

# Sexual Orientation and Mental Health among Undergraduates of 10 Universities in Guangzhou, China

Yuan Yan, Haihong Liu, Shuiyuan Xiao

## Abstract

**Citation:** Yuan Yan, Haihong Liu, Shuiyuan Xiao Sexual Orientation and Mental Health among Undergraduates of 10 Universities in Guangzhou, China. **protocols.io**

dx.doi.org/10.17504/protocols.io.pcrdiv6

**Published:** 16 Apr 2018

## Protocol

A stratified random sampling design was used in this study.

### Step 1.

Firstly, we obtained the number of undergraduates of each university and the percentage of 121,181 undergraduates of the all 10 universities.

### Step 2.

Secondly, the target sample size was set as 10,000, and the percentages were used to calculate each university's sample size.

### Step 3.

Thirdly, randomized sampling was performed at class-level (about 30 students in a class) for each university.

### Step 4.

Finally, the final sample of 9071 university students was obtained.

### Step 5.

A self-administered questionnaire was given to 9,071 (7.5%) of 121,181 undergraduates across all 10 universities in HEMC in the fall semester of 2015 in Guangzhou, China.

### Step 6.

A total of 8,320 (91.7% of 9,071) students filled in the questionnaires and 8,182 of them responded to the question on sexual orientation, yielding a response rate of 90.2% and a refusal rate of 9.8%.

### Step 7.

Informed consent was given orally by participants at the beginning of the survey outside of school hours. The consent document was read out and any questions on the survey's purpose, content, confidentiality, participant's right, benefit and risk were answered immediately and discussed.

### Step 8.

There were no incentives to join the survey and participants were able quit at any time without any risk. Participation was completely voluntary and all personal information was kept strictly confidential for the purpose of the study. The consent procedure and the study were approved by the Ethics Committee, Xiangya School of Public Health, Central South University.

### Step 9.

Sexual orientation was measured using a single item on a 5-point scale with the instruction, "Please

circle a number on the line scale which best describes your sexual orientation, 1 indicates exclusively heterosexual, 5 indicates exclusively homosexual.”

#### **Step 10.**

Statistical analysis Firstly, we described the demographic characteristics of the total sample by self-reported sexual orientation among undergraduate students in Guangzhou, China. Secondly, Chi-square tests were used to determine the association between the demographics and sexual orientation. Thirdly, after the assumption of proportional odds was tested by using Test of Parallel Lines ( $p > 0.05$ ), multivariable ordinal regression analysis was used for examining the association between demographic variables and self-reported sexual orientation. The results are reported as odds ratios (OR) with 95% confidence interval (CI).

#### **Step 11.**