model any variable that had a moderate bivariate association with forced sex at $p<.25$. Adjusted odds ratios (ORs) and 95% confidence intervals (95% CIs) were reported.

**Table 1.** Participant characteristics and associations with history of forced sex in a sample of Japanese MSM (n = 5,731).

| | | Total | | Lifetime experience of forced sex | | |
|---|---|---|---|---|---|---|
| | | n | % | n | % | *p-value* |
| Overall | | 5,731 | | 500 | 8.7 | |
| Age group | 12–19 | 371 | 6.5 | 36 | 9.7 | 0.002 |
| | 20–29 | 2,432 | 42.4 | 253 | 10.4 | |
| | 30–39 | 2,037 | 35.5 | 149 | 7.3 | |
| | 40–49 | 652 | 11.4 | 48 | 7.4 | |
| | 50+ | 205 | 3.5 | 11 | 5.4 | |
| | Missing | 34 | 0.6 | 3 | 8.8 | |
| Sexual orientation | Gay | 3,868 | 67.5 | 337 | 8.7 | 0.25 |
| | Bisexual | 1,484 | 25.9 | 138 | 9.3 | |
| | Other | 379 | 6.6 | 25 | 6.6 | |
| Educational level | No university degree | 2,496 | 43.6 | 236 | 9.5 | 0.089 |
| | University degree | 3,235 | 56.4 | 264 | 8.2 | |
| Ever been teased verbally with words such as "homosexual, faggot, fag" | No | 2,605 | 45.5 | 193 | 7.4 | 0.001 |
| | Yes | 3,126 | 54.5 | 307 | 9.8 | |
| Ever been bullied other than verbal teasing | No | 3,146 | 54.9 | 220 | 7 | <0.001 |
| | Yes | 2,585 | 45.1 | 280 | 10.8 | |
| Depression in past week | Not depressed | 3,510 | 61.2 | 235 | 6.7 | <0.001 |
| | Depressed | 2,221 | 38.8 | 265 | 11.9 | |
| Ever attempted suicide | No | 4,926 | 86 | 358 | 7.3 | <0.001 |
| | Yes | 805 | 14 | 142 | 17.6 | |
| Went to any sex venues in 6 months | No | 2,714 | 47.4 | 205 | 7.6 | 0.003 |
| | Yes | 3,017 | 52.6 | 295 | 9.8 | |
| Have close gay/bisexual friends | No | 2,000 | 34.9 | 156 | 7.8 | 0.069 |
| | Yes | 3,731 | 65.1 | 344 | 9.2 | |
| Have close heterosexual friends | No | 2,370 | 4.4 | 175 | 7.4 | 0.003 |
| | Yes | 3,361 | 58.6 | 325 | 9.7 | |
| HIV status | Negative | 5,425 | 94.7 | 457 | 8.4 | 0.002 |
| | Positive | 306 | 5.3 | 43 | 14.1 | |
| Ever used methamphetamine | No | 5,520 | 96.3 | 467 | 8.5 | 0.001 |
| | Yes | 211 | 3.7 | 33 | 15.6 | |
| Unprotected anal intercourse in 6 months | No | 2,941 | 51.3 | 198 | 6.7 | <0.001 |
| | Yes | 2,790 | 48.7 | 302 | 10.8 | |

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## Results

Data from a total of 5,731 respondents are included in this analysis (Table 1). The mean age was 30.8 years (SD = 8.9, range = 12–82), with 6.5% between 12 and 19 years old, 42.4% between 20 and 29 years old, 35.5% between 30 and 39 years old, 11.4% between 40 and 49 years old, and 3.6% over the age of 50 (n = 34 did not report their age). Over half (56.4%) of the sample had completed a University degree. Over two-thirds (67.5%) identified themselves as gay and 25.9% identified as bisexual. Over half (54.5%) had been verbally teased with words such as "homosexual, faggot, fag" and 45.1% had experienced other forms of bullying. The majority of participants reported having close gay/bisexual male friends (65.1%) as well as close heterosexual friends (58.6%). Over one-third (38.8%) reported moderate levels of depression (CES-D >16), and 14.0% had ever attempted suicide. Overall, 5.3% identified as HIV-positive, 48.7% reported having unprotected anal sex in the past six months, 52.6% had visited a sex venue in the past six months, and 3.7% had ever used methamphetamines.

