Data Article

Survey data of COVID-19-related knowledge, attitude, and practices among Indonesian undergraduate students

Muhammad Saefi\textsuperscript{a}, Ahmad Fauzi\textsuperscript{b,\ast}, Evi Kristiana\textsuperscript{c}, Widi Cahya Adi\textsuperscript{d}, M. Muchson\textsuperscript{a}, M. Eval Setiawan\textsuperscript{e}, Novita Nurul Islami\textsuperscript{f}, Dian Eka Aprilia Fitria Ningrum\textsuperscript{g}, M. Alifudin Ikhsan\textsuperscript{h}, Mavindra Ramadhani\textsuperscript{i}

\textsuperscript{a} Faculty of Mathematics and Natural Sciences, Universitas Negeri Malang, Indonesia
\textsuperscript{b} Faculty of Teacher Training and Education, Universitas Muhammadiyah Malang, Indonesia
\textsuperscript{c} Faculty of Teacher Training and Education, Universitas Islam Jember, Indonesia
\textsuperscript{d} Faculty of Science and Technology, Universitas Islam Negeri Walisongo Semarang, Indonesia
\textsuperscript{e} Faculty of Tarbiyah and Teacher Training, Institut Agama Islam Negeri Kerinci, Indonesia
\textsuperscript{f} Faculty of Tarbiyah and Teacher Training, Universitas Islam Negeri Maulana Malik Ibrahim Malang, Indonesia
\textsuperscript{g} Faculty of Social Sciences, Universitas Negeri Malang, Indonesia
\textsuperscript{h} Faculty of Industrial and Systems Engineering, Institut Teknologi Sepuluh Nopember Surabaya, Indonesia

\textbf{A B S T R A C T}

The dataset presented in this paper is an examination of COVID-19-related knowledge, attitude, and practice among Indonesian undergraduate students. The data were collected during the first month of college or university closure due to COVID-19 through a survey distributed via an online questionnaire, assessing sociodemographic information (6 items), knowledge (18 items), attitude (6 items), and practice (12 items), from 27\textsuperscript{th} April and 2\textsuperscript{nd} May 2020, gathering a total of 6,249 responses. A combination of purposive and snowball techniques helped to select the respondents via WhatsApp from more than ten universities in Indonesia. The survey data were analyzed using descriptive and inferential statistics. The data will assist in preventing and curbing the spread.

\textsuperscript{\ast} Corresponding author(s).

\textit{E-mail address:} ahmad_fauzi@umm.ac.id (A. Fauzi).
of COVID-19 in the university and can assist with planning for educational interventions for students’ awareness.

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### Specifications Table

| Subject                              | Public health          |
|--------------------------------------|------------------------|
| Specific subject area                | Health psychology, Social psychology |
| Type of data                         | Primary data, Tables   |
| How data were acquired               | Data was gathered using an online survey platform (google forms). The questionnaire is provided as a supplementary file |
| Data format                          | Raw, Analyzed, Filtered (descriptive and inferential statistics) |
| Parameters for data collection       | The survey data was obtained from 6,249 respondents of Indonesian undergraduate students with internet access. Only students who have department and faculty approval can access the survey. |
| Description of data collection       | The data was conducted through an online questionnaire, which was delivered to undergraduate students in Indonesia using the combination of purposive and snowball techniques helped to select the respondents via Whatsapp. |
| Data source location                 | Region: Asia Country: Indonesia |
| Data accessibility                   | Dataset is uploaded on Mendeley Repository Name: Mendeley Direct URL to data: https://data.mendeley.com/datasets/scgh3swptb/draft?a=aaea2402-bddd-45dc-80c1-a5e70f68b4b9 |

### Value of the data

- The data are important because this is the first survey that involved thousands of participants. So far, this survey involved the largest number of participants that explore knowledge, attitude, and practice about COVID-19 among Indonesian undergraduate students.
- The data will be useful for researchers who want to compare with similar studies on COVID-19 related knowledge, attitude, and practice from other countries around the world, especially among undergraduate students or contributing to meta-analysis in the future.
- The data will be valuable to researchers who want examine relationship between sociodemographics, knowledge, attitude, and practice of COVID-19 among undergraduate students.
- The details of the analyzed data are beneficial to enhancing institutional leaders’ and policymakers’s awareness of the level of students’ knowledge, attitude, and practice, so institution may better prepared for preventing and curbing the spread of COVID-19 in their environment and assist with planning for educational interventions for students’ awareness.

