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Original Article

# COVID-19-related prejudice toward Asian medical students: A consequence of SARS-CoV-2 fears in Poland

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## ABSTRACT

The coronavirus disease 2019 (COVID-19) outbreak caused by SARS-CoV-2 has triggered global panic. We have conducted an anonymous online survey of Asian medical students in Poland to assess whether they experience any form of prejudice related to the ongoing pandemic. As demonstrated, the COVID-19 outbreak had triggered xenophobic reactions toward students of Asian-origin ( $n=85$ ) before the first SARS-CoV-2 case was confirmed in Poland. Facing prejudice, including discrimination related to COVID-19, may add to feelings of isolation of students of Asian origin who study abroad, and affect career development, especially for students. We recommend that universities should proactively develop policies that support students, faculty, and staff affected by discriminatory behavior both during the current outbreak and in the future. However, preventing such behaviors should also be enforced by national authorities

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## Introduction

The outbreak caused by betacoronavirus SARS-CoV-2 that emerged in December 2019 in China and later spread to other countries has forced the World Health Organization to first declare a Public Health Emergency of International Concern at the end of January and then to announce a pandemic of COVID-19 (coronavirus disease 2019) on March 11, 2020 [1–3]. The first cases in North America, Oceania, and Europe were reported in January 2020, while the spread of COVID-19 to Africa and South America was confirmed in February 2020 [4].

With epidemiological updates reported by different authorities daily, the outbreak has received enormous attention from the worldwide mass media [2]. However unavoidable, this has triggered an unintended backlash of public fear and panic, which in selected countries has preceded the emergence of the first confirmed COVID-19 cases [5,6]. Considering that the majority of affected individuals, including those with fatal outcomes, are of Asian origin, one could, sadly, expect an increase in Asia-phobic reactions [7]. In the past, the epidemic of infectious diseases has also been associated with the backlash of discrimination and xeno-

phobia, and this was also seen during the SARS outbreak in 2003 [8–10].

There is no doubt that the surgical masks, which have recently been in short supply in China, have become one of the symbols of the current outbreak. Wearing them has become very common in Asia, particularly following the SARS outbreak in 2002, and this practice has also crossed over into immigrant Asian populations [11]. Apart from preventing the spread of disease, they are worn for unrelated reasons such as to guard against air pollution and allergens, or as a social firewall [11]. However, the association between SARS-CoV-2 and the use of face masks may also be a potential source of public misassumption that any Asian individual wearing them constitutes a threat of COVID-19.

To identify whether individuals of Asian origin may experience any prejudice related to SARS-CoV-2, we have conducted an anonymous online survey of Asian medicine students at Poznan University of Medical Sciences in Poland. The study, conducted before the first COVID-19 case was identified in Poland, explored the place and nature of such prejudice/xenophobic events, and determined the level at which they have affected the surveyed subjects. According to the Central Statistical Office in Poland, approximately 13,000 individuals of Asian origin study in Poland [12], and therefore, the experiences of prejudice reported here may represent a part of the much wider problem on the national level.

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**Table 1**  
The structure of the questionnaire used in this study to measure COVID-19 related prejudice in the group of Asian students in Poland.

#### Demographic questions

1. The Asian country of origin
2. Gender
3. Age
4. How long have you been studying in Poznań?

#### Face-masks questions

1. Do you tend to wear a face-mask when in Poznań? (yes/no)
  - 1a. Please select the purpose(s) for which you are wearing a face-mask in Poznań (multiple answer question)
    - to protect me from air pollution
    - to protect me from catching an infection from other people
    - to protect me from allergens
    - protect others from catching an infection from you when you are symptomatic
    - other, please specify
  - 1b. Please select month(s) during which you usually wear a face-mask (Jan–Dec)

