

Results of the working-from-home questionnaire

Introduction

Due to the coronavirus disease (COVID-19) pandemic, all non-essential personnel – among which many PhD candidates – from all university medical centers in the Netherlands were advised to work from home from March 2020. These measures are of undeniable importance to prevent the spread of COVID-19 and to ensure the health of PhD candidates and employees. The Amsterdam UMC has provided tools such as the CDW and VIEW environment, which enables their employees to work remotely. However, a digital workplace at home cannot replace the physical office where colleagues can be met to exchange thoughts and ideas and where theoretical work can be alternated with practical lab or hospital work. Considering these changes in our new working environment, the Association of Amsterdam UMC PhD candidates (ASAP) was curious about whether working from home impacted the PhD candidates' work and well-being during the COVID-19 pandemic. ASAP constructed a questionnaire including questions on how PhD candidates experience working from home, which aspects they find positive or negative, and whether the pandemic has delayed their PhD trajectory. In January 2021, ASAP sent out the Working from Home (WFH) questionnaire to all PhD candidates of the Amsterdam UMC using the monthly ASAP newsletter. In addition, members of ASAP were asked to share the link to the questionnaire with PhD candidates within their departments. In addition to the questionnaire being distributed among PhD candidates of the Amsterdam UMC, the WFH questionnaire was also shared within PhD candidate communities from other university medical centers (UMC). Methods which other UMC's used to distribute the WFH questionnaire are not known to ASAP. After several reminders, the WFH questionnaire was closed on the 30th of April 2021.

Overall, 370 PhD candidates filled in the WFH questionnaire, of whom 146 work for Amsterdam UMC (location VUmc, n=73; location AMC, n=73) (Figure 1). In this short report, we describe the overall results of the WFH questionnaire and the results specifically for the Amsterdam UMC (including both the AMC and the VUmc sides).

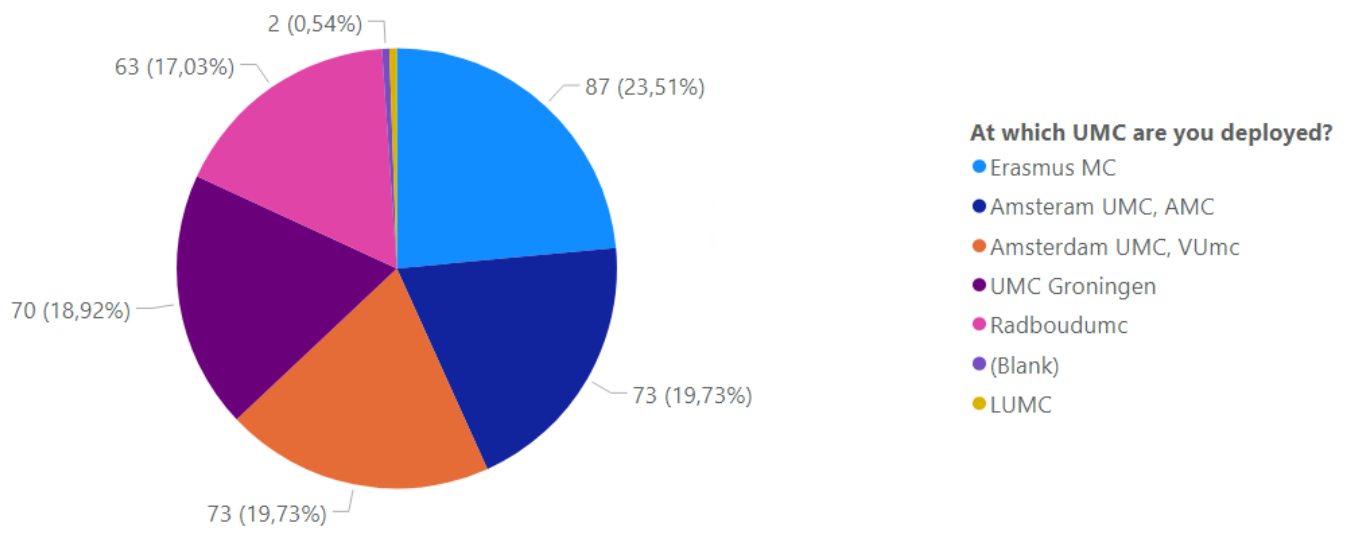


Figure 1. University affiliations of PhD candidates (n=370)

Results

Descriptive statistics on the PhD candidates' experience with working from home are presented in Figures 2-20. In cases where the descriptive statistics of all respondents matched those of Amsterdam UMC respondents, the results for all respondents were left out. Shortly, more than 50% of PhD candidates experienced a delay in their PhD trajectory due to the COVID-19 pandemic (**Figure 2**). Whilst prior to the COVID-19 pandemic, most PhD candidates would incidentally work from home, currently most candidates work from home 5 days a week (**Figure 3**). Of these PhD candidates, 76% candidates are obliged to do so (**Figure 5**). At the Amsterdam UMC, this percentage of obligatory working from home seems to be a bit higher (76% versus 87%). This could be due to an overrepresentation of certain departments within the Amsterdam UMC (e.g. Epidemiology and Data Science [n=38]). Most PhD candidates work the same hours as before the pandemic, while 18% reports to work more hours since the COVID-19 pandemic (**Figure 4**). The way that PhD candidates experience working from home on a scale from 1 to 10 did not seem to have been impacted by the COVID-19 pandemic (**Figure 6**). Nevertheless, there seems to be quite some variation between PhD candidates in this regard; 42% of students find that their working from home view has become more negative during the pandemic while 37% find that it has become more positive (**Figure 7**). While most PhD candidates rated their personal life irrespective of the situation at work quite positively (most having a score ≥ 7 on a scale from 1-10) before the pandemic, this has decreased during the pandemic with a higher frequency of PhD candidates indicating to rate their personal life more negative (i.e. a significant increase of students scoring 5 or less) (**Figure 8**).

With regards to work-specific aspects of working from home, the majority of PhD candidates indicate to work less efficiently from home (53%; **Figure 9**). Common reasons as to why PhD candidates seem to work less efficiently are: (1) working better when surrounded by colleagues, (2) having too small workplace at home, and (3) a lack of sufficient office equipment (**Figure 10**). Options which would increase the work efficiency of PhD candidates are: (1) having a quiet workplace, (2) sufficient access to data, and (3) sufficient internet access (**Figure 10**).

Most PhD candidates indicated to gain less joy from working from home compared to before the COVID-19 pandemic (~80%) (**Figure 11**). Almost all PhD candidates indicated to miss the informal contact with colleagues in addition to working in a team, the variety in their work activities and their workplace (**Figure 12**). Benefits related to working from home included flexibility, less commute time, and spare time benefits (**Figure 13**). Disadvantages included less informal contact with co-workers, less structure, less social contact, and decreased work/private life balance (**Figure 14**).