Prevalence of sexual victimization experiences are reported in Table 2. Overall, 21.4% of the sample reported experiencing any of the types of sexual victimization assessed in this survey. The most common forms of sexual victimization included unwanted sexual touching (16.7%), being undressed (10.5%), being forced to kiss someone (9.6%) and being forced to touch someone's genitals (8.8%). A total of 500 participants (8.7% overall; 40.8% of those who reported any sexual victimization) reported ever experiencing any forced sex. Overall, 6.5% experienced forced anal sex, 5.9% experienced forced oral sex, and 2.0% experienced forced vaginal sex.

Bivariate correlates of a history of forced sex are listed in Table 1. Forced sex was associated with younger age, experience

**Table 2.** Prevalence of different forms of lifetime sexual victimization in a sample of Japanese MSM (n = 5,731).

| Forms of sexual victimization | n | % |
|---|---|---|
| Undressed | 600 | 10.5 |
| Abused with obscene words | 392 | 6.8 |
| Forced kiss | 553 | 9.6 |
| Touched | 957 | 16.7 |
| Forced to touch genital part | 507 | 8.8 |
| Forced vaginal sex | 113 | 2 |
| Forced oral sex | 338 | 5.9 |
| Forced anal sex | 372 | 6.5 |
| Other | 215 | 38 |
| Any forced sex (vaginal, oral, anal) | 500 | 8.7 |
| Any forms of sexual victimization (any of above) | 1,224 | 21.4 |

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of verbal teasing due to being gay, experience of other forms of bullying due to being gay, depression, history of attempted suicide, having close heterosexual friends, HIV-positive status, unprotected anal sex, vising a sex venue, and history of methamphetamine use ($p<.01$).

Variables that were independently associated with a history of forced sex are shown in Table 3. Based on multivariable regression analysis, forced sex was shown to be significantly associated with depression (OR = 1.55, 95% CI = 1.28–1.89), history of attempted suicide (OR = 2.25, 95% CI = 1.81–2.81), experience of bullying (OR = 1.38, 95% CI = 1.13–1.68), having close heterosexual friends (OR = 1.26, 95% CI = 1.03–1.55), visiting a sex venue (OR = 1.27, 95% CI = 1.04–1.54), having unprotected anal sex (OR = 1.56, 95% CI = 1.29–1.90), HIV positive status (OR = 1.57, 95% CI = 1.10–2.24), and ever using methamphetamines (OR = 1.57, 95% CI = 1.05–2.36).

## Discussion

Over one-fifth (21.4%) of this large sample of MSM in Japan reported experiencing at least one form of sexual victimization as assessed in this study, and 8.7% reported a history of forced sex. MSM who had ever experienced forced sex were significantly more likely to report experiencing psychological risks (i.e., depression, attempted suicide, other forms of bullying) and other behavioral risks (unprotected anal sex, sex venue attendance, methamphetamine use) compared with their peers who did not experience forced sex. These cross-sectional findings suggest that assessing for sexual victimization and addressing the consequences of forced sex might be an important component of clinical screenings or public health interventions related to HIV prevention and mental health services for MSM in Japan.

Findings here are consistent with studies from other settings which indicate that HIV and other health disparities affecting MSM must be understood in the context of psychosocial stressors and contextual factors that determine health risk behaviors among members of this population [18]. Consequently, integrated and holistic approaches to health care for MSM may be warranted – particularly approaches that consider history of adverse psychological and behavioral co-factors that need intervention [1].

Capacity to provide holistic health services to MSM in Japan, however, is currently limited. Among Japanese MSM, 80% have not disclosed their sexual orientation to parents, thus these men may experience difficulty seeking help from their family members. Although poor mental health status such as depression was apparent in this population, experience of accessing mental health services was low [27]. These findings suggest that MSM may experience difficulty seeking support from parents as well as in medical care settings, potentially due to the fear of prejudice and discrimination. Professionals such as mental care providers, nurses, public health professionals providing HIV counseling and testing, and clinical psychologists would benefit from improved training to understand about the needs of this population, in order to provide adequate professional services and support to MSM. Japanese MSM would benefit from resources that identify health service providers or health settings that are friendly and competent in working with sexual minority patients and populations. Currently, there are no known publically available resources to help MSM in Japan identify health services in general, especially mental health care. Development of referral networks, brochures, and websites with information about appropriate and confidential services for MSM is warranted.

There are notable strengths to this study. This is the first known study of the prevalence of sexual victimization and correlates of forced sex in Japanese MSM. Use of the internet allowed us to recruit a large sample of MSM, and suggests the utility of internet and social media for outreach and recruitment to MSM in Japan, a population that might otherwise be hard to reach. Findings expose a need for appropriate and confidential health services for MSM, and suggest the role of sexual victimization as a determinant of behavioral health and psychosocial problems in this population.

