



Report

GSLs PhD survey 2023

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Separate appendices:

See appendix A for supplemental figures and tables.

1 INTRODUCTION

The GSLs PhD Survey is conducted annually and organized by the PhD Council of the Graduate School of Life Sciences (GSLs) at Utrecht University. In this survey, the PhD candidates from the GSLs (Faculty of Science, Faculty of Medicine, and Faculty of Veterinary Medicine) are given the opportunity to share their work experience and provide feedback.

This report contains the results of the GSLs PhD Survey 2023. This year (like last year), the GSLs PhD Council partnered with DUO Onderwijsonderzoek & Advies to conduct, collect and analyze the responses.

2 THE SURVEY'S OBJECTIVES

The PhD Council of the GSLs would like to achieve the following objectives with the GSLs PhD Survey:

1. To gain insight into how PhD candidates experience their **supervision**: are they satisfied with the frequency and quality of supervision?
 2. To gain insight into PhD candidates' perspective on **teaching activities**: how are the PhD candidates experiencing their teaching activities?
 3. To gain insight into the **PhD work environment and planning**: how are the PhD candidates experiencing the work environment and the time schedule of their PhD (and the help they receive with this)?
 4. To gain insight into **equality, diversity, and inclusion**: do PhD candidates experience their workplace as diverse and inclusive?
 5. To gain insight into **mental health and wellbeing**: do the PhD candidates feel happy and content with their work and work environment and do they know where to find support if needed?
 6. To gain insight into **workplace safety**: do the PhD candidates feel that the workplace is safe, and do they feel comfortable addressing any issues regarding inappropriate behaviour if these occur?
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Additionally, individual PhD programmes have added their specific questions that cover a variety of subjects of interest to their programme.

3 METHODOLOGY

Survey development

The survey was developed in collaboration with the PhD Council and consisted of seven sections: 1) supervision, 2) teaching, 3) PhD work environment and planning, 4) equality, diversity, and inclusion, 5) mental health, 6) workplace safety, and 7) PhD Programme-specific questions. The final survey consisted of 70 GSLs-wide questions and additional programme-specific questions (number differed per programme). The PhD candidates were permitted to skip any question they did not wish to answer.

Data collection

After receiving a link to the survey from DUO, the GSLs and GSLs PhD Council representatives made sure the PhD candidates from their respective programmes or institutes were invited to participate in the survey. The survey was administered online and spread in May 2023 among all PhD candidates of the GSLs. The PhD Council sent multiple reminders in order to make sure every PhD candidate had the chance to complete the survey. The survey was open from to the 22nd of May until the 8th of August 2023.

Response

452 PhD candidates completed at least 90% of the survey and formed the final sample of this report. PhD candidates who completed less than 90% of the survey were not included in the analyses. The response per institute is as follows:

<i>Table 1. In which institute do you work?</i>		
	<i>Percentage</i>	<i>n</i>
Faculty of Science (UU)	28%	126
Faculty of Veterinary Medicine (UU)	9%	42
University Medical Centre Utrecht (UMCU)	38%	170
Hubrecht Institute	6%	27
Princess Maxima Centre (PMC)	16%	72
RIVM	2%	7
Another institute	2%	8
Total	100%	452

The response per programme is as follows:

Table 2. Which PhD programme are you part of?		
	<i>Percentage</i>	<i>n</i>
Biomembranes	3%	15
Cancer, Stem Cells and Developmental Biology	17%	79
Cardiovascular Research	3%	15
Clinical and Experimental Neuroscience	4%	16
Clinical and Translational Oncology	7%	31
Computational Life Sciences	3%	15
Drug Innovation	11%	51
Environmental Biology	5%	23
Epidemiology	10%	45
Infection and Immunity	10%	46
Life Sciences Education Research	3%	15
Medical Imaging	6%	25
Molecular Life Sciences	5%	24
Regenerative Medicine	4%	20
Toxicology & Environmental Health	2%	11
I am not part of a programme	5%	21
Total	100%	452

Data analysis and presentation

The results of the survey are presented in graphs and tables in Sections 6.1 to 6.6. Some graphs are accompanied by tables showing the results split by certain characteristics. Results are not reported for groups smaller than $n = 5$. We also studied significant differences (with 95% confidence intervals) between PhD candidates of different institutes and different programmes. These statistically significant differences are calculated using the Standard Error (SE) and t -Test Statistic (t). If this statistic is greater than 1.96, the difference is considered statistically significant.

We calculated an average for the scaled questions, with a higher score indicating greater satisfaction/a more positive opinion on the matter.

4 SUMMARY AND RECOMMENDATIONS

4.1 Brief summary

The GSLs PhD Survey 2023 highlights several key areas that should be the focus of institutional and GSLs-wide initiatives over the coming period. The areas that stand out are as follows:

1. Contractual obligations and expectations of the PhD candidates should be clearly discussed with the supervisor(s) early on during the PhD trajectory. This includes teaching and supervision duties of the PhD candidate (if applicable); clinical duties of the PhD candidate (if applicable); working hours; taking holidays; and sick leave and parental leave.
2. Institutions need to create an open environment in which issues, including inappropriate behaviour and discrimination of all kinds, can be reported. For this, it is important that PhD candidates feel there will be no negative consequences for reporting the issue and that they feel that reporting the issue will result in meaningful action if they so wish. It should be possible to report these issues through multiple avenues depending, for example, on the severity and who is involved.
3. All issues reported relating to diversity and inclusion should be taken seriously and institutes should have protocols in place to address these issues as well as to accommodate for the needs of their students, including their physical or mental disabilities.
4. Related to this, it is essential that all PhD candidates feel welcome and included in their institutes regardless of gender, sexuality, race, religion, age, disability, ethnicity, and economic status. Indeed, hiring practices need to be made transparent to attract diverse talent and these PhD candidates need to feel welcomed (not merely tolerated) once here. For example, as the PhD programmes offered by the GSLs are international and thus aim to attract international talent, it is important that non-Dutch-speaking PhD candidates are included, and that all communication is done in English (and in Dutch).
5. Many PhD candidates encounter mental health-related challenges during their PhD, for example extreme stress due to high workloads. As such, it is crucial that the institutes and GSLs provides ample support for PhD candidates to get the help they need.

Upon considering the full report, the top 3 recommendations of the GSLs PhD Council to the GSLs, the faculties and the institutes are:

- 1) **We recommend** that institutes and the GSLs (continue to) prioritize a healthy work-life balance. Early planning between supervisors and candidates is crucial to avoid thesis completion during unemployment and minimize periods of work overload.
- 2) **We recommend** implementing yearly meetings with confidential advisors for early issue recognition, de-escalation, and mental health support. Monitoring premature PhD-exits and ensuring that supervisors provide a safe space for mental-health discussions are crucial.
- 3) **We recommend** that all institutes and PhD programmes should evaluate where discrimination and inappropriate behaviour may occur and how that can be prevented, especially at institutes that regularly score worse in these surveys. An active approach is needed to address this topic.

With these recommendations we hope to highlight the need for continued development at all levels (from supervisor-PhD relationships to institute- and GSLs-wide initiatives) and look forward to our continued communication to effectuate positive change.

4.2 In-depth summary

Background characteristics

Similar to last year, 9% of PhDs reported to have become or will become parents. The majority of those has a right to parental leave, but nearly a third could not fully make use of it. **We continue to recommend** that institutes ensure universal parental leave. Notably, the lack of money remains the most reported issue for obtaining a paid extension for parental leave. **We emphasize** the need for institutes to better inform both employees and employers about parental leave paid by the UWV (Uitvoeringsinstituut Werknemersverzekeringen), as the results haven't changed since the last report

20% of PhDs hold medical degrees. 21% say clinical duties impede the progress of their research and 16% perform non-contractual clinical tasks. **We recommend** that research and clinical duties should be balanced well and this should be discussed early on and regularly between the PhD candidates and their supervisor(s).

Supervision

Among PhD candidates, 65% receive daily supervision, and 75% express satisfaction with their supervisory team. PhDs are most satisfied with the 'scientific contribution' (7.9) and least satisfied with the 'help with planning' (6.6) by their supervisor(s). Communication between the supervisory team is rated 'good' by 66% of PhDs, with 12% reporting dissatisfaction. **We recommend** candidates and supervisors establish clear expectations, addressing areas of dissatisfaction early on. The focus of these discussions should be on planning assistance, feedback exchange, and meeting frequency. **We recommend** that the meeting frequency and communication within the supervisory team should be part of the yearly evaluation of the PhD.

Teaching activities

The survey results on teaching activities did not show any significant changes to last year's report, except for a notable increase from 20% to 30% in PhD candidates reporting teaching duties being part of their contracts. Overall, 73% engage in teaching or supervising, with 63% as supervisors, 29% as teachers, and 18% as teaching assistants. Concerningly, 31% report that they perform non-contractual teaching, and 10% report a higher than agreed upon teaching load. While 72% feel supported on their teaching duties by their supervisory team, only 53% feel adequately prepared, and 18% feel unprepared (a slight improvement from last year's 21%). Worryingly, 19% feel teaching hinders their PhD progression, up from 16% last year. Uncertainty about teaching obligations in contracts decreased from 24% to 18%. **We still recommend that** PhD students and supervisors get familiar with what is contractually required from the PhD student. Supervisors should inform their PhD candidates that they are required to follow training when they have teaching tasks (compulsory for all UU PhD candidates).

PhD work environment and planning

A significant majority (78%) of PhD candidates express comfort discussing non-academic career paths. Regarding work norms, 55% note the acceptance of weekend work in their department, suggesting that PhD candidates are somewhat expected to work during the weekends.

77% of PhD candidates feel free to take holidays, but 11% feel constrained by supervisors. Only 25% believe they'll finish their PhD within contract time. Strikingly, 44% of PhDs consider it normal to complete their thesis outside of their contract period. Despite a 2% decrease from last year, 40% of the PhD candidates state that people in their department often finish their thesis in unemployment. **We recommend** that faculties and the GSLs (continue to) prioritize healthy work-life balance. Early planning between supervisors and candidates is crucial to avoid thesis completion during unemployment. Taking time-off should be stimulated instead of constrained by the supervisor(s). **We recommend** that supervisor(s) and PhD candidates discuss and plan thesis writing early on to avoid finishing the thesis outside of their contract, or worse, during unemployment. We ask PhDs with a non-acceptable workload to discuss this with their supervisors or a confidential advisor if they don't feel comfortable directly speaking with their supervisors.

Furthermore, both PhD candidates and supervisor(s) should make sure that the annual PhD progress meeting takes place (using the GSLs form).

Equality, Diversity, and Inclusion

Overall, 83% of PhDs feel welcome and included. Only 75% agree that their institute fosters free and open expression and only 64% believe their institute provides equal opportunities. Concerningly, 13% feel opportunities aren't equal, up from 9% last year. Non-Dutch employee support remains lacking, especially in medical care (mainly Dutch speaking employees) and research combined institutes like the Princess Máxima Center and UMCU.

Disturbingly, 9% (up from 6% last year) report being victims of discrimination, and 15% report to have witnessed it. Especially the Hubrecht institute (19% victims, 33% witnessed), and Princess Máxima Center (13% victims, 17% witnessed) have consistently stood out. **We recommend that** all institutes and PhD programmes should evaluate where discrimination may occur and how discrimination can be prevented, especially at institutes that regularly score worse. An active approach is needed to address this topic. We urge all programme coordinators and respective members of the institute to open up a dialogue about this topic with their PhDs. It is also important to include non-Dutch PhDs in the conversation and learn from them how to improve support for non-Dutch colleagues.

Mental health and personal well-being

Similar to last year, only 64% of PhD candidates find their workload acceptable. 30% report to have faced PhD-related mental health issues, an increase of 7% from last year. Facing PhD-related issues, the majority turn to their peers for help and about half turn to their promoters. Unfortunately, 17% feel uncomfortable seeking offered services to help with PhD-related issues, up 5% from last year. 28% of

respondents find that the GSLs addresses mental health adequately, 47% find it partially well addressed, and 16% find it inadequately addressed.