Regarding the physical at-home workplace, 40% of PhD candidates indicated to have physical complaints since working from home since March 2020 (**Figure 15**). Of these, most PhD candidates indicated to have shoulder and back problems (data not shown). Approximately

25% of PhD candidates borrowed equipment from the hospital (**Figure 16**). Also, the majority of candidates spent >200 euros on improving their workplace from home (**Figure 17**).

With regards to communication and collaboration, most PhD candidates indicated that the collaboration between PhD candidates and their supervisors has not changed (**Figure 18**). Alas, most PhD candidates indicated that their supervisor or the UMC communicated insufficiently with regards to the improvement of their workplace at home (**Figure 19**). Nevertheless, 64% of PhD candidates indicated that they prefer to work from home more often after the COVID-19 pandemic. The desired frequency of working from home was not included in the question (**Figure 20**).

Conclusion

The results from the WFH questionnaire show that PhD candidates work less efficiently from home and that the informal contact with colleagues is dearly missed. Besides a decline in efficiency and joy, PhD candidates experience more physical complaints since working from home in March 2020. Also, a large proportion of PhD candidates (>50%) expect to have a delay in their PhD trajectory. Our results further show that the communication on the working-from-home-situation from the UMC and supervisor(s) towards their PhD candidates could be improved.

Recommendations

While the Amsterdam UMC has provided measures to establish a functioning home-office, including the CDW/VIEW and consultation from the arbodienst, PhD candidates would greatly benefit from enhanced and more frequent communication with their supervisors and the UMC. Thus, we recommend that both the supervisors and the UMC as well as PhD candidates seek frequent communication to each other and to peers. Further, we recommend that supervisors help facilitate or initiate contact between the PhD candidate and the arbodienst, should they experience problems related to the work from home space. In addition to that, we recommend that the UMC re-evaluates the possibilities for facilitating the work from home space, since the 200€ reimbursement was insufficient for the majority of PhD candidates. To PhD candidates who absolutely cannot establish a workspace at home, we recommend to talk to their head of department together with their supervisors to find a solution such as an isolated workspace within the AUMC. Concerning the great concern of delayed trajectories, we recommend supervisors and their PhD candidates to openly discuss about time and funding issues. We further recommend any superiors and the Amsterdam UMC to widely communicate the possibilities for funding, paid extensions or other possible solutions.

After the COVID-19 pandemic, PhD candidates will likely want to work from home more frequently than they did prior to the pandemic. At the same time, lifting the restrictions from

visiting the office will allow those who seek social and intellectual interaction to go back to their physical work space. This perception of a new freedom is expected to normalize the mental, physical and efficiency-related issues that PhD candidates currently experience and hence, the presented issues will have to be re-evaluated in a new post-pandemic situation. However, as (partially) working from home is widely welcome by PhD candidates, an effort to improve the work (from home) environment of PhD candidates is necessary. This will improve efficiency, joy and prevent physical complaints of working from home.

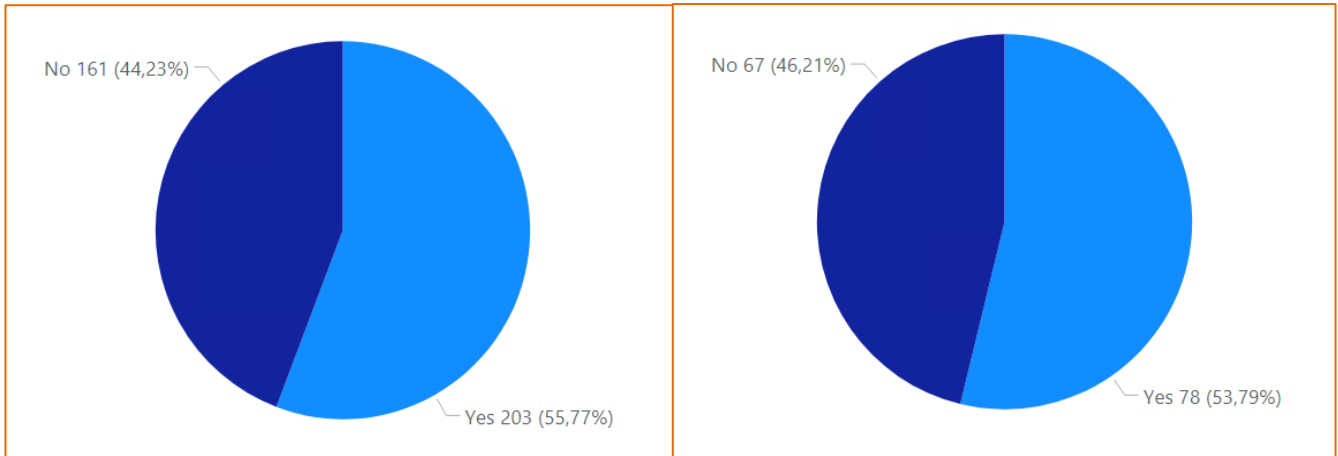


Figure 2. Results with regards to whether PhD candidates experienced a delay during the COVID-19 pandemic (left for all PhD candidates and right specifically for Amsterdam UMC).

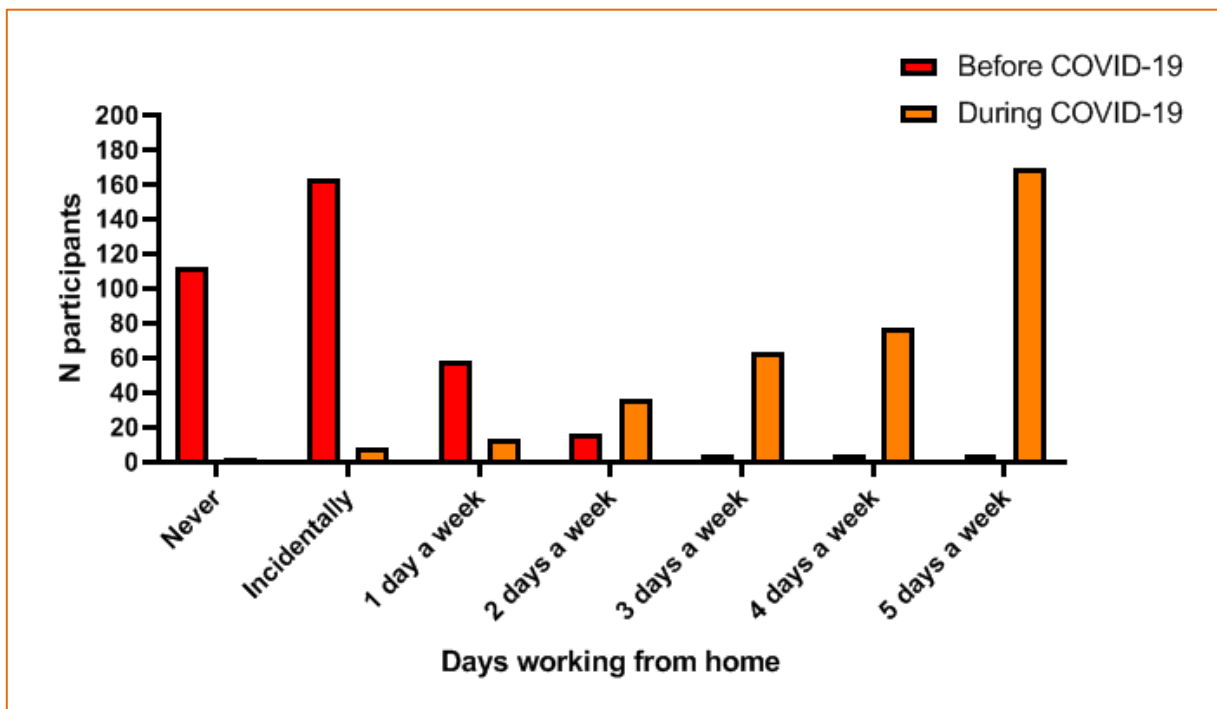


Figure 3. Results regarding the working from home frequency before and during the COVID-19 pandemic.