Limitations to this study must be considered. First, the study used a cross-sectional design which prevents interpretation of causality or temporal order among variables. Second, although this is a large MSM sample, participants were recruited using non-representative sampling methods. Because we did not use targeted recruitment efforts to achieve a sociodemographically representative sample, findings might not be generalizable to MSM who do not access gay-themed internet or periodical content or men who felt uncomfortable completing an online survey. Third, self-report measures might have been affected by social desirability or recall biases. Fourth, because this was an exploratory study, and the first of its kind in Japan, we did not have access to culturally validated measures of sexual victimization and other risk behaviors in Japanese MSM. Although measures of sexual risk and other health behaviors in this survey have also been reported in previous studies of Japanese MSM [11,13], future research must better assess the

**Table 3.** Multivariable regression to identify independent correlates of forced sex in a sample of Japanese MSM (n = 5,731).

| | | Lifetime experience of forced sex | | |
|---|---|---|---|---|
| | | AOR | 95% CI | *p-value* |
| Age group | 12–19 | ref. | | |
| | 20–29 | 1.03 | (0.70–1.51) | 0.877 |
| | 30–39 | 0.71 | (0.48–1.07) | 0.102 |
| | 40–49 | 0.8 | (0.50–1.28) | 0.354 |
| | 50+ | 0.68 | (0.33–1.38) | 0.282 |
| | Missing | 0.99 | (0.28–3.50) | 0.983 |
| Sexual orientation | Gay | ref. | | |
| | Bisexual | 1.24 | (1.00–1.55) | 0.055 |
| | Other | 0.81 | (0.53–1.25) | 0.343 |
| Educational level | No university degree | ref. | | |
| | University degree | 1.02 | (0.84–1.23) | 0.865 |
| Ever been teased verbally with words such as "homosexual, faggot, fag" | No | ref. | | |
| | Yes | 1.13 | (0.93–1.39) | 0.229 |
| Ever been bullied other than verbal teasing | No | ref. | | |
| | Yes | 1.38 | (1.13–1.68) | 0.002 |
| Depression in past week | Not depressed | ref. | | |
| | Depressed | 1.55 | (1.28–1.89) | <.001 |
| Ever attempted suicide | No | ref. | | |
| | Yes | 2.25 | (1.81–2.81) | <.001 |
| Went to any sex venues in 6 months | No | ref. | | |
| | Yes | 1.27 | (1.04–1.54) | 0.017 |
| Have close gay/bisexual friends | No | ref. | | |
| | Yes | 1.12 | (0.90–1.38) | 0.307 |
| Have close heterosexual friends | No | ref. | | |
| | Yes | 1.26 | (1.03–1.55) | 0.027 |
| HIV status | Negative | ref. | | |
| | Positive | 1.57 | (1.10–2.24) | 0.014 |
| Ever used methamphetamine | No | ref. | | |
| | Yes | 1.57 | (1.05–2.36) | 0.029 |
| Unprotected anal intercourse in 6 months | No | ref. | | |
| | Yes | 1.56 | (1.29–1.90) | <.001 |

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psychometric properties and cultural sensitivity of sexual behavior and victimization measures for use with this population. Fifth, most measures of sexual behavior, victimization, and other risk behaviors in this survey assessed lifetime experience, resulting in limited inferences about temporal windows which might affect health risk.

## Conclusion

In summary, this study highlights the role of prior sexual victimization in contributing to the psychological and behavioral risks of MSM in Japan. Findings reported here correspond with a substantial literature (mostly conducted in the West) on the associations of sexual victimization – including childhood sexual victimization as well as adult victimization – on psychological adjustment and future sexual risk outcomes. Efforts to address these issues among Japanese MSM are warranted. Such efforts must be mindful of cultural and social factors that might challenge provision of holistic services to Japanese MSM, and which might also present barriers to access of health service and disclosure of problems among Japanese MSM.

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## Author Contributions

Conceived and designed the experiments: YH. Performed the experiments: YH HK MK SI. Analyzed the data: YH DO HT MT. Contributed reagents/materials/analysis tools: YH. Wrote the paper: YH DO HT MT HK MK SI.