#### Prejudice questions

1. Have you ever experienced any form of prejudice related to the 2019nCoV outbreak in public transportation or on the street in Poznań/Poland? (yes/no)
  - 1a. Please describe your experience(s)
  - 1b. Did it affect you negatively? (0 – not at all; 5 – it affected me very much)
2. Have you ever experienced any form of prejudice related to the 2019nCoV outbreak at restaurants in Poznań/Poland? (yes/no)
  - 2a. Please describe your experience(s)
  - 2b. Did it affect you negatively? (0 – not at all; 5 – it affected me very much)
3. Have you ever experienced any form of prejudice related to the 2019nCoV outbreak in shops in Poznań/Poland? (yes/no)
  - 3a. Please describe your experience(s)
  - 3b. Did it affect you negatively? (0 – not at all; 5 – it affected me very much)
4. Have you ever experienced any form of prejudice related to the 2019nCoV outbreak at medical service units in Poznań/Poland? (yes/no)
  - 4a. Please describe your experience(s)
  - 4b. Did it affect you negatively? (0 – not at all; 5 – it affected me very much)
5. Have you ever experienced any form of prejudice related to the 2019nCoV outbreak at Poznan University of Medical Sciences? (yes/no)
  - 5a. Please describe your experience(s)
  - 5b. Did it affect you negatively? (0 – not at all; 5 – it affected me very much)
6. Have you ever experienced any form of prejudice related to the 2019nCoV outbreak under any other circumstances in Poznań/Poland? (yes/no)
  - 6a. Please describe your experience(s)
  - 6b. Did it affect you negatively? (0 – not at all; 5 – it affected me very much)

## Materials and methods

The study was conducted in February 2020 before the first case of COVID-19 was confirmed in Poland on March 4, 2020. To explore whether Asian medical students in Poland may face any prejudice/xenophobia related to an outbreak of COVID-19, an anonymous, online survey based on a self-designed, structured questionnaire was conducted (Table 1). As previously indicated, research that is based on an online questionnaire creates the opportunity to swiftly reach specific groups of individuals and ensures the safety of surveyed individuals under pandemic conditions, which is a recommended approach [13–15]. The anonymity of the study assured the elimination of embarrassment often seen in subjects experiencing discrimination and stigma [16]. The selected group included Asian students at Poznan University of Medical Sciences in Poland who were directly invited to complete the survey via an e-mail message. All surveyed students were living in the city of Poznań (Greater Poland Voivodeship).

The survey data collected anonymously do not require approval by the local bioethical committee in Poland. Potential respondents were informed in the invitation message about the general subject matter of the survey, its voluntary and fully anonymous character (including no IP tracking). The students were asked to provide answers to questions exploring whether they have faced any prejudice during their stay in Poland (on the street, at restaurants, during shopping, at health service units, and at university) since the outbreak began in China and if such was the case, to briefly describe their experiences and to indicate how much it affected them on 0–5 Likert scale (0 – not at all; 5 – very much). Considering that wearing the face mask could play a potential role in COVID-19-related prejudice, we have identified the frequency and primary cause of their use. Demographic data on gender, age, and time of stay in Poznań was also collected.

## Results and discussion

The survey was completed by eighty-five medical students from Asia (mean  $\pm$  SD age  $23.8 \pm 3.8$ ; 49 females, 36 males), mostly from Taiwan (75.3%), who study at Poznan University of Medical Sciences in Poland. All of them have been living in Poznań for at least half a year (with a mean  $\pm$  SD of  $2.7 \pm 1.4$  years).

Wearing the face mask was relatively common within the studied group, with 43.5% of students declaring that they wear them regularly, particularly in December, January and February (Fig. 1). The primary reason behind their use was self-protection from catching infections from other people but also to prevent others from infection when the wearers themselves experienced symptoms; protection from air pollutants was also a frequently indicated motivation (Fig. 1). In Poland, seasonal influenza and the lowest air quality peak in the December–February period, which in 2019–2020 coincided with the time of the SARS-CoV-2 outbreak in China, its further spread and associated media coverage. Wearing a face mask in public is rarely practiced in Poland. Therefore, the sight of individuals of Asian origin who use them may not be well understood by the general public as regards the reasons behind this use and incorrectly interpreted as a sign of some highly contagious disease, in this instance, COVID-19.