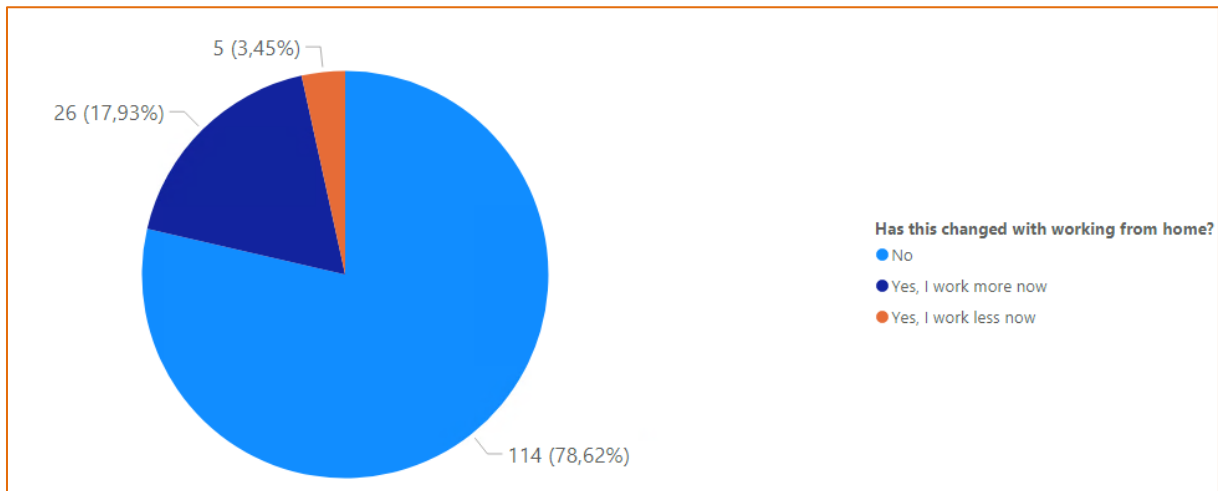


Figure 4. Results regarding the question on whether the working hours changed during the COVID-19 pandemic for Amsterdam UMC candidates.

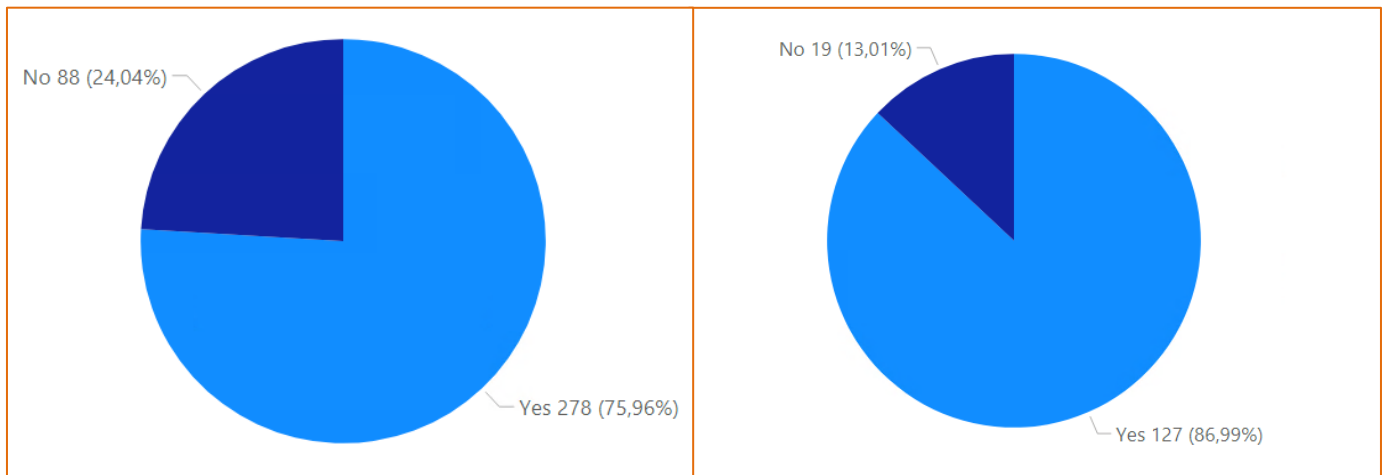


Figure 5. Results regarding whether PhD candidates are obligated to work from home (left panel for all PhD candidates and right panel for Amsterdam UMC PhD candidates).

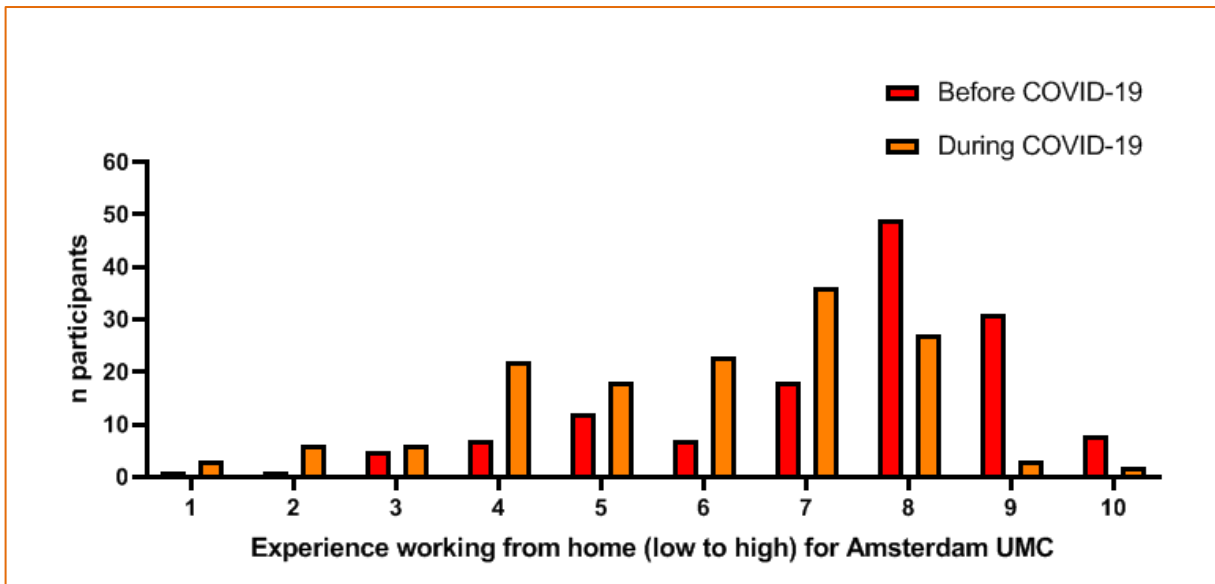


Figure 6. Results regarding PhD candidates' experience with working from home ranging from a negative experience to a positive experience.