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*Full Length Research Paper*

# Knowledge about sexual orientation among student counselors: A survey in Japan

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**This study targeted clinical psychologists engaged in student counseling in Japan and investigated their level of clinical and psychological knowledge about sexual orientation. This study also assessed the relationship between sexuality education and self-learning experiences and knowledge. A questionnaire which included 13 items assessing basic and clinical knowledge about sexuality, experiences regarding education on homosexuality, experiences of self-learning, and experiences with sexual minorities, was anonymously administered to 484 student counselors trained as clinical psychologists. The total number of valid responses was 321 (66.3%). About 80% of the participants correctly answered the items under the category "basic knowledge about homosexuality," although their clinical knowledge and knowledge regarding differences in sexual orientation and gender identity were limited. 277 had attended graduate school and the proportion of participants who had received education on homosexuality during graduate clinical psychology training was 14.8%. Education on homosexuality received during graduate clinical psychology training and that received via self-learning had little associations with the level of knowledge about sexuality. These results suggest that the level of clinical knowledge of Japanese student counselors was insufficient for appropriate clinical practice. Issues surrounding sexuality education and clinical psychologist training, as well as the limitations of this study, are discussed.**

**Key words:** knowledge about sexual orientation, counselor education, student counselor.

## INTRODUCTION

A person's sexuality comprises the following three components: biological sex, gender identity and sexual orientation. Gender identity refers to the awareness of one's own gender, whether a person considers themselves male or female; sexual orientation indicates which gender is the object of a person's romantic feelings or sexual desires. Sexual minority is a generic term for people whose sexual orientation, identity or practices differ from

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**Abbreviations:** Interpretative Phenomenological Analysis – **IPA;** General Practitioner – **GP**

that of the majority of the society.

For instance, the minorities in terms of gender identity are people whose gender identities are inconsistent with their biological sex are called transgender (including gender identity disorder), and the minorities in terms of sexual orientation are homosexuals and bisexuals.

Mental health problems have been reported among sexual minorities, such as depression, anxiety, drug and alcohol use, and high rates of suicide attempts (Cochran et al., 2003; Stall et al., 2003; Wichstrom and Hegna, 2003, Hidaka et al., 2006). These problems have been linked to the psychological stress of social stigmatization (Meyer, 1995; Ghindia and Kola 1996; Mays and Cochran, 2001; King et al., 2008; Halkitis, 2012) in Japan and elsewhere.

Homosexuals in Japanese society, which generally assumes everyone to be heterosexual, experience conditions of chronic stress and often have conflicting feelings about their own sexual orientation as a consequence of discrimination and prejudice within society. In a study of more than 1,000 Japanese homosexual men, bisexual men, and men questioning their sexual orientation, 71% had a high level of anxiety, and 13% had a high level of depression. Moreover, 83% experienced bullying in school, and 15% had attempted suicide. Another study of a large sample of Japanese urban youth showed that non-heterosexual men were six times more likely to have attempted suicide than heterosexual men (Hidaka et al., 2008). These results indicate that one of the risk factors for suicide among young Japanese men is being homosexual or bisexual. A study on adolescent milestone events for Japanese gay men reported that the average age of first thoughts about suicide was 16.4 years, the average age of clearly identifying as gay was 17.0 years, and the average age of the first suicide attempt due to sexual orientation was 20.2 years.

In Japanese society, which is dominated by heterosexuality and negative attitudes toward homosexuality, the difficulties that homosexual and bisexual men experience in their early development can lead to a decline in self-esteem. Difficulties such as bullying by others and suicide attempts affect self-esteem and may contribute to increased risks for both suicide and human immunodeficiency virus (HIV) contraction (Hidaka and Operario, 2009). No similar study on lesbians in Japan has been conducted to date. Mental health conditions, suicide ideation, suicide attempts, and HIV infection among 10 to 20 year-old lesbian, gay, or bisexual (LGB) individuals are receiving much attention in other countries, as well as Japan (Russell and Joyner, 2001; Bontempo and D'Augelli, 2002; Berlan et al., 2010). Since sexuality is a major issue between puberty and adolescence, difficulties coping with stigmas against homosexuality might increase during this period (Rotheram-Borus and Fernandez, 1995). It is, therefore, important to enhance psychological support systems that address adolescent sexuality. However, only a few opportunities exist for discussing LGB clinical psychology in Japan. Although treatment guidelines for gender identity disorder were created by the Japanese society of psychiatry and neurology, only a few professional psychologists have initiated organized discussions on LGB psychology. Moreover, the understanding of sexual orientation may vary among specialists (Sasaki et al., 2012).