Alarming, 37% of PhDs worry about finishing within their contract time, and 6% consider stopping their PhD monthly, while 15% contemplate it yearly. Burnout rates, measured by UBOS-A, reveal 46% with high mental distance, 63% with high emotional exhaustion, and 83% with low feelings of competence. 11% of respondents are experiencing high stress based on the perceived stress scale.

We recommend implementing yearly meetings with confidential advisors for early issue recognition, de-escalation, and mental health support. Monitoring premature PhD exits and ensuring supervisors provide a safe space for mental health discussions are crucial. **We recommend** that the GSLs continues efforts to address mental health openly and actively, including newsletters, events, and courses.

Last year, we recommended that 2 FTE additional PhD psychologists be appointed to be able to timely and effectively counsel and/or treat PhDs seeking help. As of now, another FTE PhD psychologist was employed, but it is unclear whether this appointed position is permanent. Therefore our previous **recommendation** of 2 FTE additional PhD psychologists still stands.

A safe workplace

While 89% of PhD candidates feel their work environment is (partially) safe, 10% do not. In the past year, 10% reported to have experienced inappropriate behaviour from supervisors (up from 8%) and 17% from colleagues (up from 15%). Alarming, 36% report monthly incidents of inappropriate behaviour. Of those who reported, only 48% tried discussing or reporting it, with 78% approaching their supervisor. However, satisfaction with the follow-up is low, with 35% (very) dissatisfied and 27% feeling neutral. Reasons for not reporting include doubts about improvement and fears of consequences for their work environment and future job prospects, echoing last year's concerns.

We still recommend that 1) All institutes install a 'taskforce' that measures the feeling of social safety, takes action to improve this, and monitors if the actions have an effect. The initiative of Hubrecht shows that there is improvement, although slow, and we encourage other institutes to do the same. 2) All institutes must offer and pay attention to different possibilities to report inappropriate behaviour. The majority of candidates still does not feel compelled to report such instances. It must become safer for candidates to report. 3) Dissatisfaction on how reported situations were handled is high. While reporting inappropriate behaviour is the first step, it is important that it is followed up by actions. Otherwise the current unsafe working environments will not change.

5 BACKGROUND CHARACTERISTICS

The demographics of the respondents are shown in the appendix A (Table S1 to S14). 65% of respondents identified as female and 35% as male. 67% is Dutch. Half (50%) of the PhDs that needed to relocate for their PhD, relocated within the Netherlands (10%) or from within the EU (including Czech Republic, Iceland, UK) (40%). Most PhDs obtained their (most recent) Master's degree (74%) or Bachelor's degree (67%) at the UU or another Dutch university.

The majority (81%) of respondents started their PhD between 2019 - 2022. 78% of the PhDs had their initial PhD contract (i.e., excluding extensions and assuming that PhDs got a GO after the first year) of 4 years and about half (49%) of the PhDs got an extension of 1 to 5 months. 20% of the PhDs has a Medical Doctor or Doctor of Veterinary Medicine degree of which 21% indicate that their clinical duties hinder the progress of their research and 16% have to take on clinical duties even though they are not part of their contract. 9% of PhDs became or will become a parent during their PhD. 82% of the parents had the right to paternity/maternity leave, however, 28% did not or could not (fully) use it.

6 RESULTS

6.1 Supervision

The first section of the survey focused on the supervision that the PhD candidates receive. The following introduction was used for the section of the survey concerning supervision:

Here we will ask some questions about the supervision you receive from your supervisory team: your supervisors (in Dutch: promotoren) and your co-supervisors (in Dutch: co-promotoren). One of them should be your daily supervisor or your daily supervisor is an additional person, e.g. postdoc.

Table 3 shows the distribution of the number of official supervisors and co-supervisors. About half of the PhD candidates (49%) have one or two official (co-)supervisors, the other half has three or more.

Table 3. How many official supervisors (promotoren) and co-supervisors (co-promotoren) do you have?

	Percentage	<i>n</i>
1	4%	16
2	45%	205
3	32%	146
4	18%	81
More than 4	1%	4
Total	100%	452

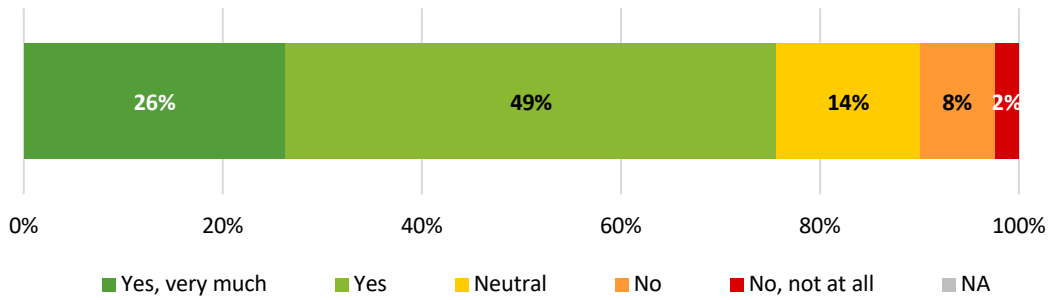
For almost two thirds of the PhD candidates (65%) their co-promotor is their daily supervisor.

Table 4. Who is your daily supervisor (i.e. first contact to discuss your work and is available within a reasonable timeframe)?

	Percentage	<i>n</i>
Co-promoter	65%	295
Promoter	22%	101
Postdoc that is not officially a co-promoter	4%	18
I don't have a daily supervisor	6%	26
Other	3%	12
Total	100%	452

We asked if the PhD candidates are content with the supervision of their supervisory team (Figure 1). 75% of PhD candidates are content or very content with the supervision of their supervisory team. 10% of PhDs is not (at all) content with the supervision of their supervisory team.

Figure 1. Are you content with the supervision of your supervisory team?



Candidates from the University Medical Centre Utrecht (UMCU) were overall more often content with their supervisors (Table S15) (UMCU: 82% content, total: 75% content). While candidates from the Hubrecht Institute and the Princess Maxima Center (PMC) were overall less content with their supervisors (Table S15) (Hubrecht Institute: 19% not content, PMC: 15% not content, total: 10%).

Candidates who were the most content with their supervision are from the PhD programmes Computational Life Sciences (100%), Life Sciences Education Research (93%), Medical Imaging (92%) and Biomembranes (87%), with the indicated percentage of candidates answering 'Yes, very much' and 'Yes'. Candidates from Cancer, Stem Cells and Developmental Biology (16%), Cardiovascular Research (13%), Molecular Life Sciences (25%), and Regenerative Medicine (30%) were the least content with their supervision, with the indicated percentage of candidates answering 'No, not at all' and 'No'. See table S16 for the exact overview per programme.

The graph below (Figure 2) shows the rating of the quality of the supervision the supervisory team on a scale from 1 (very bad) to 10 (very good) for a range of aspects. We also show the mean rating of all of these aspects (Table 5). PhD candidates rate the aspect 'scientific contribution' highest (mean = 7.9). 'help with planning' gets the lowest rating (mean = 6.6).

Figure 2. Please rate the quality of the supervision of your supervisory team for the following aspects on a scale from 1 (very bad) to 10 (very good).

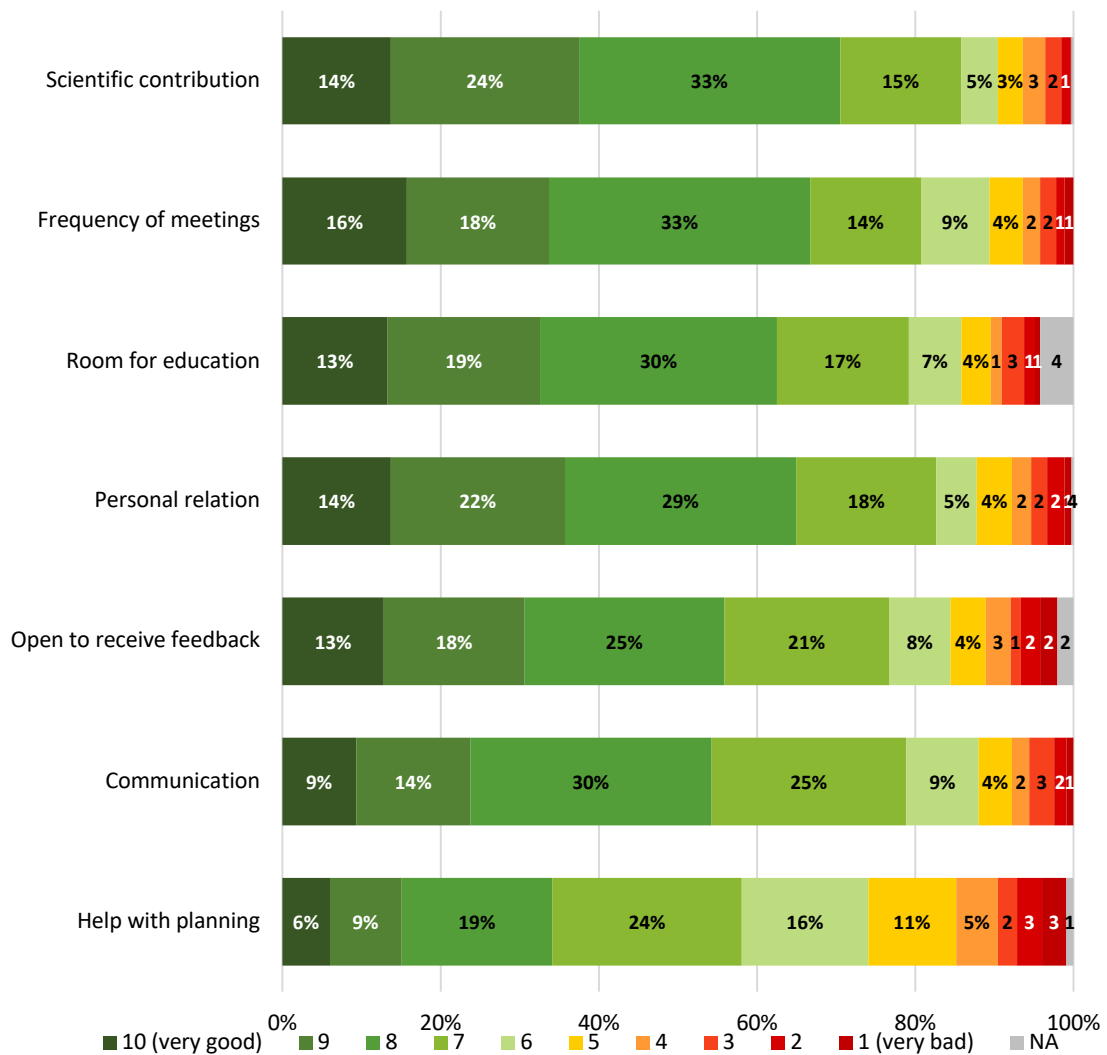


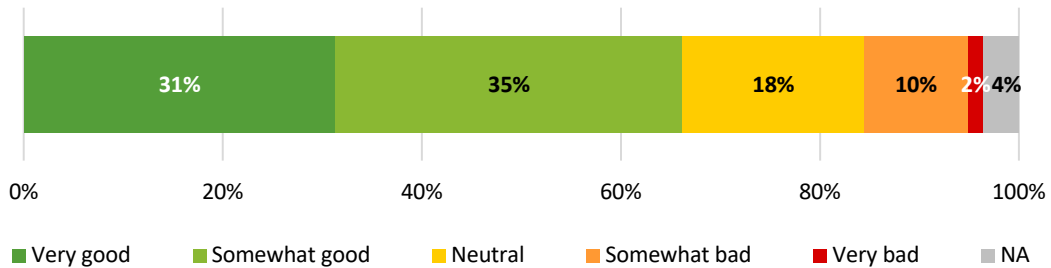
Table 5. Please rate the quality of the supervision of your supervisory team for the following aspects on a scale from 1 (very bad) to 10 (very good).