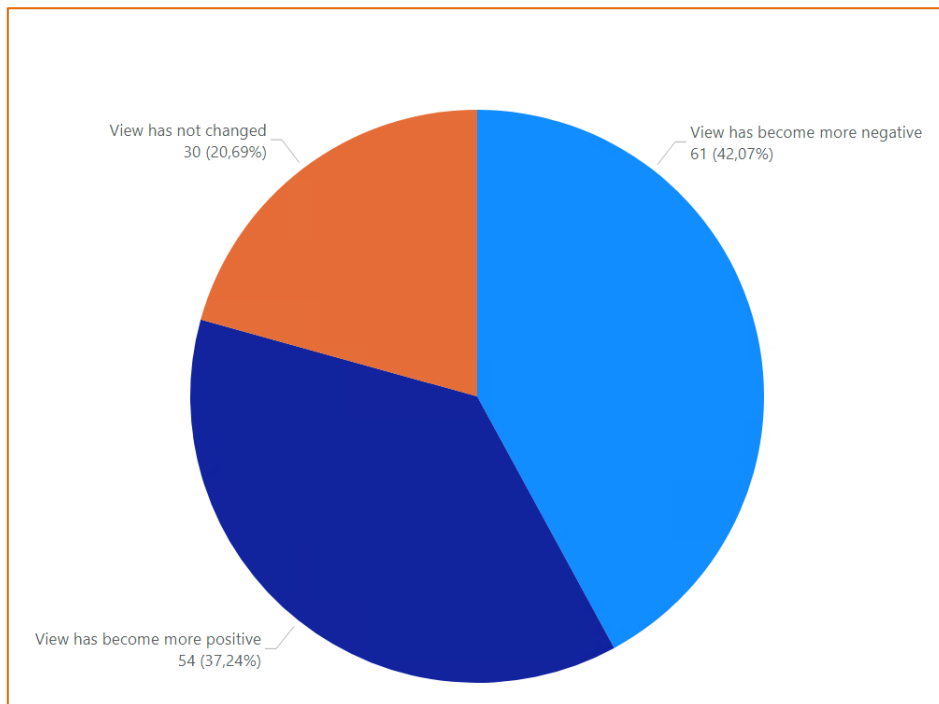


Figure 7. PhD candidates' experience regarding working from home before and during the COVID-19 pandemic.

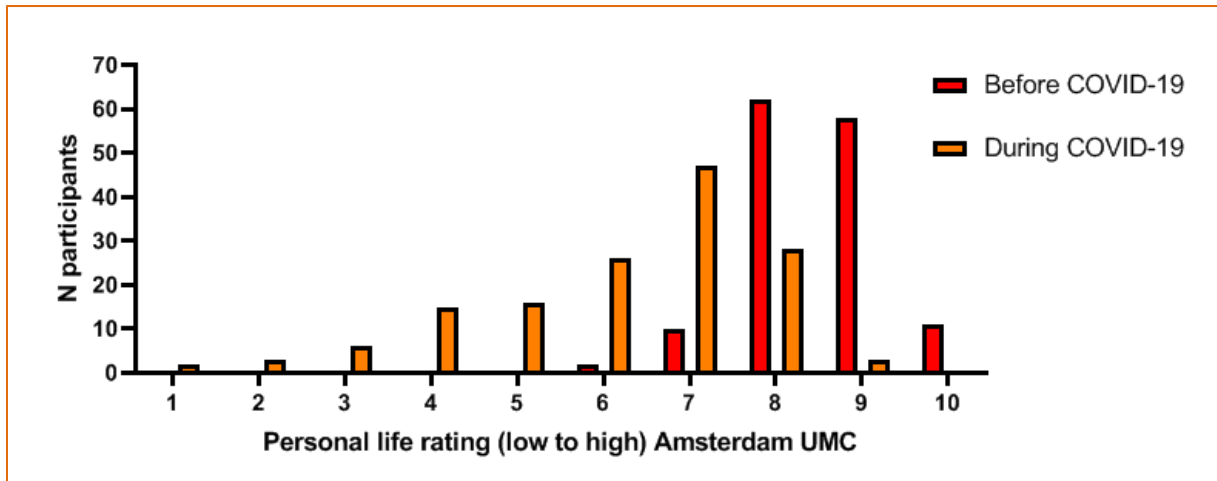


Figure 8. Results regarding how PhD candidates experience their personal life before and during Corona ranging from a negative experience to a positive experience.

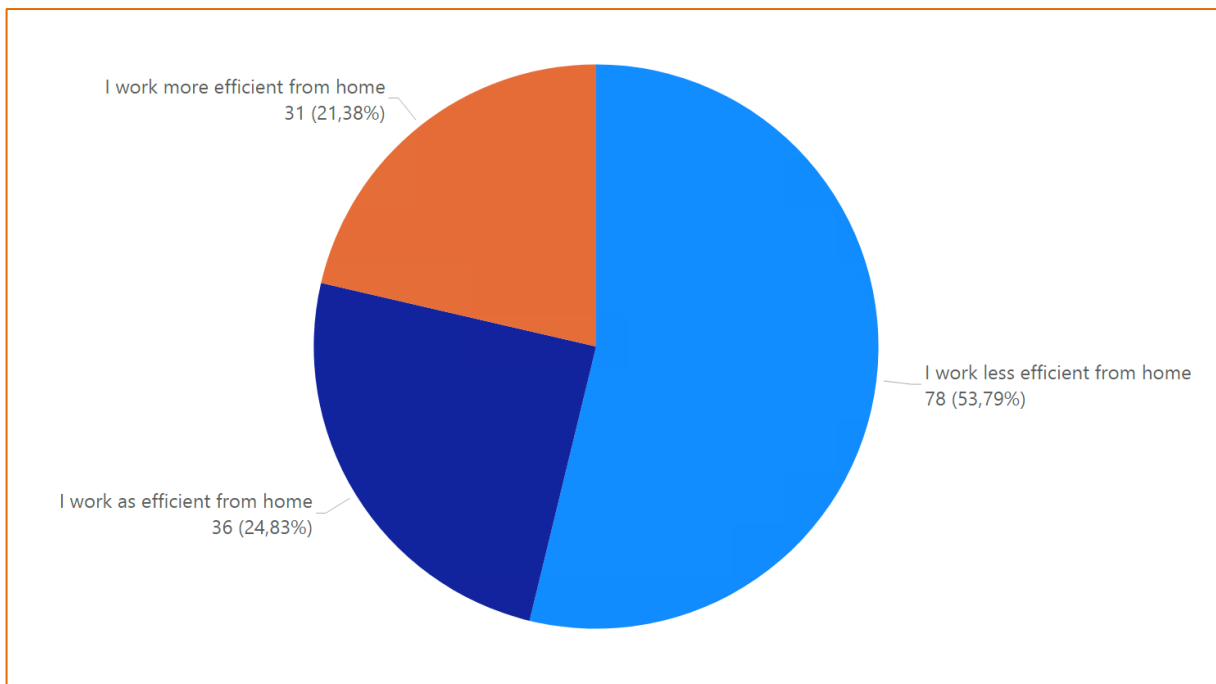


Figure 9. Results regarding the work efficiency PhD candidates' experience before compared to during the COVID-19 pandemic while working from home.