### 1. Data description

The data set provides an insightful information based on survey data on knowledge, attitude, and practice among Indonesian undergraduate students about COVID-19. The survey involved 6,249 Indonesian undergraduate students during first month of college or university closure due to COVID-19. The data include four major groups of variable: (A) Individual demographics, including gender, age, place of current residence, spent year in university, majors of education, and occupation. (B) 18 items measured their COVID-19 related knowledge including etiology, symptoms, risk groups, transmission, and prevention. Each question of the knowledge section was rated in such a way that a score of one was given to correct responses and a score of zero was used for incorrect. (C) Six items measured their COVID-19 related attitude including reception of information, social interaction, and self motivation. A three-point Likert scale was utilized from...
Table 1
Sociodemographic characteristics of the participants (n=6249).

| Variable                                      | Freq (n) | % |
|-----------------------------------------------|----------|---|
| Gender                                        |          |   |
| Male                                          | 1677     | 26.84 |
| Female                                        | 4572     | 73.16 |
| Age                                           |          |   |
| ≤20                                           | 4423     | 70.78 |
| >20                                           | 1826     | 29.22 |
| Place of current residence                    |          |   |
| Cities                                        | 4184     | 66.95 |
| Rural                                         | 2065     | 33.05 |
| Spent year in university                      |          |   |
| 1 year                                        | 2337     | 37.40 |
| 2 year                                        | 1881     | 30.10 |
| 3 year                                        | 1302     | 20.84 |
| 4 year                                        | 640      | 10.24 |
| 5 year                                        | 89       | 1.42 |
| Majors of education                           |          |   |
| Medicines and public health                   | 546      | 8.74 |
| Science and technology (ex. Biology, Physics, Engineering etc.) | 764 | 12.23 |
| Socials and humanities (ex. Politics, Arts etc.) | 4939 | 79.04 |
| Occupations                                   |          |   |
| Students                                      | 5603     | 89.66 |
| Students and workers                          | 646      | 10.34 |

1 (disagree) to 3 (agree) with a neutral midpoint (point 2). (D) 12 items measured their COVID-19 related practice including compliance, prevention efforts, and a clean and healthy lifestyle. A three-point Likert scale was utilized from 1 (never) to 3 (always). The questionnaire is provided as a supplementary file. Demographic characteristics of respondents are presented in Table 1. The detailed assessments of responses on COVID-19-related knowledge, attitude, and practice by undergraduate students of Indonesian are depicted in Table 2–4. The detailed description of relationship between sociodemographics, knowledge, attitude, and practice are depicted in Table 5–9.

2. Experimental design, materials and methods

The research adopted a descriptive online cross-sectional survey design to evaluate COVID-19-related knowledge, attitude, and practice among Indonesian undergraduate students. The dataset included thousands responses collected between 27th April and 2nd May 2020 from more than ten universities in Indonesia. Due to the universities were closed at the time of data collection, it was not feasible to conduct population-based survey. The main researchers opted to use WhatsApp Messenger for enrolling potential participants. A questionnaire was designed and executed using google forms and link generated was shared on WhatsApp groups of faculties. Link was also shared personally to other faculties. Faculties were required to complete the consent form before forwarding the URL to their students. The delivered link to undergraduate students using the combination of purposive and snowball techniques helped to select the respondents. The inclusion criteria were (1) undergraduate students, (2) healthy without COVID-19, and (3) never suffered from COVID-19. A total of 6,252 responses were received, but three responses were eliminated because were met criteria. Finally, 6,249 responses were used for further analysis.