Mean and Standard Deviation for supervisory team

	<i>Mean</i>	<i>Standard Deviation</i>
Scientific contribution	7.9	1.7
Frequency of meetings	7.7	1.8
Room for education	7.7	1.8
Personal relation	7.7	1.9
Open to receive feedback	7.4	2.0
Communication	7.4	1.8
Help with planning	6.6	2.1

Two-thirds (66%) of PhD candidates rate the communication between the members of their supervisory team very good (31%) or somewhat good (35%) (Figure 3). 12% rate the communication somewhat bad (10%) or very bad (2%). The communication between members of the supervisory team does not seem to depend on the number of members of the supervisory team (see Table S17).

Figure 3. How do you rate the communication between the members of your supervisory team?



6.2 Teaching

This section of the survey concerns the teaching activities of the PhD candidates. First, we asked if the candidates are currently teaching, have taught any courses, or supervised any students during their PhD project. 73% of candidates have done teaching or supervising, of which the majority (63%) have supervised bachelor/master students, 29% have taught bachelor/master courses, and 18% have had a role as a teaching assistant.

There is a significant difference between institutes in how many PhD candidates have had a teaching role. 19% of candidates from the Faculty of Science (UU) reported to **not** have taught anything, while this percentage is 48% for candidates from the Hubrecht institute (Table S18).

Next, we assessed how many candidates have teaching (including supervising) as a function within their working contract (Table 6). 30% of candidates report teaching to be included in their contract, of which 24% have already performed teaching duties. 52% do not have it in their contract, and 18% report that they do not know. Of candidates that do **not** report it as part of their contract, 31% still have teaching responsibilities. Of candidates who are contractually obligated to teach, 6% report to have taught more hours than stated in their contract and 3% report to teach less hours. We find no significant differences in answers when split by gender (see Table S19).

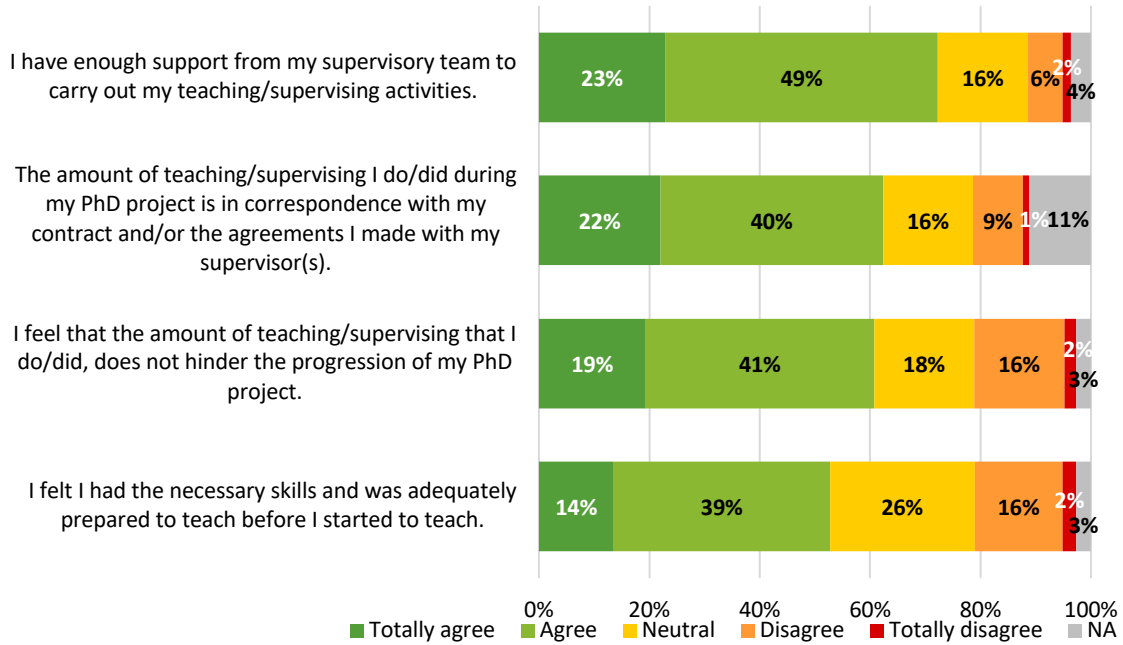
Table 6. Is teaching (including supervising) part of your contract?	
	<i>All</i>
Yes, but I teach less hours than stated in my contract	3% (12)
Yes, I teach the number of hours as stated in my contract	15% (69)
Yes, but I teach more hours than stated in my contract	6% (27)
Yes, but I have not taught yet	6% (28)
No, and I don't teach	21% (94)
No, but I do teach	31% (139)
I don't know	18% (83)
Total	100% (452)

For PhD candidates that were involved in teaching ($n = 332$), we asked whether different teaching activities were optional or compulsory (Figure S1). More than half of the different types of teaching activities are reported to be optional (52%-63%).

The PhD candidates who have done teaching and/or supervising were asked to evaluate a number of statements regarding their teaching activities (Figure 4). 72% of candidates reported to have enough support by their supervisory team to carry out teaching/supervising activities. While 18% of PhD candidates report that teaching hinders their PhD progression, 61% report that they feel the amount of teaching does not hinder the progression of their PhD. 62% find their teaching hours to be in correspondence with the agreements they have made with their supervisor. 53% felt adequately prepared for teaching, whereas 18% did not feel prepared to teach. Summarising these results, a relatively large proportion of PhD candidates disagree with these positively framed statements about their teaching tasks.

Figure 4. Please indicate for the following statements whether you agree or disagree.

For PhD candidates who have done any teaching activities (n=332)



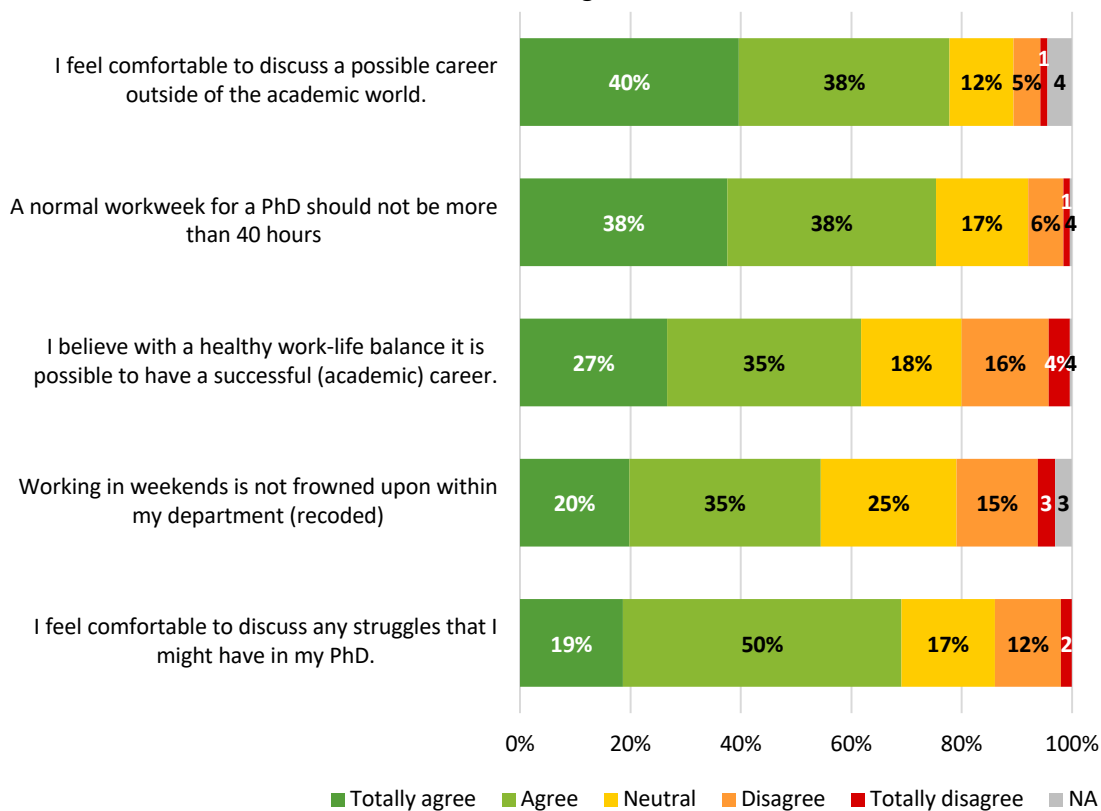
6.3 PhD work environment and planning

The next section of the survey concerned PhD work environment and planning and included several statements. First, we asked if the PhDs are aware of the section in the PhD Guide that addresses the attitude and behaviour the GSLs expects from PhD students and their supervisors to ensure a smooth working relationship. 51% is aware of this and 92% indicates that there is nothing limiting their or their supervisor's ability to act according to these principles specified in the GSLs PhD guide.

The majority of PhD candidates (78%) feel comfortable to discuss a possible career outside of the academic world (Figure 5). 20% of respondents do not believe that a healthy work-life balance is possible to maintain while having a successful (academic) career (in the previous survey 2021/2022 this percentage was 22%). The majority of PhDs (76%) thinks that a normal workweek should not exceed 40 hours.

55% of respondents agreed with the statement 'Working in weekends is not frowned upon within my department', while 18% disagreed and 25% were neutral, suggesting that working in weekends is overall quite common. We found that more respondents from the Hubrecht agreed with this statement (74%), and the respondents from University Medical Centre Utrecht (UMCU) agreed the least (49%) (Table S20). It is worrisome that 14% of PhDs do not feel comfortable to discuss struggles they have during their PhD.

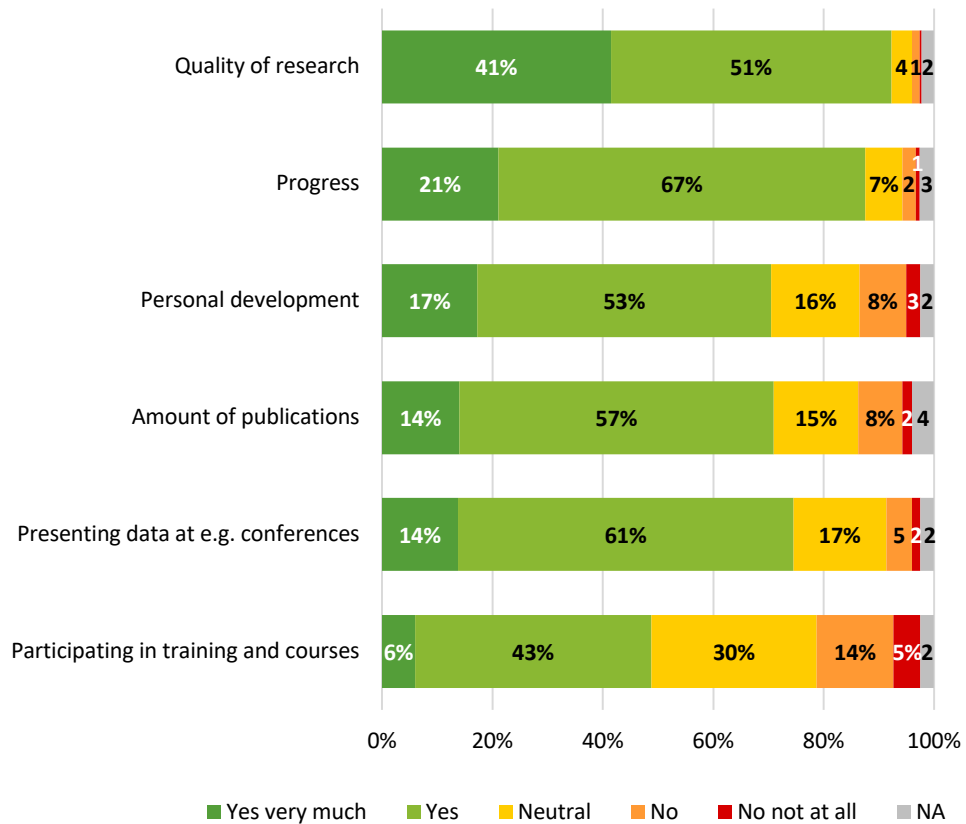
Figure 5. Please indicate for the following statements whether you agree or disagree.