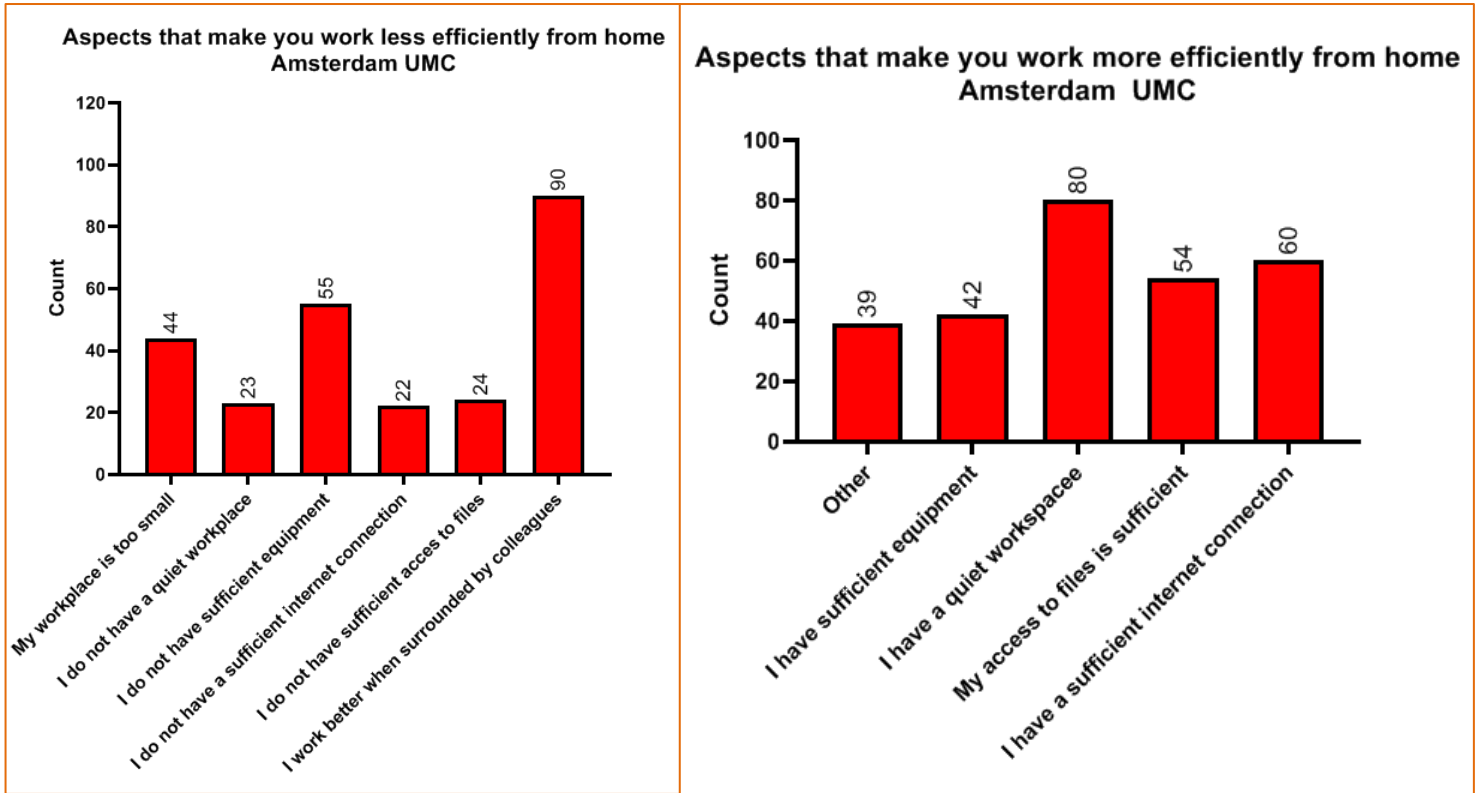


Figure 10. Results regarding aspects that make PhD candidates work less and more efficiently from home.

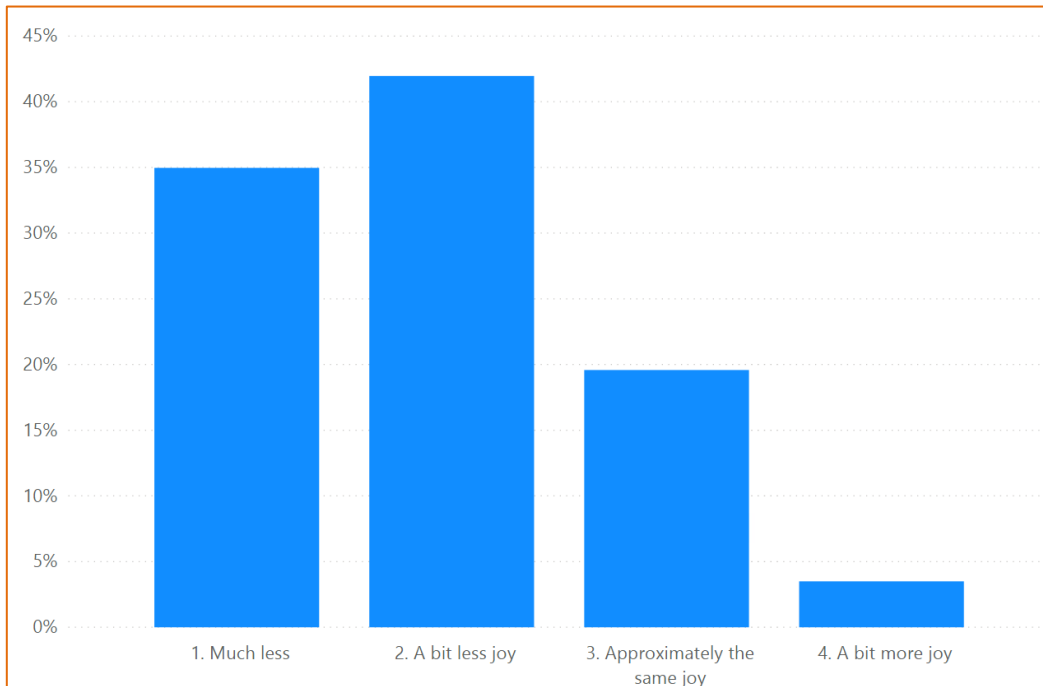


Figure 11. Results regarding the current amount of joy PhD candidates experience while working from home compared to before the pandemic.