The original items of the Questionnaire were generated from the results of literature reviews according to previous study towards COVID-19 [1-3], and MERS-SARS [4,5], and the explanation about COVID-19 informed in the WHO’s website [6]. After translating to Indonesian with applied the combined techniques [7], the questionnaire was sent to three infectious disease specialists at Muhammadiyah hospital to get their opinions regarding its simplicity, relevance, clarity, and
Table 2
Response to knowledge items (n = 18 items).

| Questions                                                                 | Correct answer | | Wrong answer |
|---------------------------------------------------------------------------|----------------|---|---------------|
| Freq (n)                                                                  | %              | Freq (n) | %             |
| K1. COVID-19 is a disease caused by coronavirus                            | 2437           | 39.00    | 3812          | 61.00         |
| K2. The main clinical symptoms of COVID-19 are fever, fatigue, dry cough, and myalgia | 5606           | 89.71    | 643           | 10.29         |
| K3. People with COVID-19 also show no symptoms, called OTG (People without Symptoms) | 5736           | 91.79    | 513           | 8.21          |
| K4. Not everyone with COVID-19 has an increasingly severe condition, except the elderly | 4834           | 77.36    | 1415          | 22.64         |
| K5. People with COVID-19 who have chronic diseases such as diabetes, heart disease, and obesity have an increasingly severe condition | 4999           | 80.00    | 1250          | 20.00         |
| K6. Children and teenagers do not need to make efforts to prevent COVID-19 infection because they have a strong immune system | 5716           | 91.47    | 533           | 8.53          |
| K7. People with a strong immune system will not get infected with COVID-19 | 2785           | 44.57    | 3464          | 55.43         |
| K8. People with COVID-19 who show no symptoms or OTG (People without symptoms) cannot infect the virus to others | 5013           | 80.22    | 1236          | 19.78         |
| K9. COVID-19 is spread through the respiratory droplets of people infected with COVID-19 | 4936           | 78.99    | 1313          | 21.01         |
| K10. The dead bodies of people with COVID-19 who have not been buried can be a source of the spread of the COVID-19 virus | 4239           | 67.83    | 2010          | 32.17         |
| K11. The buried dead bodies of people with COVID-19 can be a source of the spread of the COVID-19 | 4437           | 71.00    | 1812          | 29.00         |
| K12. COVID-19 cannot penetrate cloth masks that are commonly worn by the public | 1692           | 27.08    | 4557          | 72.92         |
| K13. COVID-19 only spreads through objects, it is not airborne | 2543           | 40.69    | 3706          | 59.31         |
| K14. Currently, there is no effective drug for COVID-19, but the treatment of early symptoms and intensive care can help people with COVID-19 to recover | 5551           | 88.83    | 698           | 11.17         |
| K15. To prevent COVID-19 infection, we must avoid going to crowded places like markets and train stations as well as avoid using public transportation | 6116           | 97.87    | 133           | 2.13          |
| K16. Avoid travel across cities can prevent the spread of COVID-19 | 5979           | 95.68    | 270           | 4.32          |
| K17. The transmission of the COVID-19 virus can be prevented by not touching the face | 5311           | 84.99    | 938           | 15.01         |
| K18. Isolation and treatment of people infected with the COVID-19 virus are effective ways to reduce the spread of the virus | 6128           | 98.06    | 121           | 1.94          |

comprehensive [8]. Re-validated using Rasch model measurement showed that the questionnaire having acceptable reliability and validity, with Real item reliability (Real RMSE) 0.97 for attitude scale, 0.98 for knowledge scale, and 0.99 for practice scale.

The individual demographics are the potential sources related students’ knowledge, attitude, and practices. The respondents’ demographics, COVID-19-related knowledge, attitude, and practice were analyzed using frequencies and percentages. Pearson’s rank correlation analyses to understand the relationships between knowledge, attitude, and practice. Independent samples t-test and one-way ANOVA were performed in assessing any difference in mean score by de-
Table 3
Attitude toward COVID-19 infection prevention (n = 6 items).