In a study that reported on Japanese counselors' clinical biases toward homosexual clients, it was found that counselors showed more negative reactions to homosexual clients than to heterosexual clients, due to factors related to homophobia (Shinagawa, 2006). Although counselors generally intend to treat homosexual clients without bias, they may have an underlying evasive attitude toward such clients (Shinagawa and Kodama, 2005). There is a distinct need for education and training of Japanese clinical psychologists to improve their ability to provide psychological support for LGB clients (Kasai and Okahashi, 2011). However, no study has been conducted to assess the extent to which Japanese clinical psychologists receive sexuality education during their professional training, and what specific knowledge they acquire.

One organization offering counseling to Japanese youth provides on-campus services for university students. According to the Japan student services organization (2011), 87.9% of Japanese universities, including national, prefectural, municipal and private universities, have more than one student counselor with professional c//redentials. Such professionals, trained as clinical psychologists or medical doctors, play a support role aimed at helping students with both school-related problems and various mental health and interpersonal relationship issues.

The present study targeted clinical psychologists engaged in student counseling in Japan and investigated their level of clinical knowledge about sexual orientation. We also assessed the relationship between sexuality education and self-learning experiences and knowledge. We hypothesized that counselors who received no/little education regarding homosexual topics would have limited knowledge. Basic data from this study may clarify issues pertaining to sexuality education and training of clinical psychologists.

## METHODOLOGY

### Participants and procedures

This study conducted between October and November, 2012, as a part of the acquired immune deficiency syndrome (AIDS) research projects sponsored by the ministry of health, Labour and welfare in Japan. The study targeted certified clinical psychologists or "university counselors" who were certified by the Japanese association of student counseling, who were engaged in student counseling at four-year universities in the Chu-Shikoku and Kinki

areas. Each campus within the target area on the university list available from the website of the ministry of education, culture, sports, science and Technology of Japan was either called or e-mailed. The presence and number of student counselors who would be eligible to participate was then assessed. Among the universities that confirmed the presence of counselors, questionnaires were sent to all student counseling institutions that agreed to receive them. Anonymously self-administered questionnaires in Japanese were sent to institutions and each study participant returned the questionnaire individually by mail. Participants received stationery as an incentive. Informed consent was requested from all participants on the first page of the questionnaire. The study protocol was approved by the ethics board of Hiroshima Bunkyo women's university.

### Measures

***Knowledge about sexuality:*** Thirteen items for the questionnaire were originally created, with response options including: "I think so," "I don't think so," or "I don't know." The questionnaire included the following four categories:

1) "Basic knowledge about homosexuality," which contained three items, such as "homosexuality is a mental illness," "Many homosexual (gay) men use feminine language and gestures," and "Many homosexual (lesbian) women use masculine language and gestures;"
2) "Knowledge about sexual orientation," which contained four items, such as "one can decide whether to be homosexual or heterosexual," "Homosexuality can be changed to heterosexuality by treatment and effort.," "I don't know the difference between gender identity disorder and homosexuality," and "Sexual orientation is a term used to describe homosexuality, heterosexuality, and bisexuality;"
3) "Clinical knowledge about homosexuality," which contained four items, such as "One of the main factors involved in becoming homosexual is confusion of gender identity (identifying oneself as a man or woman)," "One of the main factors behind homosexuality is parent-child relationships in childhood," "it is appropriate to psychologically intervene to change homosexuality to heterosexuality for a client wanting to treat homosexuality," and "Current society is likely to worsen the mental health of homosexuals;" and
4) "clinical knowledge about gender identity disorder," which contained two items, such as "One of the main factors behind gender identity disorder is parent-child relationships in childhood," "it is appropriate to support a client who is diagnosed with gender identity disorder to be able to live as the gender s/he wants." These categories and items were created based on the findings of a pilot study targeting Japanese counselors. Clinically appropriate answers (correct answers) for each item were decided according to the report of the American psychological association (APA, 2009) .

**Education on homosexuality and self-learning experiences:** Participants were instructed to choose an answer from response alternatives (multiple answers possible) about whether they received education on homosexuality in undergraduate or graduate clinical psychologist training programs. They were also asked about self-learning experiences, outside of undergraduate and graduate education, regarding the clinical psychology of homosexuality. If they reported self-learning experiences, they were asked to select what self-learning source they used from a list of multiple alternatives. If they did not have such experiences, they were asked for explanations, which they could select from response alternatives.

**Experiences of having sexual minority clients:** Participants were asked about the number of student clients they had counseled who were homosexual men, bisexual men, homosexual women, bisexual women, transgender people and others.

**Screening item:** Participants were asked whether they were certified clinical psychologists or "university counselors" who were certified by the Japanese association of student counseling. If the res-pondents did not have either of certificates, they were excluded from participants.