NB: the original statement 'Working in weekends is frowned upon within my department' was recoded to make a comparison with the other (positively formulated) statements easier.

PhD candidates were also asked to indicate what their supervisor(s) take into account when assessing their PhD (Figure 6). Respondents indicated that most supervisors do take into account the quality of research (92%) and progress (88%) when assessing a PhD. Participating in training and courses is taken the least into account by supervisors (19%). This perhaps shows that there is more emphasis placed on research, publications, and presentation of data, which may not be fully in line with the goals recommended in the PhD competence model, where more emphasis is placed on personal development, communication, leadership management, personal effectiveness. See table S21 in appendix A for this response split by starting year of PhD.

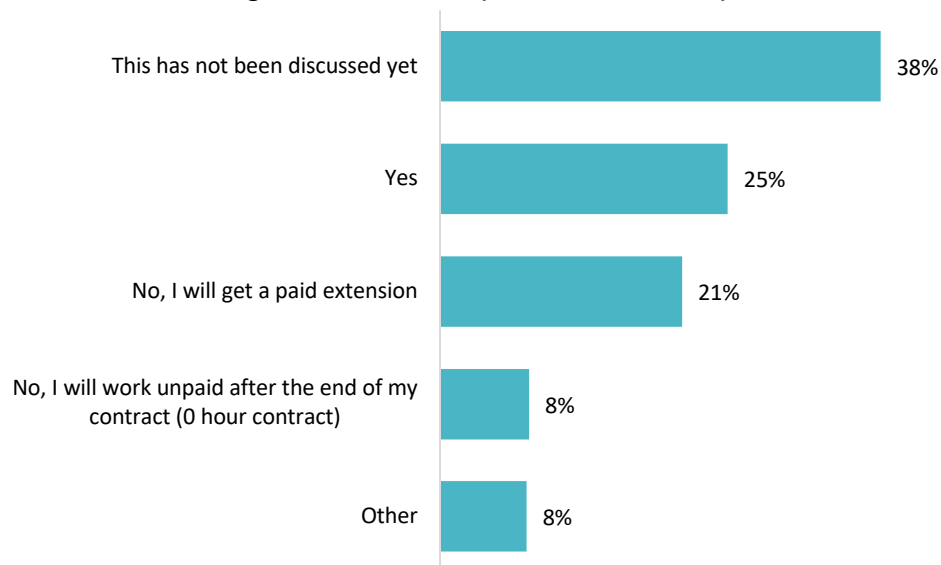
Figure 6. When assessing your PhD, do(es) your supervisor(s) take into account:



Regarding completion of the PhD project, most respondents (38%) have not yet discussed if they will finish their PhD before the end of the initial contract (Figure 7, in the previous survey 2021/2022 this percentage was 44%). Almost a quarter (21%) will get a paid extension (in the previous survey 2021/2022 this percentage was 23%). Most of these respondents started their PhD in 2019 or earlier. Only 25% of the PhDs think they will finish in time (in the previous survey 2021/2022 this percentage was 23%), of which the majority started in 2020 or later (Table S22a).

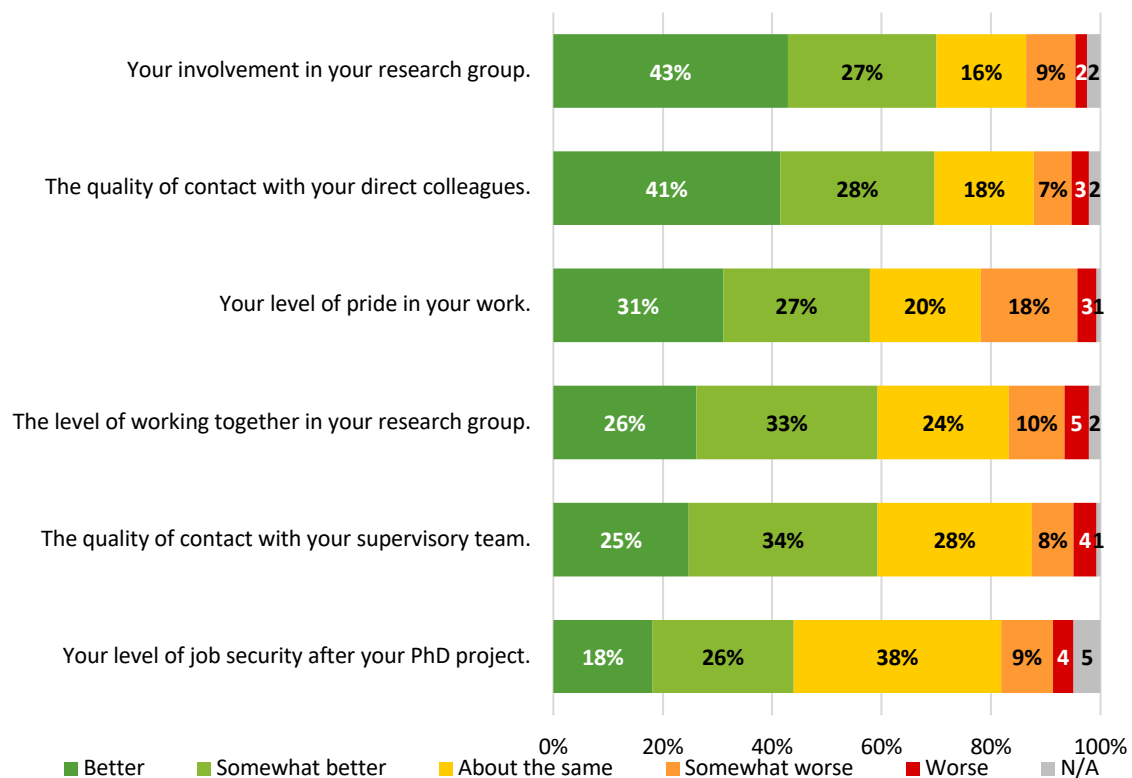
See table S22b in appendix A for this response split by starting year of PhD.

Figure 7. Do you think you will finish your PhD before the end of your original/initial contract (finish = submit thesis)?



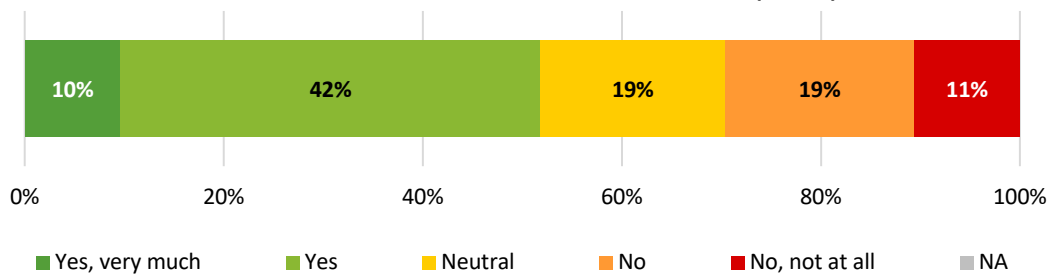
We asked the PhD candidates who started in 2021 or earlier ($n = 287$) to state how some aspects of their work experience have changed from the start of their PhD up to present-day (Figure 8). The involvement in the research group and the quality of contact with direct colleagues has most often improved (respectively 70% and 69% state this is now (somewhat) better). The level of pride in their work has most often gotten worse (21% state this is now (somewhat) worse, in the previous survey 2021/2022 this percentage was 17%). This data has also been stratified per starting year of PhD in the appendix, see Table S23.

Figure 8. Please state how each of the following aspects of your work experience has changed from the start of your PhD up to present-day. For PhD candidates who started in 2021 or earlier (n=287)



About half (52%) of the PhD candidates who started in 2022 or earlier ($n = 405$) felt like they had enough support during the start of their PhD (Figure 9 and Table S24). Almost a third (30%) feel like they did not have enough support (in the previous survey 2021/2022 this percentage was also 30%). Of students who started in 2022, more people **did** feel that they had enough support (compared to those starting in earlier years), suggesting that this could be improving (2019: 42% not (at all) enough support, 2020: 28%, 2021: 37%, 2022: 16%). We will continue to monitor this.

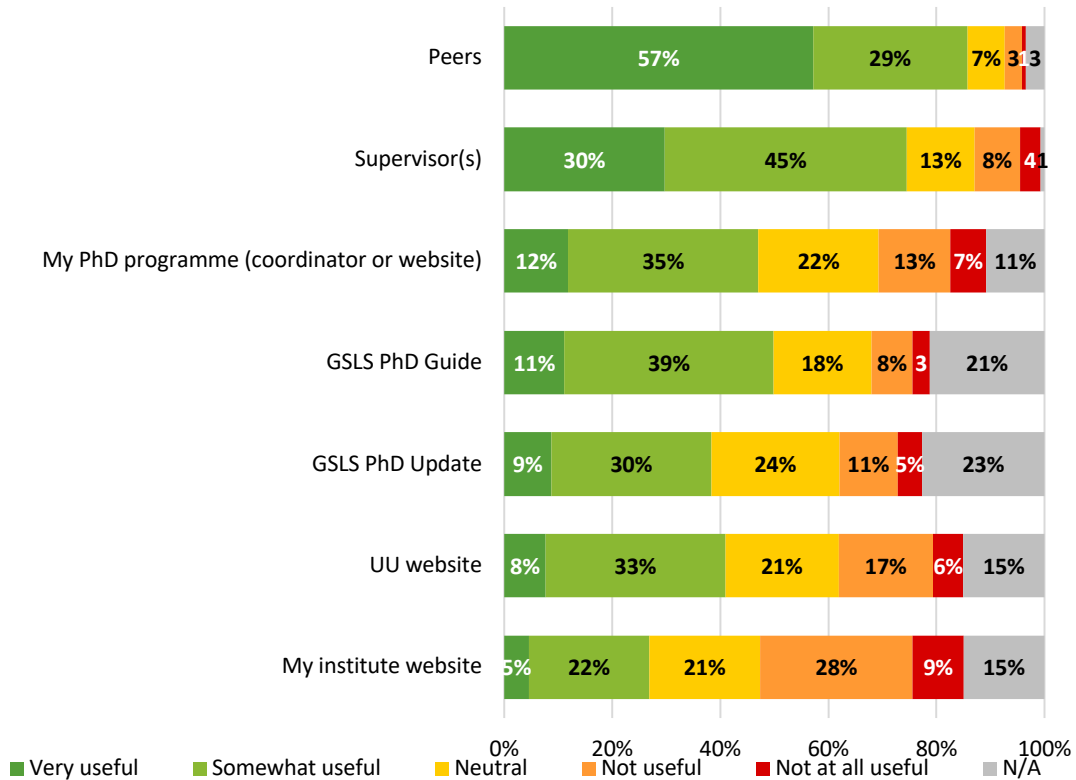
**Figure 9. Did you feel that you had enough support during the start of your PhD?
For PhD candidates who started in 2022 or earlier (n=405)**



Subsequently we asked how useful certain sources were during the start of their PhD. Peers are considered to be (very) useful (86%), whereas the institute website is considered least useful (37%) (Figure 10). The sources 'my PhD programme (coordinator or website)' and 'My institute website' are split by PhD programme and institute, respectively (Table S25 to S28). The information given by the Faculty of Veterinary Medicine (UU) was found less useful compared to the other institutes.