| Questions                                                                 | Disagree Freq (n) | %    | Not sure Freq (n) | %    | Agree Freq (n) | %    |
|---------------------------------------------------------------------------|-------------------|------|-------------------|------|----------------|------|
| A1. Keeping up with the information regarding the number of COVID-19 cases is important for the community | 115               | 1.84 | 260               | 4.16 | 5874           | 94.00 |
| A2. After knowing the information on the number of cases of COVID-19, I felt worried/scared | 200               | 3.20 | 3349              | 53.59| 2700           | 43.21 |
| A3. Keeping up with the information regarding the government’s call for COVID-19 preventive efforts is important for the community | 851               | 13.62| 1640              | 26.24| 3758           | 60.14 |
| A4. All people with COVID-19 are those who violate the government’s call in the efforts to prevent transmission of COVID-19 | 416               | 6.66 | 254               | 4.06 | 5579           | 89.28 |
| A5. People with COVID-19 should not be given a negative stigma in society | 97                | 1.55 | 44                | 0.70 | 6108           | 97.74 |
| A6. People with COVID-19 who isolate themselves show that they have a responsibility in preventing the transmission of COVID-19 | 97                | 1.55 | 45                | 0.72 | 6107           | 97.73 |

Table 4
Practice related to COVID-19 infection prevention (n = 12 items).

| Questions                                                                 | Never Freq (n) | %    | Occasionally Freq (n) | %    | Always Freq (n) | %    |
|---------------------------------------------------------------------------|----------------|------|-----------------------|------|-----------------|------|
| P1. In the last few days, have you worn a mask when you were in a crowded place? | 218            | 3.49 | 601                   | 9.62 | 5430            | 86.89 |
| P2. In the last few days, have you implemented physical distancing when you were in the crowd? | 152            | 2.43 | 849                   | 13.59| 5248            | 83.98 |
| P3. In the last few days, have you used hand sanitizer when you were in crowded places? | 832            | 13.31| 1863                  | 29.81| 3554            | 56.87 |
| P4. In the last few days, have you washed your hands with soap after going to a crowded place? | 91              | 1.46 | 509                   | 8.15 | 5649            | 90.40 |
| P5. In the last few days, have you immediately changed your clothes before entering the house and having contact with family members? | 478            | 7.65 | 1998                  | 31.97| 3773            | 60.38 |
| P6. As a college student, have you educated people around you with the knowledge of the preventive efforts of COVID-19? | 307            | 4.91 | 2257                  | 36.12| 3685            | 58.97 |
| P7. In the last few days, I have eaten vegetables and fruit. | 63              | 1.01 | 1180                  | 18.88| 5006            | 80.11 |
| P8. In the last few days, I have had enough rest. | 144             | 2.30 | 1580                  | 25.28| 4525            | 72.41 |
| P9. In the last few days, I have been exercising routinely. | 726             | 11.62| 3694                  | 59.11| 1829            | 29.27 |
| P10. In the last few days, I have taken vitamins or supplements to increase my immune system. | 1285           | 20.56| 2746                  | 43.94| 2218            | 35.49 |
| P11. In the last few days, I have been cleaning up my house more frequently. | 46              | 0.74 | 485                   | 7.76 | 5718            | 91.50 |
| P12. In the last few days, I have been washing my hand with soap more frequently. | 27              | 0.43 | 415                   | 6.64 | 5807            | 92.93 |
Table 5
Correlation between scores of knowledge, attitude, and practice.

| Variable               | R square | p-value |
|------------------------|----------|---------|
| Knowledge-Attitude     | 0.186    | 0.000   |
| Knowledge-Practice     | 0.040    | 0.000   |
| Attitude-Practice      | 0.021    | 0.000   |

Table 6
Comparison of demographic characteristics and mean KAP scores (n=6249).