**Demographics:** Participants were asked about their gender, age, years of clinical experience and working conditions. In addition, they were asked whether they had received clinical psychology training overseas, and whether they had close homosexual, bisexual, or transgender friends.

## RESULTS

Questionnaires were sent to 484 certified clinical psychologists and "university counselors", including 128 counselors from 54 of the 66 total universities (81.8%) in the Chu-Shikoku area, and 356 counselors from 120 of the 153 total universities (78.4%) in the Kinki area. As a result, the total number of valid responses was 321 (66.3%). Table 1 summarizes the demographic characteristics of participants. The mean age of counselors was 43.1 years (SD=11.0), and the mean number of years of clinical experience was 13.8 (SD=9.4). Of the 321 participants, 253 (78.8%) were female and 68 (21.2%) were male. Sixty-six (20.6%) participants had close friends or acquaintances who were homosexual, 42 (13.1%) had transgender friends and acquaintances, and 230 (71.7%) had neither. During student counseling, 69 (21.6%) had counseled homosexual males, 20 (6.3%) had counseled bisexual males, 61 (19.1%) had counseled homosexual females, 35 (10.9%) had counseled bisexual females, and 90 (28.2%) had counseled transgender individuals.

Table 2 summarizes the results of the 13 questionnaire items regarding knowledge about sexuality. The percentage of correct answers for the category "basic knowledge about homosexuality" (items 1-3) was about 80%. However, the percentage of correct answers for the category "knowledge about sexual orientation" was much lower. Among all study participants, 39.7% knew the meaning of the term "sexual orientation" (item 7), only about half correctly responded to the prompt "one can decide whether to be homosexual or heterosexual" (item 4), and 76.6% correctly responded to the prompt "it is appropriate to support a client who is diagnosed with gender identity disorder to be able to live as the gender s/he wants" (item 11), which was an item in the category "clinical knowledge about gender identity disorder."

Conversely, only 22.3% correctly responded to the prompt "it is appropriate to psychologically intervene to change homosexuality to heterosexuality for a client wanting to treat homosexuality" (item 12), which was an item in the category "clinical knowledge about homosexuality." Moreover, there were a number of

**Table 1.** Demographic characteristics of participants

| | N | % |
|---|---|---|
| **Age group** | | |
| 20 to 29 | 30 | 9.3 |
| 30 to 39 | 115 | 35.8 |
| 40 to 49 | 78 | 24.3 |
| 50 to 59 | 58 | 18.1 |
| 60+ | 34 | 10.6 |
| No answer | 6 | 1.9 |
| Total | 321 | 100.0 |
| **Gender** | | |
| Female | 253 | 78.8 |
| Male | 68 | 21.2 |
| Other | 0 | .0 |
| Total | 321 | 100.0 |
| **Academic degree**[a] | | |
| Bachelor's only | 44 | 13.7 |
| Bachelor's & Master's | 277 | 86.3 |
| Total | 321 | 100.0 |
| **Years of clinical experience** | | |
| 1 to 5 | 65 | 20.2 |
| 6 to10 | 95 | 29.6 |
| 11 to15 | 48 | 15.0 |
| 16 to 20 | 42 | 13.1 |
| 21 to 25 | 20 | 6.2 |
| 26 to 30 | 28 | 8.7 |
| 31 to 35 | 11 | 3.4 |
| 36 to 40 | 6 | 1.9 |
| No answer | 6 | 1.9 |
| Total | 321 | 100.0 |
| **Certifications (multiple answers possible)** | | |
| Certified clinical psychologist | 311 | 96.9 |
| University counselor | 33 | 10.3 |
| **Working condition** | | |
| Full-time | 93 | 29.0 |
| Part-time | 226 | 70.4 |
| No answer | 2 | .6 |
| Total | 321 | 100.0 |
| **Having close friends or acquaintances belonging to a sexual minority (multiple answers possible)** | | |
| Homosexual/Bisexual | 66 | 20.6 |
| Transgender | 42 | 13.1 |
| None | 230 | 71.7 |

**Table 1.** Contd.

| | | |
|---|---|---|
| **Having clients belonging to a sexual minority (multiple answers possible)** | | |
| Homosexual men | 69 | 21.5 |
| Bisexual men | 20 | 6.2 |
| Homosexual women | 61 | 19.0 |
| Bisexual women | 35 | 10.9 |
| Transgender people | 90 | 28.0 |
| Other | 6 | 1.9 |
| None | 146 | 45.5 |
| **Receiving clinical psychology training overseas** | | |
| Yes | 15 | 4.7 |
| No | 302 | 94.1 |
| No answer | 4 | 1.2 |

Note. [a] In Japan, a Bachelor's degree is a prerequisite for becoming a certified clinical psychologist or "university counselor."

participants who did not realize that they had confused issues of sexual orientation and gender identity. Of the participants, 78.8% responded "I don't think so" to the prompt "I don't know the difference between gender identity disorder and homosexuality" (item 6), and 37.8% correctly responded to the prompt "one of the factors involved in becoming homosexual is confusion about gender identity (identifying oneself as man or woman)" (item 9). A $\chi^2$ test on each of the 13 items revealed differences in the response rate for all items except item 9 (Table 2).