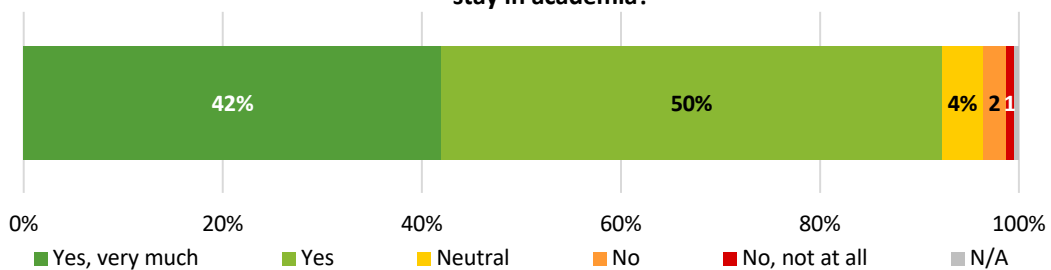
Figure 10. How useful were the following sources during the start of your PhD if you made use of them?

For PhD candidates who started in 2021 or earlier (n=286)



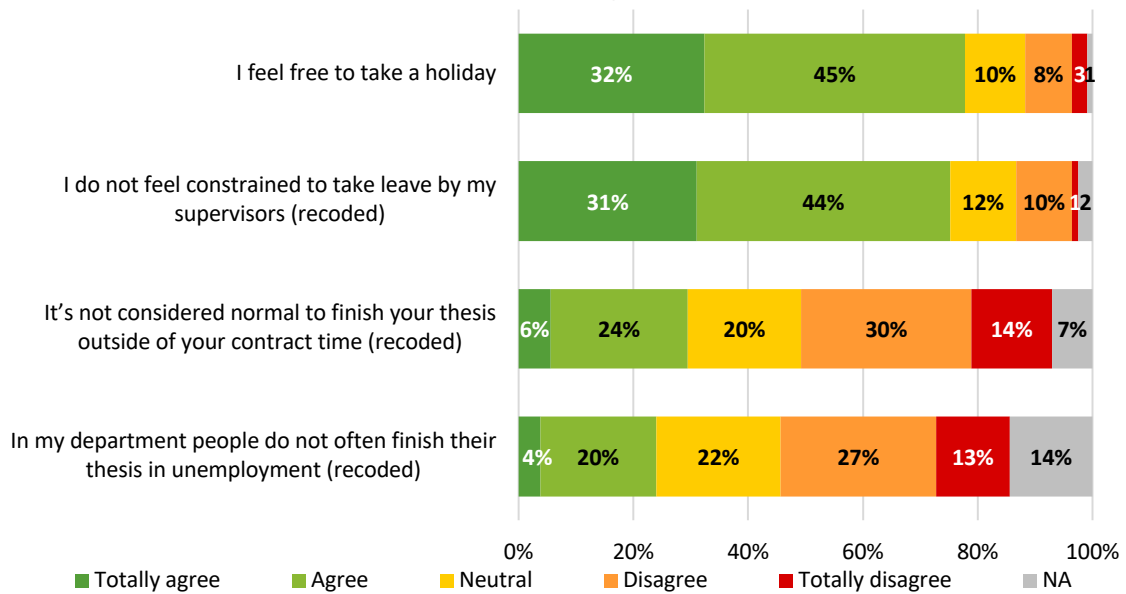
When asking PhDs if they think that their PhD adds value and is of relevance to a new job outside of academia, 92% answers yes (very much) (Figure 11).

Figure 11. Do you think your PhD adds value and is relevant also if you do not stay in academia?



When asking PhDs to respond to work environment-related statements (Figure 12), most PhD candidates (totally) agree with the statements 'I feel free to take a holiday' (77%) and 'I do not feel constrained to take leave by my supervisors' (75%). This seems to be related to the contentment of supervision (Table S29), as PhD candidates who are not content feel more constrained. Additionally, 44% of PhD candidates feel that it is normal to finish your thesis outside of your contract time and only 30% do not consider this normal (in the previous survey 2021/2022 46% of PhD candidates considered this normal and 27% did not consider this normal). This continues to be a problem, despite efforts such as the letter sent by the deans last year.

Figure 12. Please indicate for the following statements whether you agree or disagree.



NB: the original statements 'It's considered normal to finish your thesis outside of your contract time', 'In my department people often finish their thesis in unemployment' and 'I feel constrained to take leave by my supervisors' were recoded to make a comparison with the other (positively formulated) statements easier.

6.4 Equality, Diversity, and Inclusion

Eight statements regarding diversity and inclusion were presented. The first five (positively formulated) statements and responses are shown in Figure 13 (for an overview per institute see figure 13a to 13f) and this response is stratified per institute and nationality in the appendix (Tables S30-S33). Overall, 83% of the PhD candidates feel welcome and included at their institute (agree and totally agree). Concerningly, 7% of PhD candidates (totally) disagree that their institute provides an environment for free and open expression of ideas, opinions, and beliefs, and 13% (totally) disagree that it provides equal opportunities to all people, regardless of ethnicity, religion, gender, sexual orientation, and disability. Compared to the other institutes, PhD candidates of the Hubrecht Institute (59%) and Princess Máxima Center (54%) less often (totally) agree that their institute provides an environment for free and open expressions and provide equal opportunities to all people (Table S31a and S32a). However, PhDs from these same institutes (Hubrecht Institute (86%) and Princess Máxima Center (89%)) do personally feel welcome and included by their institute (Table S30). 15% of PhDs believe that their institute does not provide sufficient support to international employees who do not speak Dutch. Asking only non-Dutch PhDs gives comparable results (Table S34). This result is comparable with the overall response of the 2020 and the 2021/2022 survey. Similar to [the 2020 and the 2022 Survey](#), the lack of support is again the highest in the institutes where care (mainly Dutch speaking employees) and research are combined, such as the Princess Máxima Center and UMCU (Table S33).

Figure 13. Please indicate for the following statements whether you agree or disagree.

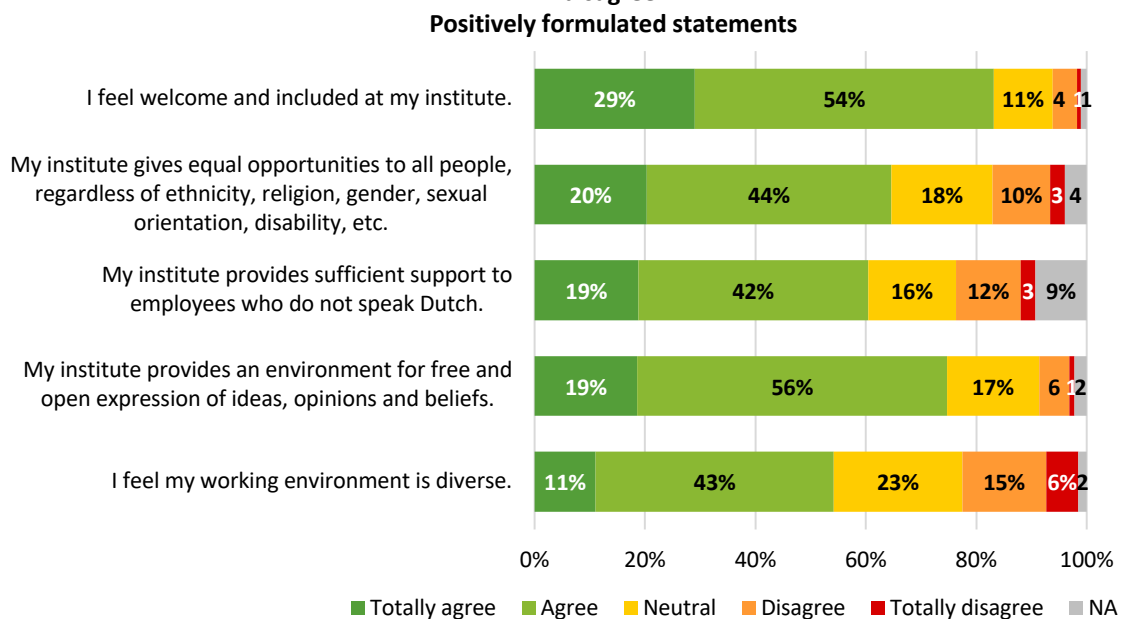


Figure 13a. Please indicate for the following statements whether you agree or disagree.

Positively formulated statements

- Faculty of Science (UU) -

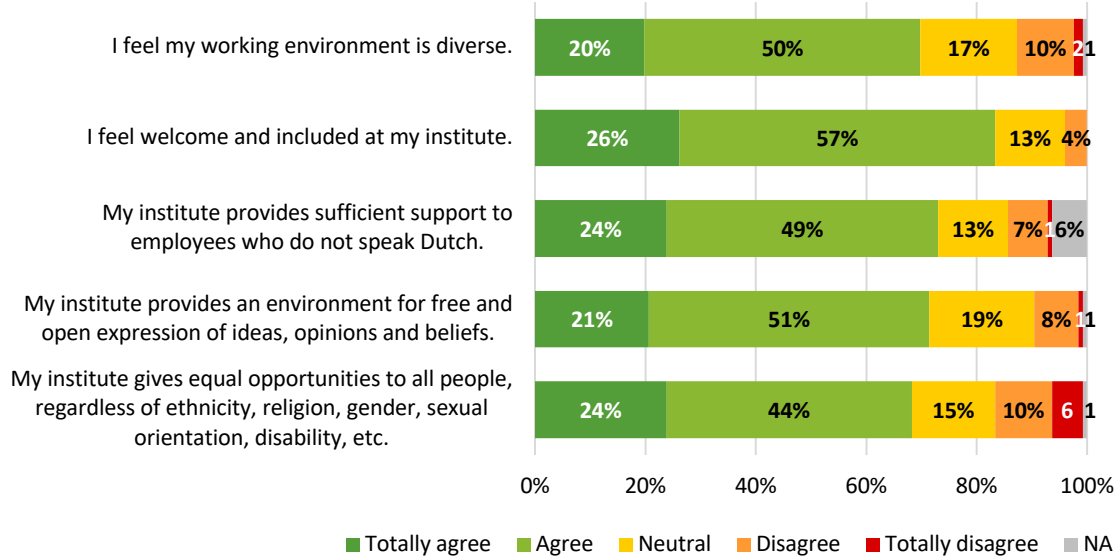


Figure 13b. Please indicate for the following statements whether you agree or disagree.

Positively formulated statements

- Faculty of Veterinary Medicine (UU) -

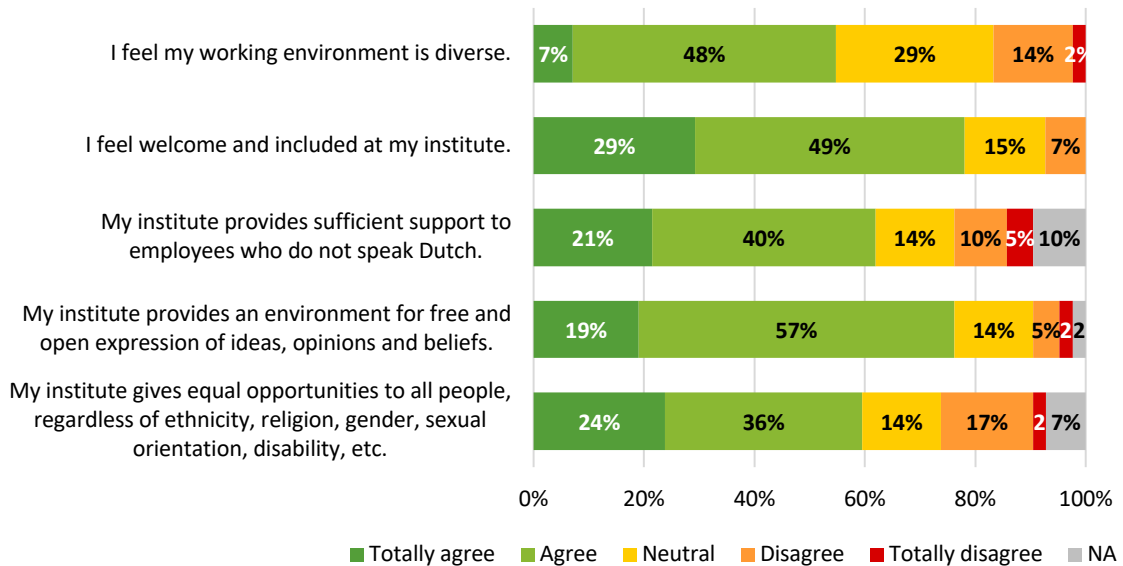


Figure 13c. Please indicate for the following statements whether you agree or disagree.

