Medical student engagement in a massive COVID-19-screening programme

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1 | WHAT PROBLEMS WERE ADDRESSED?

From October 2020 to January 2021, medical students from Lyon were mobilised to participate in the massive COVID-19 screening of the population (1 385 927 inhabitant). This student engagement was inspired by the study of Klasen et al. involving students in testing centres. This mobilisation was led and organised by the students, accompanied by their teachers.

2 | WHAT WAS TRIED?

All fourth-year students of the Faculté de Médecine Lyon Est underwent a training programme based on the CanMEDS (medical pedagogical referential) objectives to acquire new competencies related to nasopharyngeal swabs consisting in: a 4-h lecture, a practical simulation on a dummy and an on-site 2-h supervision with experienced staff.

Volunteer students were mobilised for a week on their internship time. In the testing center, students greeted patients (from children to elderly), informed them about screening and isolation protocols and performed nasopharyngeal swabs, supervised by a senior infectiologist.

To evaluate the pedagogical benefit and the practical experience gained by the students, an anonymous online questionnaire was sent to all mobilised students to fill before and after their intervention.

Surveys used Likert scales, short open and closed questions, to measure the potential changes in their stress level across the week, their satisfactory level, their impression of usefulness, and their perception of their own competencies.

Statistical analyses were performed using GraphPad Prism. Comparisons were performed using the Student’s t test after verification of equality of variances when data were normally distributed, and using the nonparametric Wilcoxon test when the hypothesis of normality of distribution was not verified. Quantitative variables were expressed as mean (±standard deviation, SD).

3 | WHAT LESSONS WERE LEARNED?

A total of 234 medical students involved in the center for 16 weeks performed 54 454 swabs allowing the detection of 9418 COVID-19 positive cases. The response rate was 86.9% for the first survey and 73.4% for the second.

The mean (±SD) overall satisfaction rate was 6.99/10 (±2.42). Students rated the usefulness of their mobilisation at 8.33/10 (±2.20). In the comment section, they reported feeling ‘useful’ and a satisfaction to serve the community during these times of need.

They reported a significant improvement of their ability to perform the swabs, advise patients on performing the different tests, answer questions and reassure adults and children before the swab (p < 0.001 for all comparisons). They also reported a significant reduction of their stress level (p < 0.001). Improvement of their interpersonal skills with patients was reported by 83.2% of students, improvement of their technical abilities by 38.7%, improvement of their theoretical knowledge by 18.0%, improvement of their clinical reasoning by 11.0%, and 15.4% considered this experience was not useful from a pedagogical perspective.

No student was contaminated with Sars-CoV-2.
DISCUSSION AND TAKE-HOME MESSAGES

This engagement gave the students an important implication in the massive screening activity during the second COVID-19 wave in Lyon. Participating in this social accountability programme was a positive experience for them both on a personal and on a pedagogical level and provided a feeling of being useful as future health(121,240),(881,615)