Forty-four (13.7%) participants reported having received education on homosexuality in undergraduate training. Of all participants, 277 had attended graduate school and 41 (14.8%) of those reported receiving education on homosexuality during their graduate clinical psychology training. The percentage of those who received education on homosexuality was low in both undergraduate and graduate schools. Table 3 shows the topics learned by participants who had received education on homosexuality. In both undergraduate and graduate schools, less than 30% of participants had received education on "counseling skills," and some responded that they "can't remember" what they learned (27.3% undergraduate and 17.1% graduate programs).

When asked about self-learning outside of undergraduate and graduate education (Table 4), 216 (67.3%) reported having learned on their own. The majority of participants (122; 56.5%) reported having "read books on homosexuality," while 101 (46.8%) reported having "browsed websites about homosexuality." Participants who did not have self-learning experiences about the clinical psychology of homosexuality were asked for an explanation. The majority (67.6%) answered that they had "never been aware of homosexuality."

As professional training for counselors in Japan is usually covered in graduate schools, this study focused on homosexuality education received during graduate school and via self-learning and assessed their associations with knowledge on sexuality. Table 5 is a cross tabulation for the percentage of correct answers to questions on sexuality and homosexuality education received during graduate school and via self-learning. A two-way (graduate education × self-learning) analysis of variance using the arcsine transformation method was applied to correct the answer rate on each cell. The effect of homosexuality education during graduate school was significant for only one item ("8. One of the main factors behind gender identity disorder is parent-child relationships in childhood."), indicating that the percentage of correct answers was significantly higher among participants who received homosexuality education in graduate schools ($p < .05$). The effect of homosexuality education via self-learning was also significant for only one item ("7. Sexual orientation is a term used to describe homosexuality, heterosexuality, and bisexuality."), indicating that the percentage of correct answers was significantly higher among self-learning participants ($p < .01$). The interaction effect was not significant for all items.

Other factors may be associated with knowledge on sexuality such as having close friends or acquaintances belonging to a sexual minority, having clients belonging to a sexual minority, education received during undergraduate school, and years of clinical experience. Therefore, we assessed the associations of these factors with the participants' actual level of knowledge of sexuality. We first calculated a total score using 13 items, with correct answers receiving one point and incorrect answers receiving zero points ($M$=7.74, $SD$=2.54). With this score as the base variable, we conducted a multiple

**Table 2.** Knowledge about sexuality (Total).

| | I think so | | I don't think so | | I don't know | | |
|---|---|---|---|---|---|---|---|
| | n | % | N | % | n | % | χ2(2) |
| **Basic knowledge about homosexuality** | | | | | | | |
| 1. Homosexuality is a mental illness. (*n*=320) | 13 | 4.1 | *253* | *79.1* | 54 | 16.9 | 309.01*** |
| 2. Many homosexual (gay) men use feminine language and gestures. (*n*=321) | 28 | 8.7 | *274* | *85.4* | 19 | 5.9 | 391.35*** |
| 3. Many homosexual (lesbian) women use masculine language and gestures. (*n*=321) | 12 | 3.7 | *287* | *89.4* | 22 | 6.9 | 454.67*** |
| **Knowledge about sexual orientation** | | | | | | | |
| 4. One can decide whether to be homosexual or heterosexual. | 101 | 31.6 | *151* | *47.2* | 68 | 21.3 | 32.74*** |
| 5. Homosexuality can be changed to heterosexuality by treatment and effort. (*n*=321) | 9 | 2.8 | *205* | *63.9* | 107 | 33.3 | 179.51*** |
| 6. I don't know the difference between gender identity disorder and homosexuality. (*n*=321) | 40 | 12.5 | *253* | *78.8* | 28 | 8.7 | 299.50*** |
| 7. Sexual orientation is a term used to describe homosexuality, heterosexuality, and bisexuality. (*n*=320) | *127* | *39.7* | 100 | 31.3 | 93 | 29.1 | 6.04* |
| **Clinical knowledge about homosexuality** | | | | | | | |
| 9. One of the main factors involved in becoming homosexual is confusion of gender identity (identifying oneself as a man or woman). (*n*=320) | 101 | 31.6 | *121* | *37.8* | 98 | 30.6 | 2.93 |
| 10. One of the main factors behind homosexuality is parent-child relationships in childhood. (*n*=320) | 66 | 20.6 | *126* | *39.4* | 128 | 40.0 | 23.28*** |
| 12. It is appropriate to psychologically intervene to change homosexuality to heterosexuality for a client wanting to treat homosexuality. (*n*=319) | 65 | 20.4 | *71* | *22.3* | 183 | 57.4 | 83.09*** |
| 13. Current society is likely to worsen the mental health of homosexuals. (*n*=320) | *203* | *63.4* | 40 | 12.5 | 77 | 24.1 | 136.92*** |
| **Clinical knowledge about gender identity disorder** | | | | | | | |
| 8. One of the main factors behind gender identity disorder is parent-child relationships in childhood. (*n*=321) | 41 | 12.8 | *175* | *54.5* | 105 | 32.7 | 83.96*** |
| 11. It is appropriate to support a client who is diagnosed with gender identity disorder to be able to live as the gender s/he wants. (*n*=321) | *246* | *76.6* | 12 | 3.7 | 63 | 19.6 | 283.01*** |