| Variable                        | Freq (n) | Knowledge score | Attitude score | Practice score |
|---------------------------------|----------|-----------------|----------------|---------------|
|                                 |          | Mean (SD)       | Mean (SD)      | Mean (SD)     |
|                                 |          | p-value         | p-value        | p-value       |
| Gender                          |          |                 |                |               |
| Male                            | 1677     | 13.14 (2.76)    | 0.000          | 16.56 (1.72)  | 0.415          | 31.06 (3.80) | 0.000 |
| Female                          | 4572     | 13.57 (2.22)    | 0.000          | 16.53 (1.42)  | 0.000          | 31.92 (3.07) | 0.000 |
| Age                             |          |                 |                |               |
| ≤20                             | 4423     | 13.43 (2.35)    | 0.218          | 16.48 (1.52)  | 0.000          | 31.65 (3.29) | 0.087 |
| >20                             | 1826     | 13.51 (2.47)    | 0.000          | 16.66 (1.46)  | 0.000          | 31.80 (3.33) | 0.000 |
| Place of current residence      |          |                 |                |               |
| Cities                          | 4184     | 13.36 (2.40)    | 0.000          | 16.48 (1.54)  | 0.000          | 31.54 (3.33) | 0.000 |
| Rural                           | 2065     | 13.63 (2.34)    | 0.000          | 16.64 (1.43)  | 0.000          | 31.99 (3.23) | 0.000 |
| Spent year in university        |          |                 |                |               |
| 1 year                          | 2337     | 13.38 (2.33)    | 0.089          | 16.48 (1.50)  | 0.000          | 31.63 (3.34) | 0.005 |
| 2 year                          | 1881     | 13.40 (2.44)    | 0.000          | 16.46 (1.54)  | 0.000          | 31.61 (3.34) | 0.000 |
| 3 year                          | 1302     | 13.55 (2.37)    | 0.000          | 16.63 (1.44)  | 0.000          | 31.74 (3.28) | 0.000 |
| 4 year                          | 640      | 13.61 (2.39)    | 0.000          | 16.75 (1.45)  | 0.000          | 32.14 (2.97) | 0.000 |
| 5 year                          | 89       | 13.64 (2.56)    | 0.000          | 16.70 (1.77)  | 0.000          | 31.36 (3.96) | 0.000 |
| Majors of education             |          |                 |                |               |
| Medicines and public health     | 546      | 13.93 (2.13)    | 0.000          | 16.72 (1.30)  | 0.007          | 32.60 (2.72) | 0.000 |
| Science and technology          | 764      | 13.62 (2.39)    | 0.000          | 16.56 (1.51)  | 0.000          | 31.58 (3.13) | 0.000 |
| Socials and Humanities Occupations | 4939 | 13.37 (2.41)    | 0.000          | 16.51 (1.52)  | 0.000          | 31.57 (3.37) | 0.000 |
| Students                        | 5603     | 13.49 (2.33)    | 0.000          | 16.54 (1.47)  | 0.091          | 31.73 (3.21) | 0.019 |
| Students and workers            | 646      | 13.09 (2.78)    | 0.000          | 16.53 (1.76)  | 0.000          | 31.35 (4.00) | 0.000 |

mographic characteristics. Chi-square tests were applied to find difference in groups (good vs poor) by demographic characteristics. A binary logistic regression analysis was applied as odds ratio (OR) and 95% confidence interval (CI) to find possible determinants of good knowledge, attitude, and practice. The hierarchical (or sequential) multiple regression was conducted to determine whether the variance explained increased significantly with the addition of all variable. A p-value of less than 0.05 were considered significant in all tests.

Declaration of Competing Interest

The research project did not receive financial support from any institutions. The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Ethics Statement

Ethical approval was obtained from the Department of Biology Education, Universitas Muhammadiyah Malang. Respondents' participation was completely consensual, anonymous, and voluntary. The collecting data was conducted according to the Declaration of Helsinki.
### Table 7: Difference in student’s KAP by demographics (n = 6249).