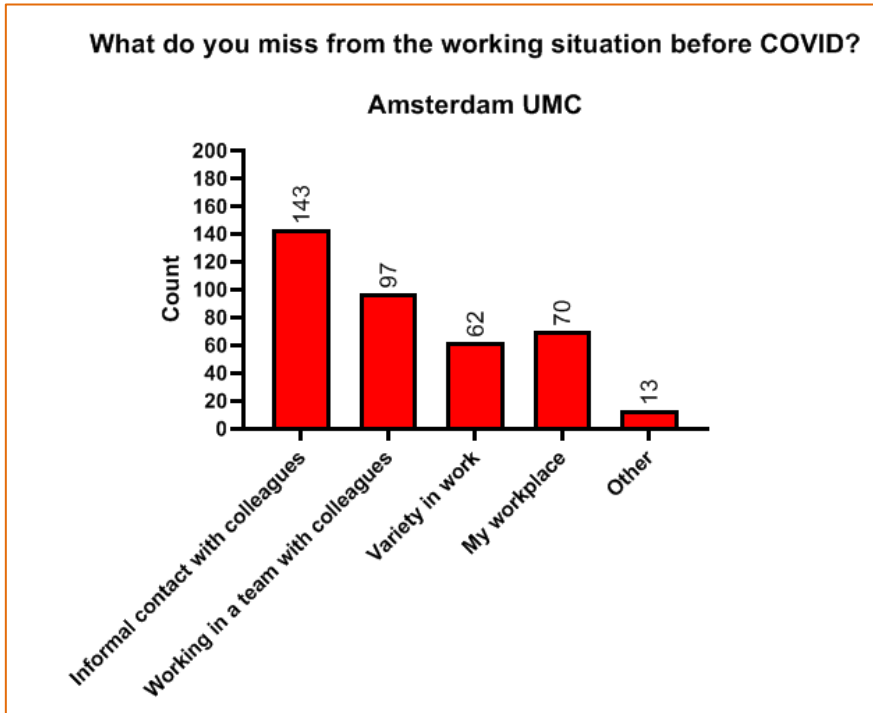


Figure 12. Results regarding the things PhD candidates miss from the working situation before COVID-19.

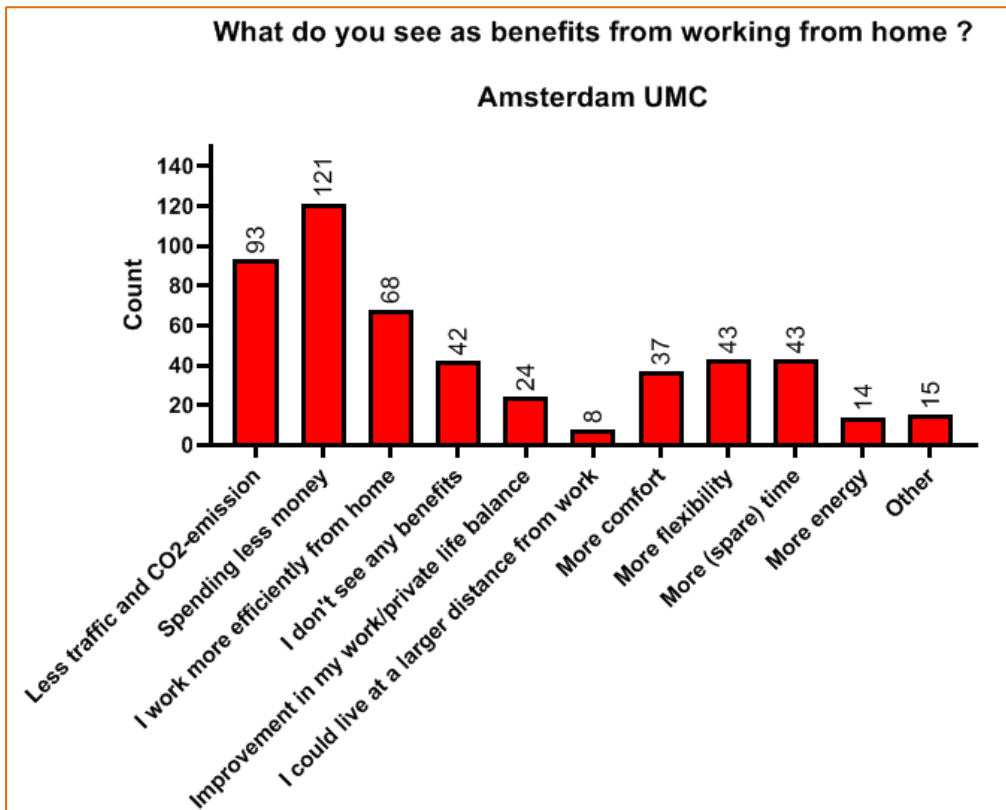


Figure 13. Results regarding the benefits that PhD candidates experience from working from home.