Note. Italic font indicates the correct answer for each prompt. *p<0.05. ***p<0.001.

linear regression analysis (forced entry) with the following six factors as explanatory variables: undergraduate education on sexuality, graduate education on sexuality, self-learning on sexuality, experiences with homosexual/bisexual clients, having homosexual/bisexual friends and acquaintances, and years of professional experience as a counselor.

Except years of professional experience, each explanatory variable was entered as a dummy variable with "yes" as one and "no" as zero. Years of professional experience was entered as a dummy variable with the group with low number of years of experience as zero and that with high number of years of experience as one. The low group consisted of participants with less than 14 years of professional experience and the high group consisted of participants with 14 or more years of professional experience, based on the average value of 13.8 years. Only experiences through self-learning had a significant positive standard partial regression coefficient with the knowledge score (Table 6).

**Table 3.** Education on homosexuality

| | n | % |
|---|---|---|
| **Contents of undergraduate education (n=44, multiple answers possible)** | | |
| Definition of homosexuality | 29 | 65.9 |
| Distress of homosexuals | 19 | 43.2 |
| Counseling skills | 5 | 11.4 |
| Can't remember | 12 | 27.3 |
| Other | 1 | 2.3 |
| **Contents of graduate education (n=41, multiple answers possible)** | | |
| Definition of homosexuality | 27 | 61.4 |
| Distress of homosexuals | 23 | 56.1 |
| Counseling skills | 12 | 29.3 |
| Can't remember | 7 | 17.1 |
| Other | 2 | 4.9 |

**Table 4.** Self-learning experiences about homosexuality

| | n | % |
|---|---|---|
| **Yes: self-learning tools (n=216, multiple answers possible)** | | |
| Training seminar (student counseling[a]) | 27 | 12.5 |
| Training seminar (school counseling[b]) | 9 | 4.2 |
| Training seminar (HIV) | 27 | 12.5 |
| Training seminar (other) | 66 | 30.6 |
| Conference presentation | 38 | 17.6 |
| Book | 122 | 56.5 |
| Academic paper | 73 | 33.8 |
| Internet | 101 | 46.8 |
| Other | 20 | 9.3 |
| **No: explanation (n=105, multiple answers possible)** | | |
| Never seen information | 23 | 21.9 |
| Never been aware of it | 71 | 67.6 |
| No need since it is not a disability | 12 | 11.4 |
| Won't encounter a homosexual | 19 | 18.1 |
| Feel uncomfortable about homosexual issues | 2 | 1.9 |
| Feel uncomfortable about sexual issues | 5 | 4.8 |
| Other | 13 | 12.4 |

Note. [a] Student counseling refers to counseling for university students, [b] School counseling refers to counseling for high school and younger students

## DISCUSSION

In this study, associations were found between knowledge about sexuality among Japanese student counselors and past education received. Although about 80% of the participants answered correctly for the category "basic knowledge about homosexuality," their clinical knowledge and understanding of gender identity and differences in sexual orientation were limited.

We found that Japanese clinical psychologists rarely received formal education on homosexuality during the course of their professional training. It appeared instead that most clinical psychologists relied on self-learning. Prior studies in Western countries have indicated