| Variable                        | Knowledge n (%) | Attitude n (%) | Practice n (%) |
|---------------------------------|-----------------|----------------|----------------|
|                                 | Poor Good p-value | Poor Good p-value | Poor Good p-value |
| **Gender**                      |                 |                 |                 |
| Male                            | 1098 (65.47) 579 (34.53) 0.198 | 155 (9.24) 1522 (90.76) 0.001 | 370 (22.06) 1307 (77.94) 0.000 |
| Female                          | 2913 (63.71) 1659 (36.29) | 312 (6.82) 4260 (93.18) | 562 (12.29) 4010 (87.71) |
| **Age**                         |                 |                 |                 |
| ≤20                             | 2871 (64.91) 1552 (35.09) 0.063 | 353 (7.98) 4070 (92.02) 0.018 | 669 (15.13) 3754 (84.87) 0.466 |
| >20                             | 1140 (62.43) 686 (37.57) | 114 (6.24) 1712 (93.76) | 263 (14.40) 1563 (85.60) |
| **Place of current residence**  |                 |                 |                 |
| Cities                          | 2749 (65.70) 1435 (34.30) 0.000 | 337 (8.05) 3847 (91.95) 0.013 | 684 (16.35) 3500 (83.65) 0.000 |
| Rural                           | 1262 (61.11) 803 (38.89) | 130 (6.30) 1935 (93.70) | 248 (12.01) 1817 (87.99) |
| **Spent year in university**    |                 |                 |                 |
| 1 year                          | 1547 (66.20) 790 (33.80) 0.054 | 198 (8.47) 2139 (91.53) 0.094 | 370 (15.83) 1967 (84.17) 0.168 |
| 2 year                          | 1205 (64.06) 676 (35.94) | 138 (7.34) 1743 (92.66) | 283 (15.05) 1598 (84.95) |
| 3 year                          | 812 (62.37) 490 (37.63) | 89 (6.84) 1213 (93.16) | 189 (14.52) 1113 (85.48) |
| 4 year                          | 396 (61.88) 244 (38.13) | 35 (5.47) 605 (94.53) | 76 (11.88) 564 (88.13) |
| 5 year                          | 51 (57.30) 38 (42.70) | 7 (7.87) 82 (92.13) | 14 (15.73) 75 (84.27) |
| **Majors of education**         |                 |                 |                 |
| Medicines and public health     | 300 (54.95) 246 (45.05) 0.000 | 28 (5.13) 518 (94.87) 0.056 | 41 (7.51) 505 (92.49) 0.000 |
| Sciences and technology         | 458 (59.95) 306 (40.05) | 52 (6.81) 712 (93.19) | 98 (12.83) 666 (87.17) |
| Socials and Humanities          | 3253 (65.85) 1686 (34.14) | 387 (7.84) 4552 (92.16) | 793 (16.06) 4146 (83.94) |
| Occupations                     |                 |                 |                 |
| Students                        | 3572 (63.75) 2031 (36.25) 0.035 | 414 (7.39) 5189 (92.61) 0.455 | 807 (14.40) 4796 (85.60) 0.001 |
| Students and workers            | 439 (68.92) 207 (32.50) | 53 (8.32) 593 (93.09) | 125 (19.62) 512 (80.38) |
Table 8
Logistic regression analysis for factors associated with knowledge, attitude and practices among undergraduate students.