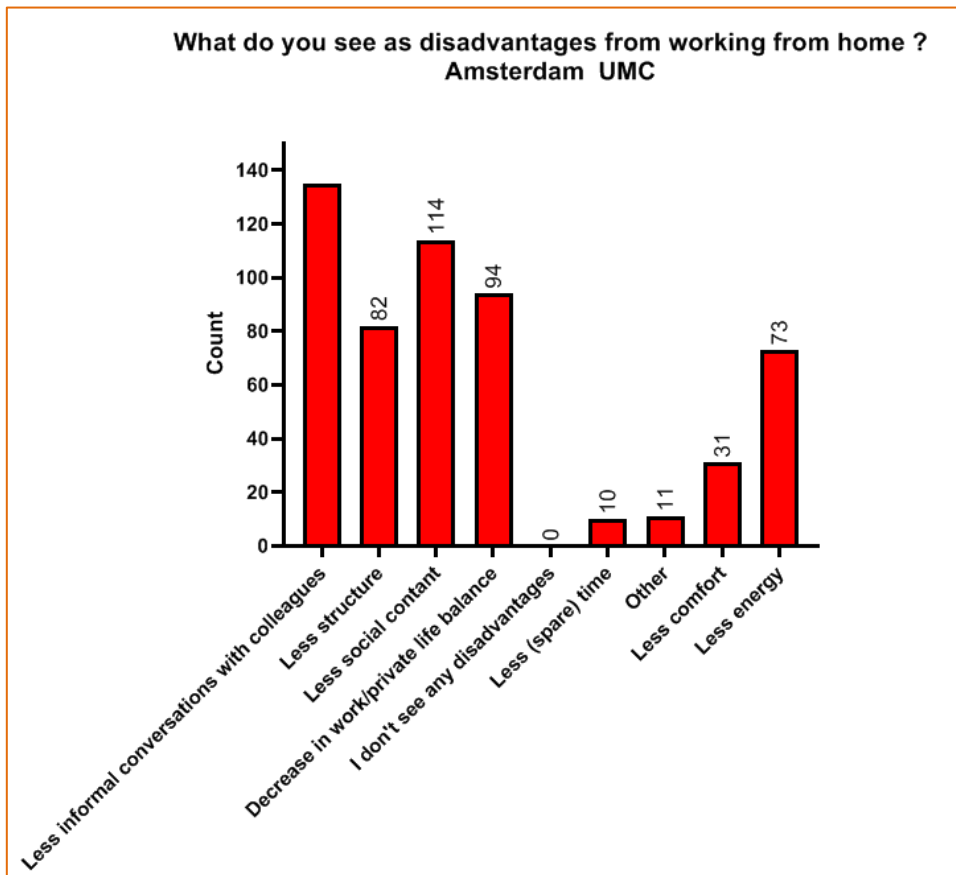


Figure 14. Results regarding disadvantages that PhD candidates experience from working from home.

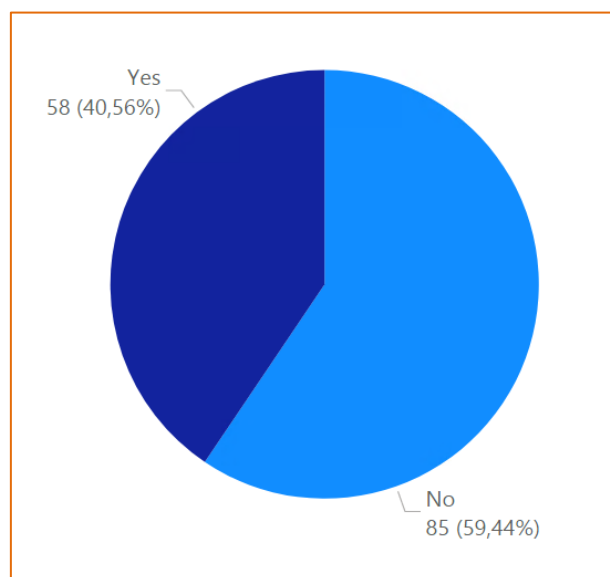


Figure 15. Results regarding if PhD candidates experience physical complaints since working from home.

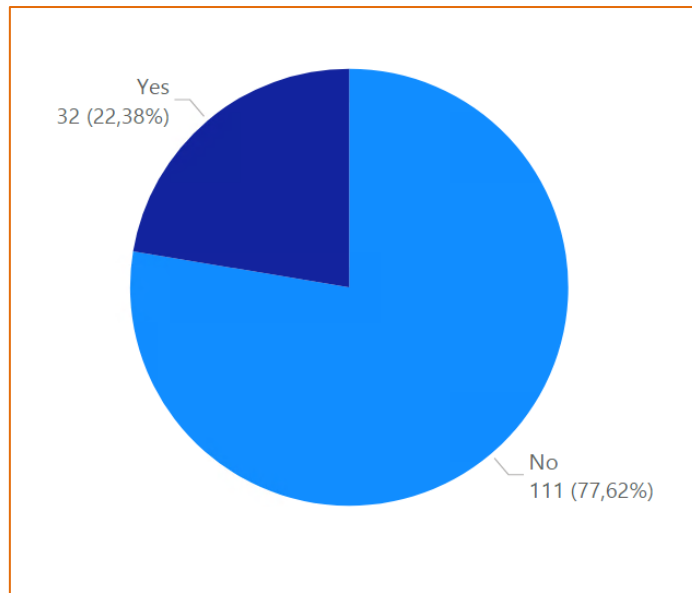


Figure 16. Results regarding whether PhD candidates borrowed equipment from the workplace to work from home.

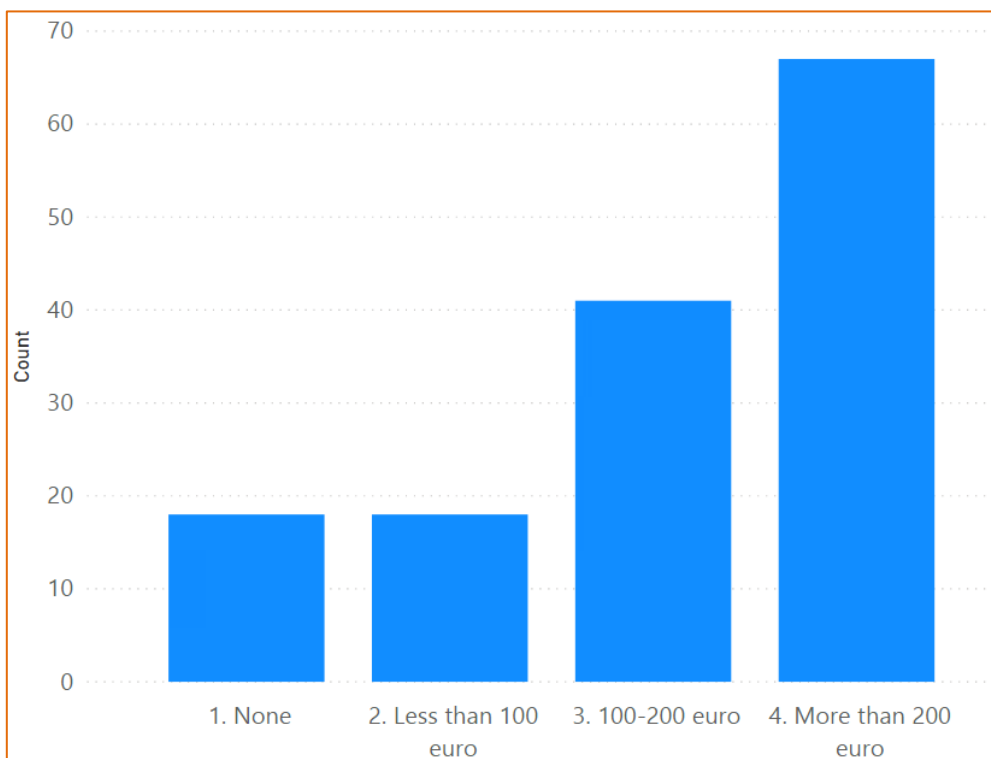


Figure 17. Results regarding the amount of money that PhD candidates spent on improving their workplace at home.