**Positively formulated statements
- University Medical Centre Utrecht (UMCU) -**

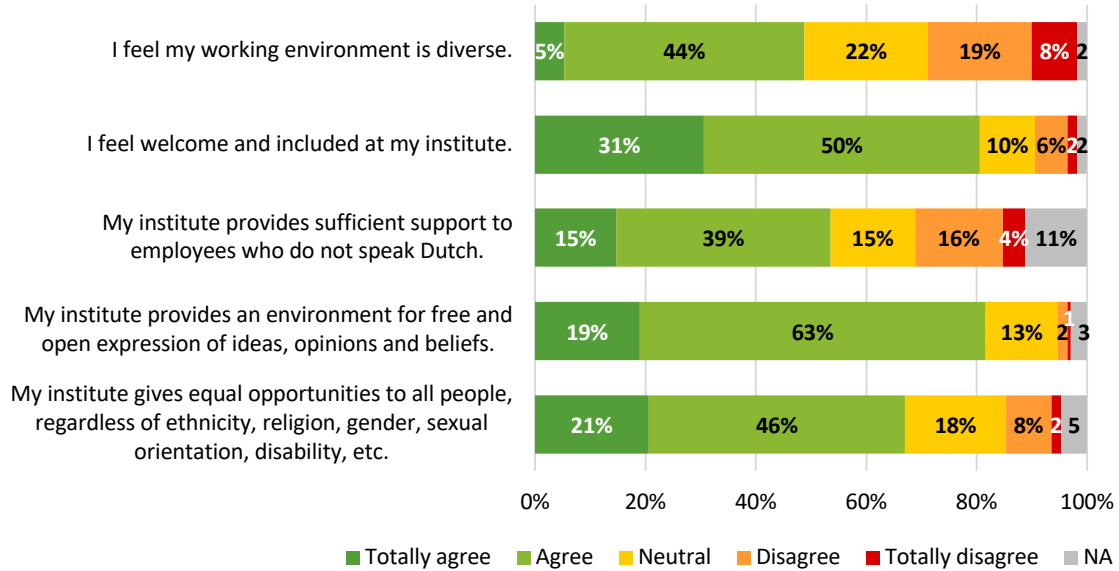


Figure 13d. Please indicate for the following statements whether you agree or disagree.

**Positively formulated statements
- Hubrecht Institute -**

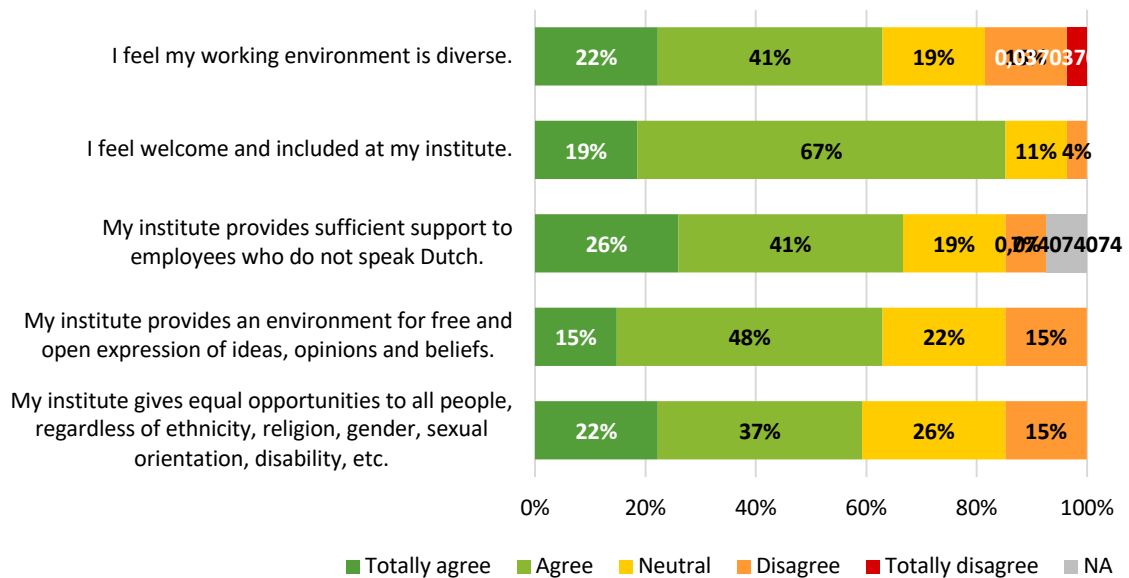


Figure 13e. Please indicate for the following statements whether you agree or disagree.

**Positively formulated statements
- Princess Maxima Centre (PMC) -**

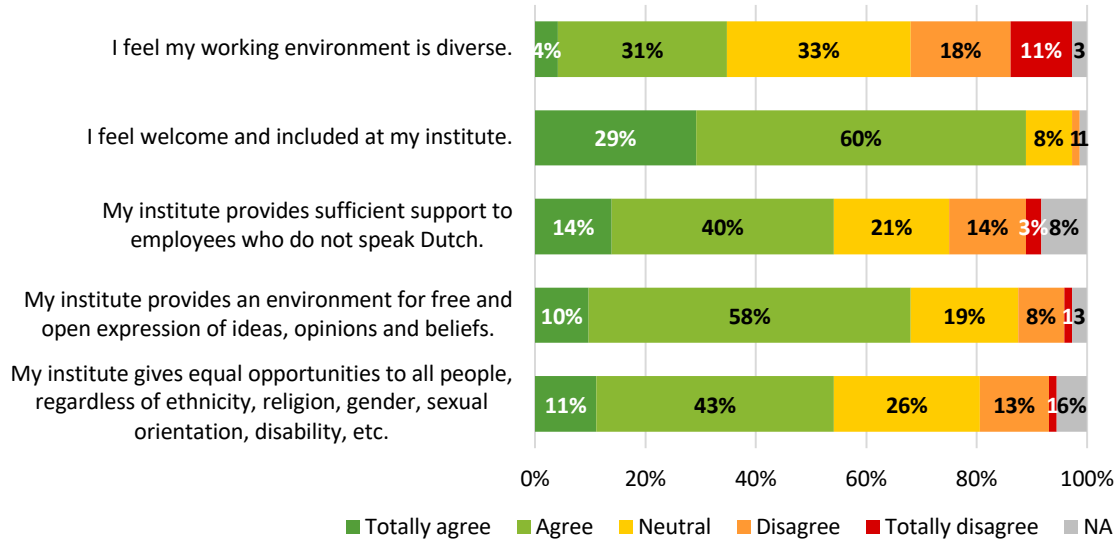
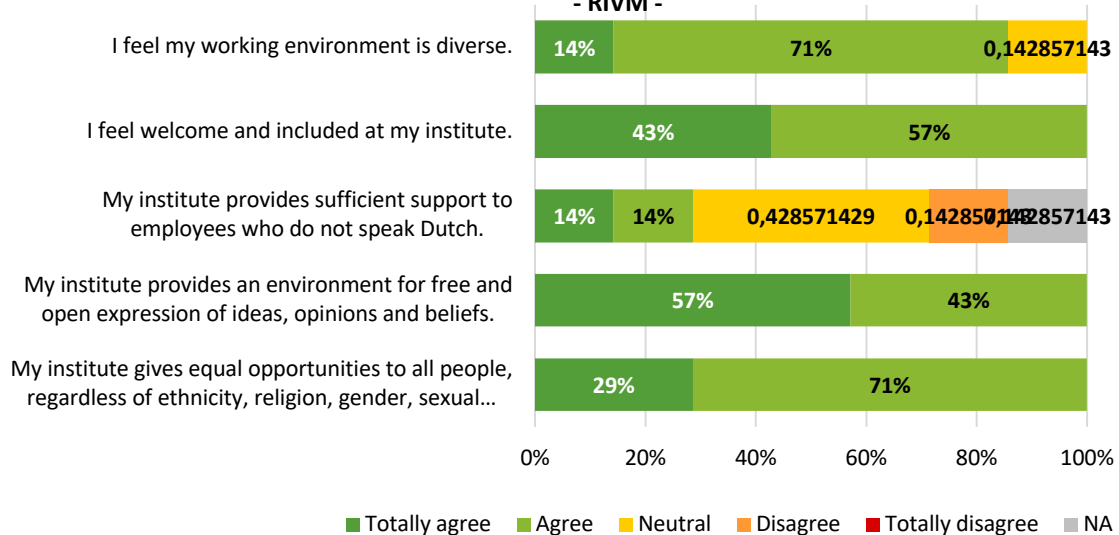


Figure 13f. Please indicate for the following statements whether you agree or disagree.

**Positively formulated statements
- RIVM -**



9% of the PhD candidates have been a victim of discrimination at their institute and 15% have personally witnessed discrimination at their institute (Figure 14). Table 8 shows the response per institute. Discrimination is the most visible at the Hubrecht Institute.

Figure 14. Please indicate for the following statements whether you agree or disagree.

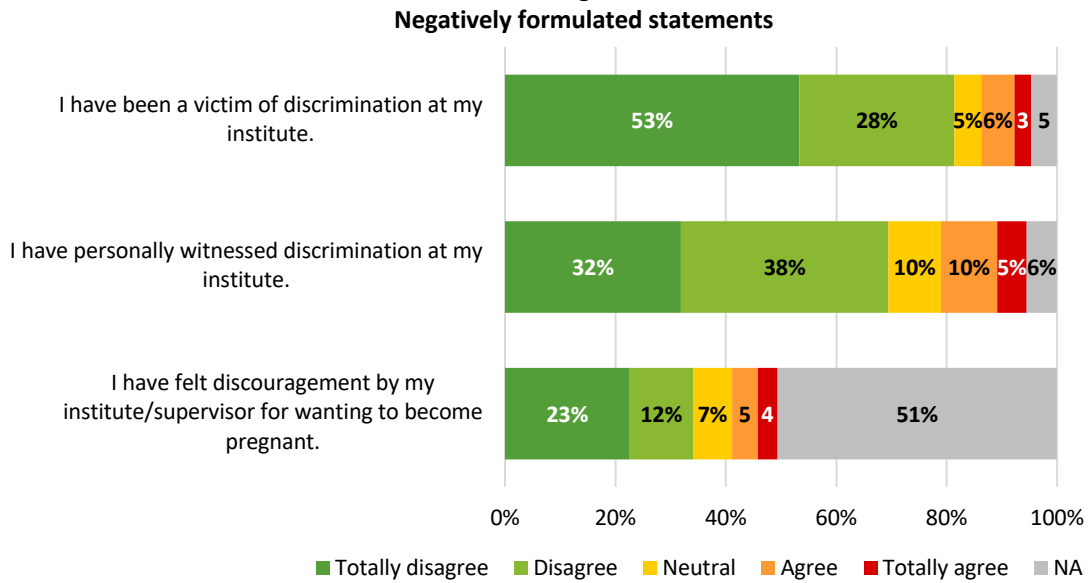


Table 8. Responses of PhD candidates per institute if they have personally witnessed discrimination or have been the victim of discrimination at their institute.