| Variable                          | Knowledge       |                        | Attitude       |                        | Practices      |                        |
|----------------------------------|-----------------|------------------------|----------------|------------------------|----------------|------------------------|
|                                  | aOR (95%CI)     | p-value                | aOR (95%CI)    | p-value                | aOR (95%CI)    | p-value                |
| Gender                           |                 |                        |                |                        |                |                        |
| Male                             | 1               | 0.199                  | 1.39 (1.14−1.70)| 0.000                  | 2.02 (1.75−2.34)| 0.000                  |
| Female                           | 1.08 (0.96−1.21)| 0.199                  |                |                        |                |                        |
| Age                              |                 |                        |                |                        |                |                        |
| ≤20                              | 1               | 1                      | 1.10 (0.97−1.25)| 0.148                  | 1.17 (0.93−1.47)| 0.176                  |
| >20                              |                 |                        |                |                        |                |                        |
| Place of current residence       |                 |                        |                |                        |                |                        |
| Cities                           | 1               | 1                      | 1.22 (1.09−1.36)| 0.000                  | 1.30 (1.06−1.61)| 0.013                  |
| Rural                            |                 |                        |                |                        |                |                        |
| Spent year in university         |                 |                        |                |                        |                |                        |
| 1 year                           | 1               | 1                      | 1.10 (0.97−1.25)| 0.148                  | 1.17 (0.93−1.47)| 0.176                  |
| 2 year                           | 1.18 (1.03−1.36)| 0.020                  | 1.26 (0.97−1.64)| 0.080                  | 1.11 (0.92−1.34)| 0.291                  |
| 3 year                           | 1.21 (1.00−1.45)| 0.042                  | 1.60 (1.10−2.32)| 0.013                  | 1.40 (1.07−1.82)| 0.013                  |
| 5 year                           | 1.46 (0.95−2.24)| 0.084                  | 1.08 (0.49−2.38)| 0.840                  | 1.01 (0.56−1.80)| 0.979                  |
| Majors of education              |                 |                        |                |                        |                |                        |
| Medicines and public health      |                 | 1                      | 1.06 (0.90−1.26)| 0.482                  |                |                        |
| Science and technology           | 0.81 (0.65−1.02)| 0.071                  | 0.74 (0.46−1.19)| 0.213                  | 0.55 (0.38−0.81)| 0.002                  |
| Socials and Humanities           | 0.63 (0.53−0.76)| 0.000                  | 0.64 (0.43−0.94)| 0.024                  | 0.42 (0.31−0.59)| 0.000                  |
| Occupations                      |                 |                        |                |                        |                |                        |
| Students                         |                 | 1                      | 1.06 (0.90−1.26)| 0.482                  |                |                        |
| Students and workers             | 0.83 (0.70−0.99)| 0.035                  | 0.89 (0.66−1.20)| 0.456                  | 0.70 (0.57−0.86)| 0.001                  |

Table 9
Summary of hierarchical (or sequential) regression analyses for variables explaining knowledge, attitude and practices.

| Variable                          | Knowledge      |                        | Attitude       |                        | Practices      |                        |
|----------------------------------|----------------|------------------------|----------------|------------------------|----------------|------------------------|
|                                  | β              | Adjusted R² p-value    | β              | Adjusted R² p-value    | β              | Adjusted R² p-value    |
| Step 1                           | 0.006          | 0.000                  | 0.000          | 0.373                  | 0.013          | 0.000                  |
| Gender                           | 0.079          | 0.000                  | −0.011         | 0.373                  | 0.115          | 0.000                  |
| Step 2                           | 0.006          | 0.000                  | −0.003         | 0.000                  | 0.000          | 0.000                  |
| Gender                           | 0.079          | 0.000                  | −0.009         | 0.463                  | 0.116          | 0.000                  |
| Age                              | 0.018          | 0.143                  | 0.054          | 0.000                  | 0.026          | 0.039                  |
| Step 3                           | 0.010          | 0.000                  | 0.005          | 0.000                  | 0.019          | 0.000                  |
| Gender                           | 0.084          | 0.000                  | −0.006         | 0.663                  | 0.122          | 0.000                  |
| Age                              | 0.017          | 0.172                  | 0.053          | 0.000                  | 0.000          | 0.052                  |
| Residence                        | 0.060          | 0.000                  | 0.045          | 0.000                  | 0.000          | 0.000                  |
| Step 4                           | 0.010          | 0.000                  | 0.005          | 0.000                  | 0.019          | 0.000                  |
| Gender                           | 0.083          | 0.000                  | −0.007         | 0.560                  | 0.121          | 0.000                  |
| Age                              | −0.006         | 0.721                  | 0.027          | 0.113                  | 0.010          | 0.531                  |
| Residence                        | 0.059          | 0.000                  | 0.045          | 0.000                  | 0.000          | 0.000                  |
| Spent year in university         | 0.035          | 0.036                  | 0.041          | 0.014                  | 0.021          | 0.200                  |
| Step 5                           | 0.015          | 0.000                  | 0.007          | 0.000                  | 0.025          | 0.000                  |
| Gender                           | 0.078          | 0.000                  | −0.010         | 0.435                  | 0.116          | 0.000                  |
| Age                              | −0.007         | 0.662                  | 0.026          | 0.126                  | 0.009          | 0.605                  |
| Residence                        | 0.060          | 0.000                  | 0.045          | 0.000                  | 0.000          | 0.000                  |
| Spent year in university         | 0.038          | 0.022                  | 0.043          | 0.010                  | 0.025          | 0.133                  |
| Majors of education              | −0.068         | 0.000                  | −0.041         | 0.001                  | −0.079         | 0.000                  |
| Step 6                           | 0.017          | 0.000                  | 0.007          | 0.000                  | 0.025          | 0.000                  |
| Gender                           | 0.073          | 0.000                  | −0.012         | 0.361                  | 0.113          | 0.000                  |

