

Just in time

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Summary

In December 2019, the first official COVID-19 case was identified in China. Only a few months later, in February 2020, the Netherlands announced its first COVID-19 case. The worldwide spread of the virus was unprecedentedly fast and led the World Health Organization to declare COVID-19 a pandemic in March 2020. Shortly after, the Dutch government introduced the first nationwide lockdown that caused the closures of non-essential stores, cafes, restaurants, schools, and universities. To prevent any delays in education, universities delivered education entirely online until the end of the academic year 2019–2020. Due to the decrease in the number of cases and hospitalizations, the Dutch government relaxed the measures in the summer of 2020. Maastricht University (the Netherlands) decided to offer a hybrid education in the academic year 2020–2021. This decision also brought the responsibility of creating a safe environment for students and employees. In addition to various teams ensuring safety, the University Board requested support from our team during their decision-making processes in combatting the COVID-19 pandemic in the university. This dissertation demonstrates how a team of experts in behavior change, health and applied social psychology, health promotion and education, and epidemiology supported the University Board in response to a global health crisis. It describes the studies that have been conducted and interventions that have been developed.

Chapter 1 presents an introduction to the problem and context, the approach that had been taken, and the studies and interventions that are described in this dissertation. In the first year of the pandemic, without the availability of vaccines and medical treatments, the focus was on preventive behaviors, such as distancing, testing, and isolation. While offering a hybrid education, in addition to the infrastructural changes, Maastricht University enforced certain COVID-19 guidelines within the university. These guidelines were in line with the Dutch government's advice and intended to increase the safety of students by minimizing the spread of the virus as much as possible. However, the success of achieving this goal was also dependent on students' adherence to those guidelines. Hence, we conducted Studies 1 and 2 (Chapters 2 and 3) to gain an understanding of the factors that determine students' adherence to guidelines. In Chapter 2, we present a study that was aimed to assess students' adherence to COVID-19 guidelines of the university and identify factors that facilitated or hindered adherence. We conducted on-site and online focus group interviews with students on the topics of general COVID-19 guidelines of the university, and more specifically, keeping distance, staying at home and getting tested when having symptoms, and wearing facemasks. Moreover, we conducted online interviews with stewards and security officials to gather more information about students' (non) adherence behaviors. Stewards and security officials were employed by the university to provide surveillance, in this case preventing crowds while students are leaving the classrooms. The findings of this study demonstrated that the interviewed students were willing to adhere to the guidelines of the university. Certain facilitators, such as the infrastructure of the buildings and staff, and barriers, such as difficulties with telling other students to follow guidelines, were mentioned as determinants of their adherence behavior. Interviews with stewards/security were in line with the findings from the interviews with students, that students were willing to follow the guidelines but struggled to do so in certain situations,

such as a decrease in the distancing before and after the lectures. This qualitative study provided information on determinants of students' adherence to guidelines.

In Chapter 3, an online cross-sectional survey (Oct–Nov 2020) is presented, which aimed to further explore behavioral determinants (and underlying beliefs) of university students' adherence to COVID-19 guidelines, including keeping 1.5 m distance, avoiding crowds, getting tested, and isolating, and select the most relevant ones as input for future interventions. Attitude, perceived norm, self-efficacy, and several beliefs, such as risk perception beliefs (e.g., "I am not afraid because I am young"), attitudinal beliefs (e.g., "I feel responsible for telling people to adhere to guidelines"), self-efficacy beliefs (e.g., "COVID-19-prevention guidelines are difficult to adhere") were selected as the targets of a brief intervention, a Christmas/New Year message to students, to provide them support for having a safe festive break.

After December 2020, several COVID-19 vaccines became available, and with that, the new challenge was to achieve high vaccination uptake to open up society again. The Dutch government first started vaccinating the vulnerable populations, elderly people, and healthcare professionals. The next groups were invited by their age in a descending order. Therefore, university students were close to the bottom of the priority list. To support students in their vaccination decision, we aimed to develop an intervention (Chapters 4 and 5). We first aimed to gather information on students' vaccination intention and its determinants. Hence, in Chapter 4, we describe an online cross-sectional survey with Maastricht University students in March 2021 to explore university students' COVID-19 vaccination intention and select the most relevant determinants/beliefs. The findings demonstrated that 80% of students intended to vaccinate against COVID-19, and the most relevant determinants, that were associated with vaccination intention and had room for improvement, were concerns about safety and side effects of the vaccine, and trust in government, quality control, and the pharmaceutical industry. Other relevant determinants/beliefs were risk perception, attitude, perceived norm, and self-efficacy beliefs. Based on the findings of this study and following the Intervention Mapping framework, we developed an online intervention that went online once students were eligible to vaccinate and aimed to support students in their vaccination decisions. Chapter 5 provides information on the development and implementation of the vaccination intervention and lessons learned from the speedy process.

In June 2021, leaving one academic year behind in tackling the COVID-19 pandemic, COVID-19 vaccines were available and accessible. However, this did not guarantee the end of the COVID-19 pandemic. Therefore, universities were still required to prepare for the new academic year (2021–2022) under the new circumstances, i.e., improvements in vaccination coverage and the pandemic course, but also uncertainties due to the new variants. With all that in mind, universities were willing to invite students and personnel to campus in September 2021. To make a smooth transition 'from online to on-site', it was deemed important to explore personnel's beliefs about returning to campus and their perceptions of a safe working environment. Hence, in Chapter 6, we present an online survey among Maastricht University personnel in June 2021 to investigate personnel's beliefs about a safe return to campus in the new academic year. Based on the findings of this study, about 95% of personnel were already vaccinated or willing to do so. Over half of the respondents (58%) found the university a safe place to return to work in the new academic year (2021–2022).

The group who felt relatively more unsafe indicated that it is too risky to return to campus in September 2021, and they were worried about getting infected. The group who felt safe, on the other hand, indicated that it is certainly possible to return to campus, and they trust others' adherence to the guidelines. In addition, the findings demonstrated that most personnel preferred a transition period to get accustomed to the new work environment after working one year at home. The findings of this study were translated into practical recommendations to support the University Board in their preparation to organize research and teaching in the academic year 2021–2022. In addition to the recommendations, a brief intervention, a webinar discussing the Board's plans for safe return and making a link with the findings of this study, was developed, and implemented.

In Chapter 7, the main findings of the studies in this dissertation are summarized. The methodological, practical, and future considerations are discussed, such as 1) the need for speeding up the planning process of interventions to provide a timely response, 2) the need for monitoring of behaviors and their determinants, 3) the urgency of implementation over evaluation in times of crisis, 4) the involvement of stakeholders in planning, and 5) adoption of open science principles.