	I have been a victim of discrimination at my institute. (Totally) Agree (%)	I have personally witnessed discrimination at my institute. (Totally) Agree (%)
Faculty of Science (UU)	10%	21%
Faculty of Veterinary Medicine (UU)	10%	19%
University Medical Centre Utrecht (UMCU)	5%	8%
Hubrecht Institute	19%	33%
Princess Maxima Centre (PMC)	13%	17%
RIVM	0%	0%
Another institute	13%	13%
Average	9%	15%

6.5 Mental Health and Wellbeing

To estimate the work-life balance of the PhD candidates, we compare the number of hours they work per week to the number of hours stated in their contract. While only 7% thinks it is normal to have a longer than 40-hour workweek (Figure 5), more than half (61%) of the PhD candidates reported working more than four hours per week above what their contract states, of which 11% reported working more than ten hours per week above the hours stated in their contract (Figure 15a). See Table 9a and Figure 15b for the difference between actual working hours and hours according to contract split by the nationality of the PhD candidates.

Figure 15a. Difference between actual working hours and hours according to contract

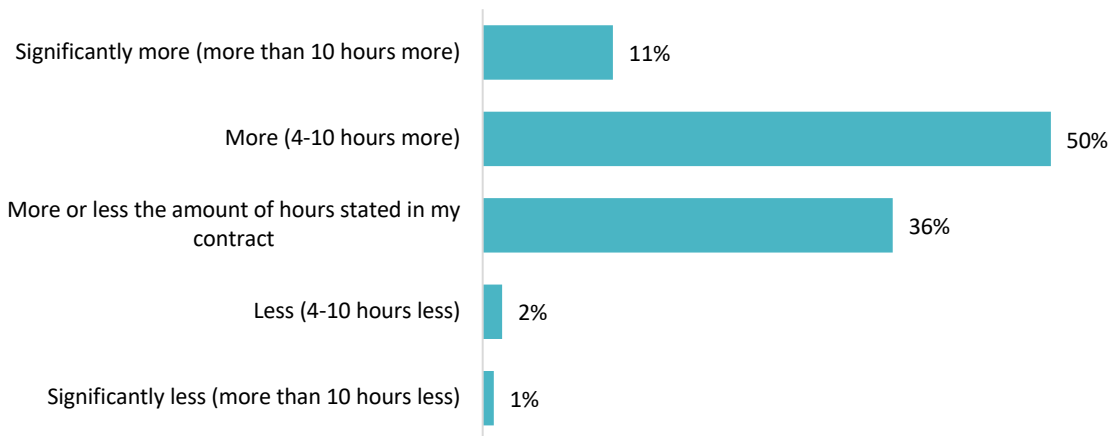
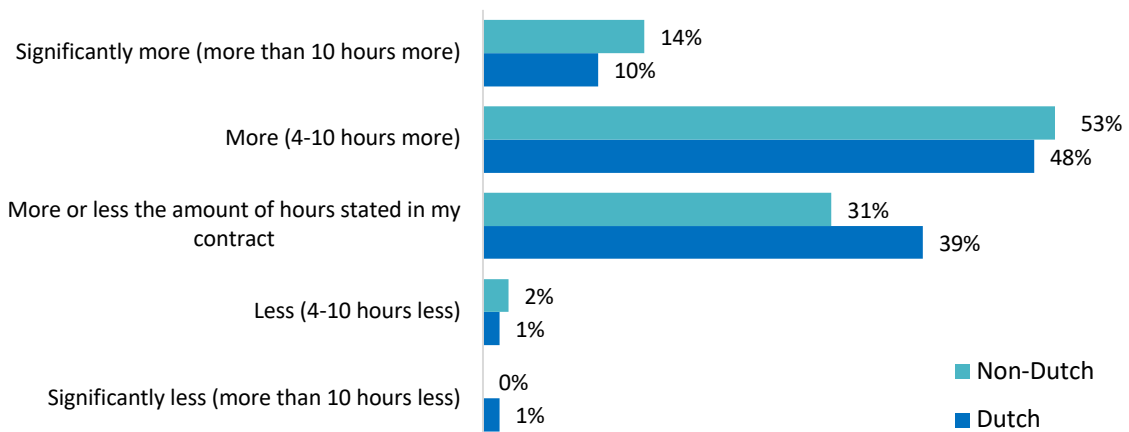


Figure 15b. Difference between actual working hours and hours according to contract



When we looked at individual institutes and PhD programmes (Table S35 and S36), it stood out that 85% of candidates from the Hubrecht Institute work 4-10 hours or >10 hours more than stated in their contract. In addition, candidates from Cancer, Stems Cells & Developmental Biology (88%), Cardiovascular Research (77%), and Infection and Immunity (80%) more often work 4-10 hours or >10 hours more than stated in their contract compared to those of other programmes.

Table 9a. Difference between actual working hours and hours according to contract
Split by nationality of the PhD candidates.

	Dutch	Non-Dutch, European	Non-Dutch, Non-European	Multiple nationalities	All
Significantly less (more than 10 hours less)	1% (4)	0% (0)	0% (0)	0% (0)	1% (4)
Less (4-10 hours less)	1% (4)	3% (2)	2% (1)	0% (0)	2% (7)
More or less the amount of hours stated in my contract	39% (107)	28% (20)	36% (19)	20% (2)	36% (148)
More (4-10 hours more)	48% (134)	55% (39)	47% (25)	70% (7)	50% (205)
Significantly more (more than 10 hours more)	10% (28)	14% (10)	15% (8)	10% (1)	11% (47)
Total	100% (277)	100% (71)	100% (53)	100% (10)	100% (411)

64% of PhD candidates find their workload is acceptable, while 16% finds their workload unacceptable (Figure 16). PhD candidates who work more hours than stated in their contract tend to find their workload less acceptable (Table 9).

Figure 16. To what extent do you agree with the following statement: My workload is acceptable.

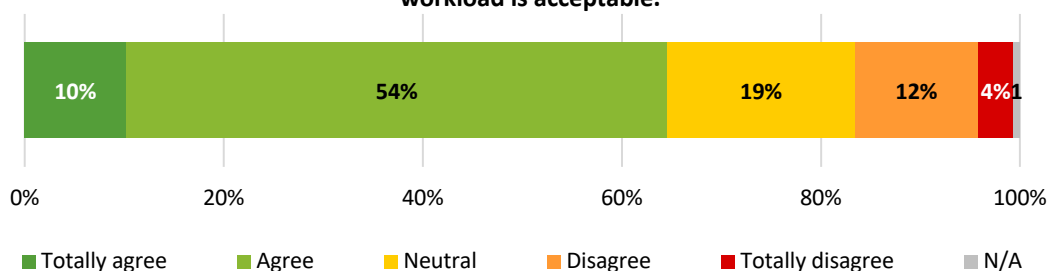


Table 9b. To what extent do you agree with the following statement: My workload is acceptable.
Split by difference between actual working hours and hours according to contract

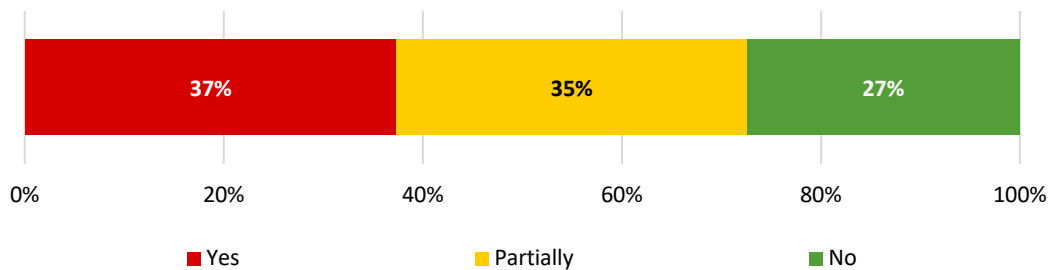
	Significantly less (more than 10 hours less)	Less (4-10 hours less)	More or less the number of hours stated in my contract	More (4-10 hours more)	Significantly more (more than 10 hours more)	All
Totally agree	x	29% (2)	19% (28)	5% (11)	2% (1)	10% (42)
Agree	x	71% (5)	61% (90)	56% (116)	23% (11)	55% (225)
Neutral	x	0% (0)	15% (22)	20% (42)	30% (14)	19% (78)
Disagree	x	0% (0)	5% (7)	15% (31)	30% (14)	13% (52)
Totally disagree	x	0% (0)	1% (1)	3% (6)	15% (7)	3% (14)
NA	x	0% (0)	0% (0)	0% (0)	0% (0)	0% (1)
Total	x	100% (7)	100% (148)	100% (206)	100% (47)	100% (412)

Table 9c. To what extent do you agree with the following statement: My workload is acceptable.
Split by difference between actual working hours and hours according to contract

	Faculty of Science (UU)	Faculty of Veterinary Medicine (UU)	University Medical Centre Utrecht (UMCU)	Hubrecht Institute	Princess Maxima Centre (PMC)	RIVM	Another institute	All
Totally agree	9% (11)	12% (5)	11% (19)	7% (2)	13% (9)	0% (0)	0% (0)	10% (46)
Agree	56% (70)	43% (18)	57% (97)	52% (14)	54% (39)	57% (4)	50% (4)	54% (246)
Neutral	24% (30)	21% (9)	15% (25)	22% (6)	17% (12)	14% (1)	25% (2)	19% (85)
Disagree	9% (11)	17% (7)	15% (25)	11% (3)	8% (6)	29% (2)	25% (2)	12% (56)
Totally disagree	2% (3)	7% (3)	1% (2)	7% (2)	8% (6)	0% (0)	0% (0)	4% (16)
NA	1% (1)	0% (0)	1% (2)	0% (0)	0% (0)	0% (0)	0% (0)	1% (3)
Total	100% (126)	100% (42)	100% (170)	100% (27)	100% (72)	100% (7)	100% (8)	100% (452)

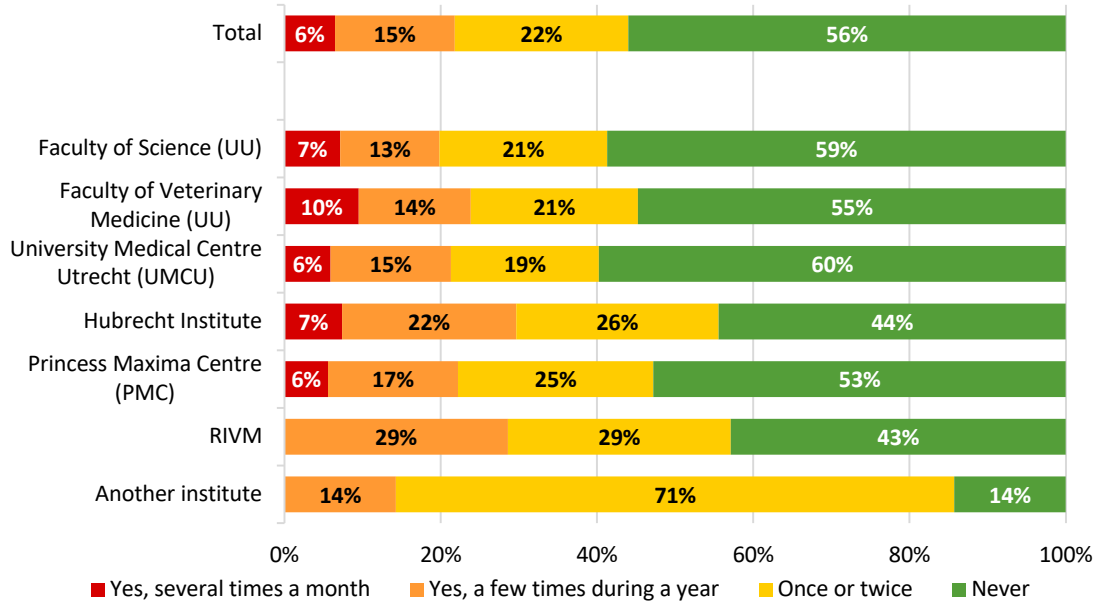
More than a third (37%) of PhD candidates are worried about finishing their PhD within contract time (Figure 17). 27% are not worried about this.