(continued on next page)
Table 9 (continued)

| Variable              | Knowledge | Attitude | Practices |
|-----------------------|-----------|----------|-----------|
|                       | $\beta$   | Adjusted $R^2$ | $p$-value | $\beta$   | Adjusted $R^2$ | $p$-value | $\beta$   | Adjusted $R^2$ | $p$-value |
| Age                   | −0.002    | 0.928    | 0.027     | 0.104     | 0.012         | 0.481     | 0.012     | 0.481         |          |
| Residence             | 0.061     | 0.000    | 0.045     | 0.000     | 0.074         | 0.000     | 0.074     | 0.000         |          |
| Spent year in university | 0.041   | 0.014    | 0.044     | 0.009     | 0.027         | 0.109     | 0.027     | 0.109         |          |
| Majors of education   | −0.066    | 0.000    | −0.040    | 0.001     | −0.079        | 0.000     | −0.079    | 0.000         |          |
| Occupations           | −0.048    | 0.000    | −0.014    | 0.263     | −0.026        | 0.041     | −0.026    | 0.041         |          |
| Step 7                | 0.190     | 0.000    | 0.058     | 0.000     | 0.000         |          | 0.000     | 0.000         |          |
| Gender                | −0.043    | 0.000    | 0.099     | 0.000     | 0.000         |          | 0.000     | 0.000         |          |
| Age                   | 0.028     | 0.065    | 0.012     | 0.463     | 0.000         |          | 0.000     | 0.000         |          |
| Residence             | 0.019     | 0.096    | 0.063     | 0.000     | 0.000         |          | 0.000     | 0.000         |          |
| Spent year in university | 0.026    | 0.084    | 0.019     | 0.243     | 0.000         |          | 0.000     | 0.000         |          |
| Majors of education   | −0.012    | 0.300    | −0.066    | 0.000     | 0.000         |          | 0.000     | 0.000         |          |
| Occupations           | 0.006     | 0.600    | −0.017    | 0.167     | 0.000         |          | 0.000     | 0.000         |          |
| Attitude              | 0.432     | 0.000    | 0.183     | 0.000     | 0.000         |          | 0.000     | 0.000         |          |
| Step 8                | 0.063     |          | 0.000     | 0.000     | 0.000         |          | 0.000     | 0.000         |          |
| Gender                | 0.103     | 0.000    | 0.000     |          | 0.000         |          | 0.000     | 0.000         |          |
| Age                   | 0.010     | 0.544    | 0.000     |          | 0.000         |          | 0.000     | 0.000         |          |
| Residence             | 0.061     | 0.000    | 0.000     | 0.000     | 0.000         |          | 0.000     | 0.000         |          |
| Spent year in university | 0.017    | 0.294    | 0.000     |          | 0.000         |          | 0.000     | 0.000         |          |
| Majors of education   | −0.066    | 0.000    | 0.000     |          | 0.000         |          | 0.000     | 0.000         |          |
| Occupations           | −0.018    | 0.155    | 0.000     |          | 0.000         |          | 0.000     | 0.000         |          |
| Attitude              | 0.150     | 0.000    | 0.000     |          | 0.000         |          | 0.000     | 0.000         |          |
| Practice              | 0.076     | 0.000    | 0.000     |          | 0.000         |          | 0.000     | 0.000         |          |

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Supplementary materials

Supplementary material associated with this article can be found, in the online version, at doi:10.1016/j.dib.2020.105855.

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