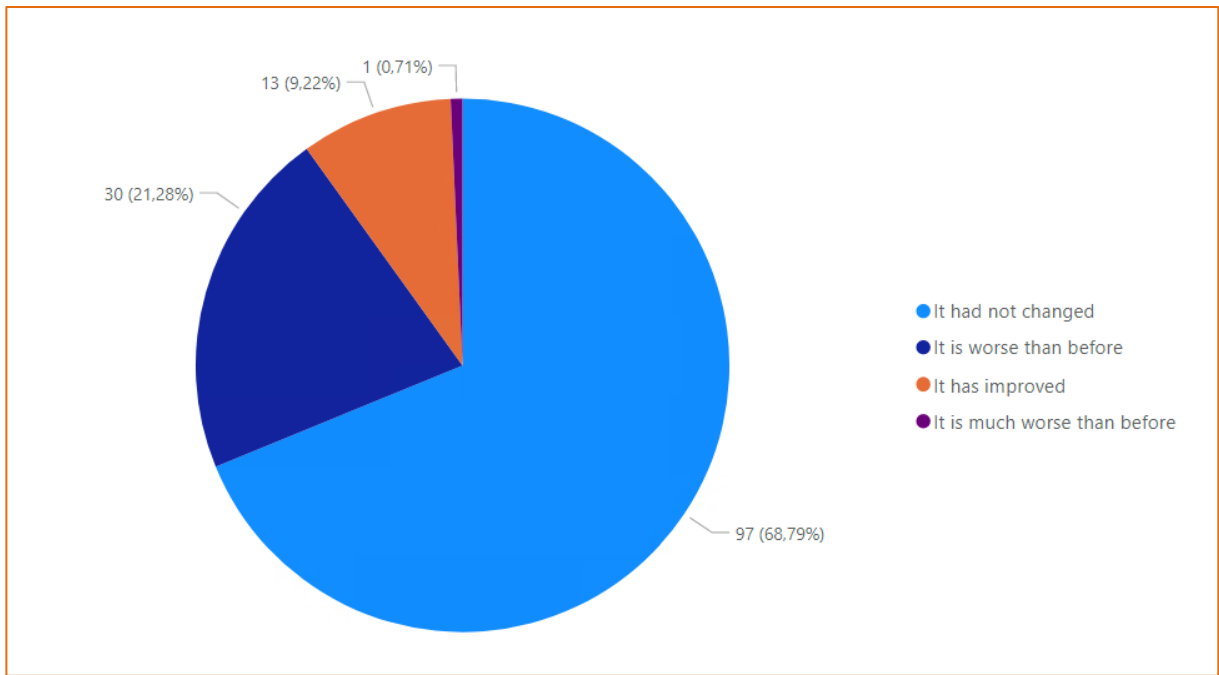


Figure 18. Results regarding the collaboration between PhD candidates and their supervisors compared to before COVID-19.

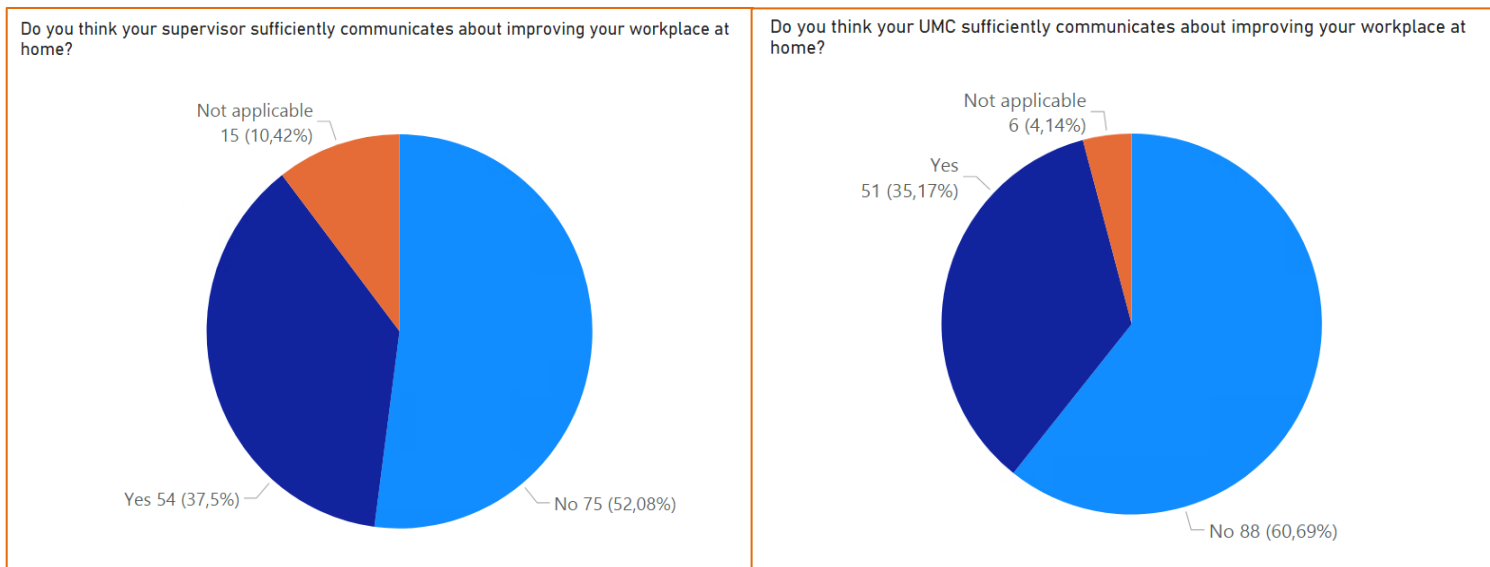


Figure 19. Results regarding whether PhD candidates think their supervisors and UMC communicate sufficiently about improving their workplace at home.

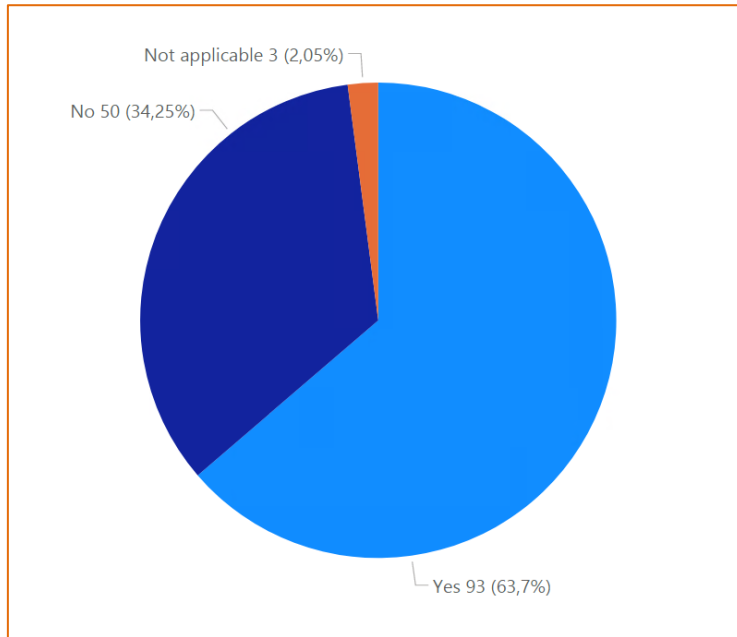


Figure 20. Results regarding whether PhD candidates would prefer to work more from home after COVID-19.