We have found that 61.2% of the surveyed students have experienced prejudice in Poland related to the current coronavirus epidemic, and it was more frequently witnessed by those wearing face masks than those who do not (71.2% vs 28.2%). The prejudice most commonly encountered, by 47.1%, in public transportation and on the street. Reported reactions to Asian students under these circumstances included stepping away, changing seats on the bus, being asked to keep the safe distance, covering mouth and nose, showing judgmental facial expressions, pointing with a finger and whispering comments in Polish, spitting, tossing a beer bottle and

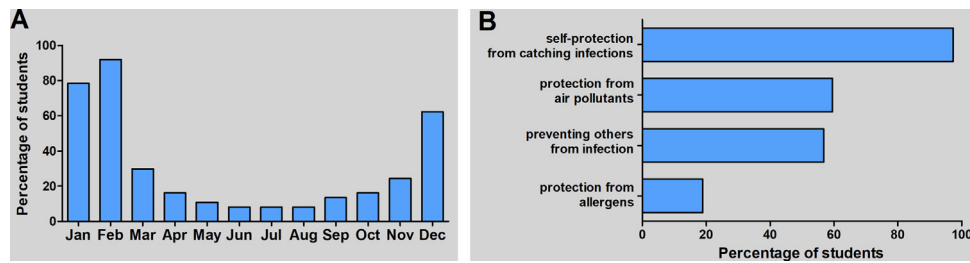


Fig. 1. Months during which Asian students ( $n = 37$ ) wear the face mask (A) and motivations behind their use (B).

using offensive language. When indicating how much these situations affected the surveyed students using a Likert scale, a score of 5 was the most frequently selected (median; IQR: 3; 2–5).

A lower percentage of Asian students also reported prejudice at restaurants (12.9%) and during shopping (21.2%). This was mostly manifested by people staring at them, pointing with a finger and asking them if they carry coronavirus. Some were also asked to leave restaurants due to other customers' complaints or felt some public pressure in the form of discouragement from touching products available in the market. The most frequently selected score on a Likert scale for situations at restaurants and shops was respectively 5 (median; IQR: 5; 4–5) and 2 (median; IQR: 3; 2–4).

Prejudice was also experienced in health service units in which medical students have classes or which they visit as patients. Approximately one-fifth of those surveyed (21.2%) reported the terrified reactions of other patients after encountering them, and being asked whether they carry coronavirus. Some patients also questioned the supervising medical doctors for allowing Asian students to do clinical rounds and some students were also told to remove a face masks when they visit patients to avoid unnecessary tension. Moreover, medical staff, namely one nurse, expressed her fear over catching a virus when withdrawing a student's blood for lab tests. These reactions had an obvious negative effect on Asian students, since 5 was the most frequently selected score when evaluating them on the Likert scale (median; IQR: 3; 2–5).

Last but not least, nearly one quarter (24.7%) of Asian students have faced preconceptions related to COVID-19 at the university where they study. The observed reactions included other students stepping away, staring continuously, making xenophobic comments, assuming that wearing a face mask is equal to being positive for SARS-CoV-2 and opening the doors with a tissue after an Asian student has touched the handle. Moreover, some lecturers have made some jokes about coronavirus which were not considered funny or have asked students to remove the face masks despite explanations that the mask was due to flu symptoms and for the protection of classmates. Again, these situations had a negative effect on most of the surveyed students – a score of 5 was most frequently selected (median; IQR: 4; 3–5).

In conclusion, the reactions presented here clearly show that Asian students in regions yet unaffected by SARS-CoV-2 could have already experienced an uncomfortable level of prejudice in the public spaces encompassing transport, gastronomy, shopping, health services and university. Such behaviors can particularly affect those individuals of Asian origin who are tending to wear face masks. Overall, these findings underscore the responsibility of different parties in overcoming and preventing discrimination during outbreaks of infectious diseases. Firstly, universities that host Asian students and staff from abroad should support their students during the outbreak (and any other future epidemic emerging from Asian region) and protect them from harmful misconceptions. This may be achieved by providing reinforcing statements as well as

educational campaigns related both to the outbreak and the true reasons behind the use of face masks [17]. The preventive measures, as well as policy development and implementation, should also be undertaken by those involved in the management of international student exchange programs, and by national and international authorities for higher education. To maximally increase output, mass and social media should be employed in undertaken actions [18]. The successful implementation of anti-discriminatory practices requires to follow advice on intercultural communication, also when reporting and visualizing public health risks [19,20].

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#### Conflicts of interest

The authors declare no conflict of interest.

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