Figure 17. Are you worried about finishing your PhD within contract time?



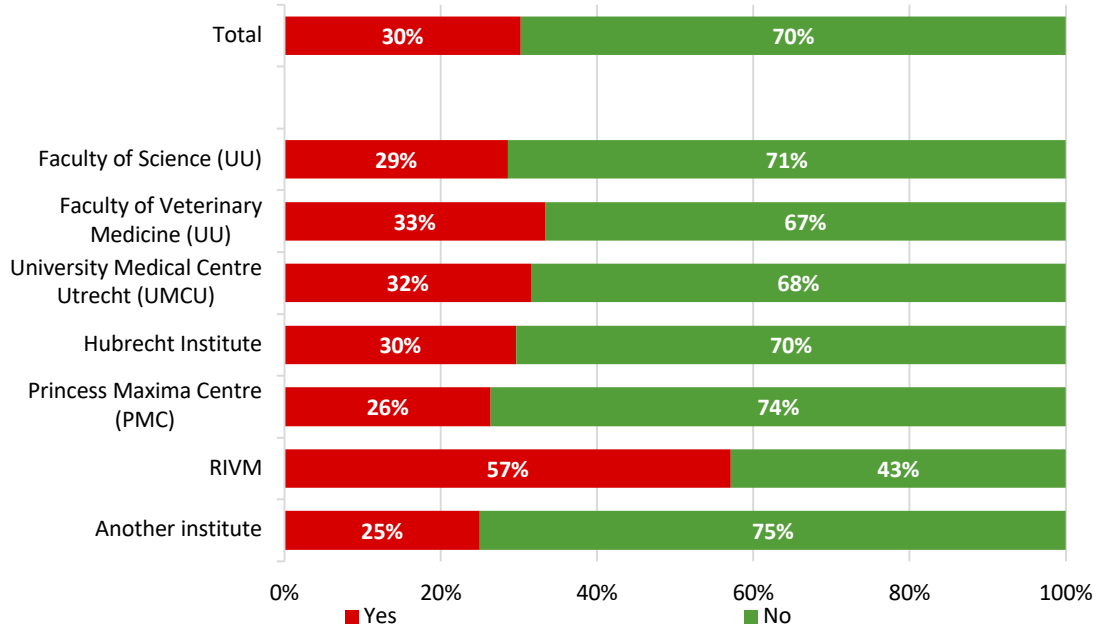
44% of PhDs have considered stopping their PhD (Figure 18), ranging from several times a month (6%) or a few times a year (15%) to once or twice (22%).

Figure 18. Have you ever considered stopping your PhD?



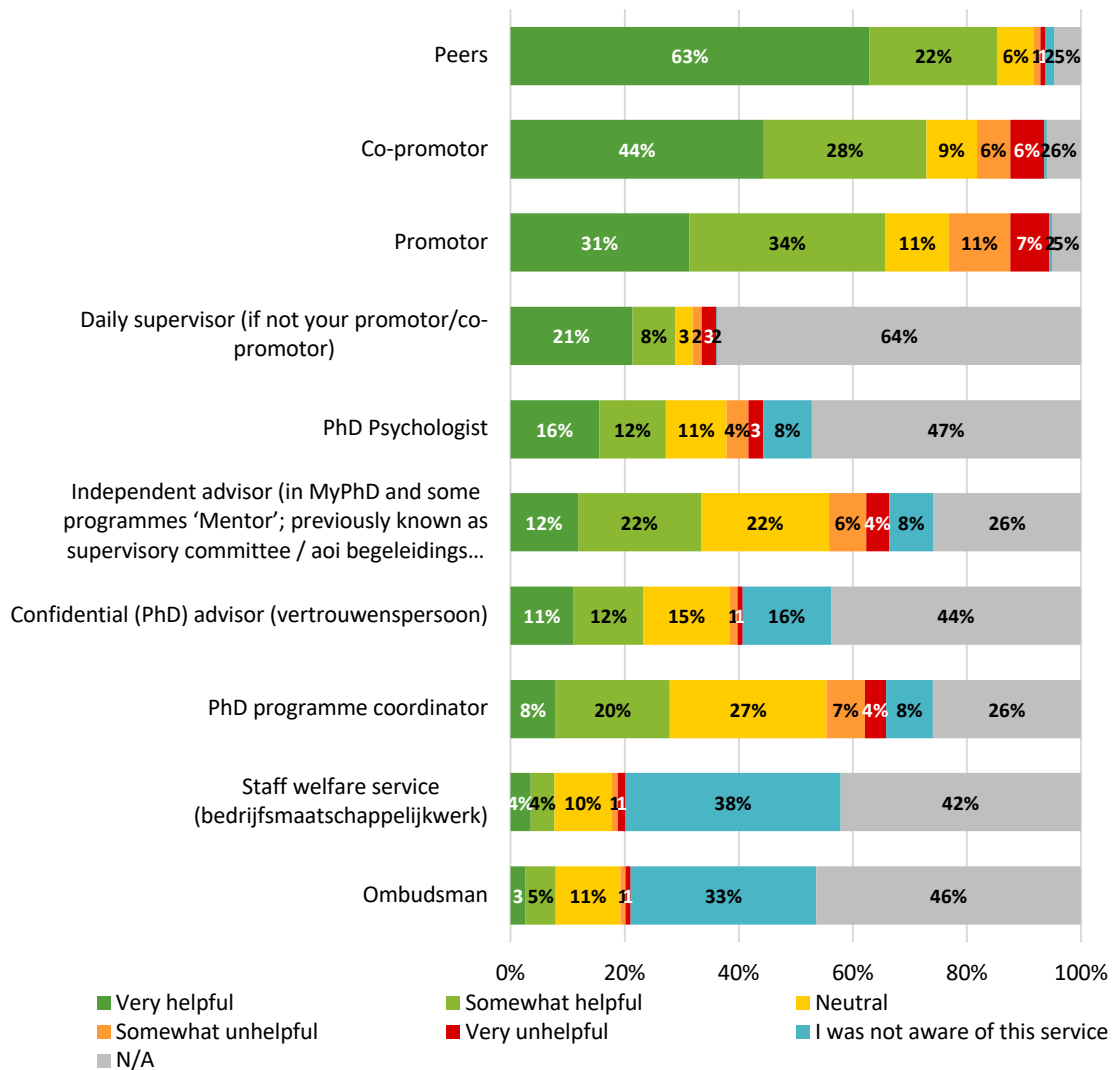
30% of PhD candidates have encountered a PhD-related or mental health-related problem for which they wanted to seek help via the options offered by the university (Figure 19).

Figure 19. Have you encountered a PhD-related /mental health related problem for which you wanted to seek help via the options offered by the university?



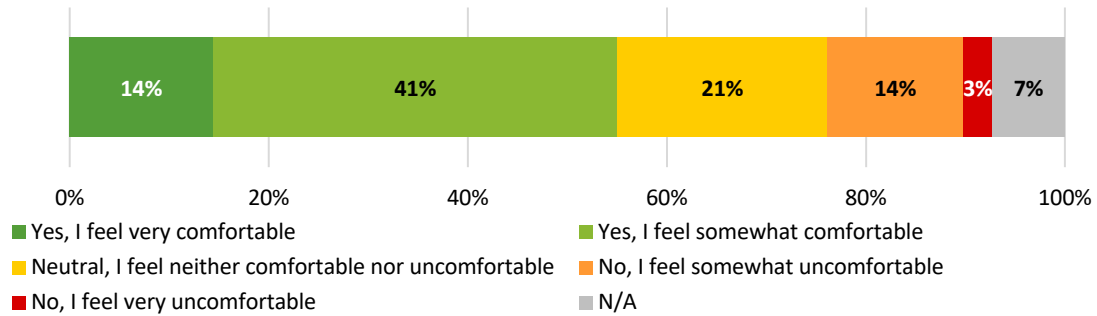
Peers are considered to be the most helpful when a problem is encountered (85% consider peers very or somewhat helpful). Co-promotors (73%) and Promotors (66%), while considered helpful by the majority of students, are less often considered to be helpful than peers (Figure 20). 28% of the PhDs rate the psychologist as helpful. Only 7% don't find the PhD psychologist helpful. It is also noteworthy that certain services, such as the staff welfare service and ombudsman, are less well known to PhD candidates.

Figure 20. There are multiple services in place to help you if you encounter a problem. How would you rate the services below in terms of helpfulness?



55% of PhD candidates feel comfortable using the offered services if they have a problem. 17% feel somewhat or very uncomfortable (Figure 21).

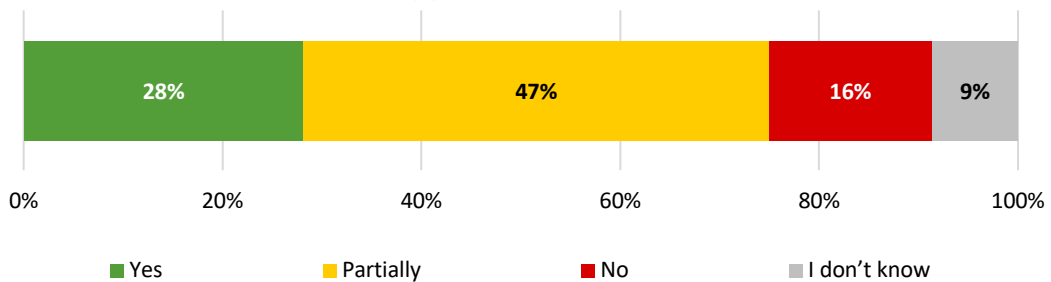
Figure 21. Do you feel comfortable in using the offered services if you have a problem?



The PhD candidates who feel uncomfortable using the offered services were asked to specify the reasons for not feeling comfortable. For the answers we refer to Appendix B.

The topic mental health is increasingly incorporated in institutional plans and guidelines, but, do PhD candidates think the topic is addressed well enough? The survey shows that 28% of the PhD candidates feel that the topic of mental health is addressed well enough by the GSLs, 47% think the topic is partially addressed well enough, and 16% do not think mental health is addressed well enough (Figure 22).

Figure 22. Do you feel that the topic of mental health is addressed well enough by your institute or the GSLs?



We subsequently asked why the PhD candidates think mental health is (not) addressed well enough. For the answers we refer to Appendix B.

The *Utrecht Burnout Scale – General (UBOS-A)* was used to assess the prevalence of burnout and feelings of emotional exhaustion, mental distance, and feelings of competence in PhD candidates. This scale has also been used in the previous PhD Surveys. It covers three domains:

- **(Emotional) Exhaustion (U):** *The feeling of being completely 'empty' or 'empty' because of the work. This domain contains (amongst others) the statements "I feel mentally exhausted by my work." and "I feel tired when I get up in the morning and there is another workday in front of me."*
- **Mental Distance (D):** *A cynical, distant, and not much involved attitude towards the PhD candidate's own work. This domain contains (amongst others) the statements "I doubt the significance of my work" and "I have become less connected to my work since starting my job."*
- **Competence (C):** *To what extent PhD candidates feel capable of doing their job well. This domain contains (amongst others) the statements "I have learned many valuable things during my PhD" and "Regarding my work, I am full of self-confidence."*

These domains are measured using 16 statements that the PhD candidate needed to rate on a 7-point scale ranging from never (which gets a score of 0) to every day (which gets a score of 6). The figures below show that for the current survey, most PhD candidates experience high or very high levels of mental distance and emotional exhaustion (Figure 23). Compared to 2019 and 2020, a higher percentage of PhD candidates feel very high levels of emotional exhaustion (similar to 2022). Feelings of competence are most often experienced in moderate or low levels. While the reported mental distance overall seems to be improving (i.e. decreasing), 46% of respondents have (very) high levels thereof.

Figure 23. Distribution of the extent of burnout-symptoms measured with the Utrecht Burnout Scale – General (UBOS-A) per survey year.

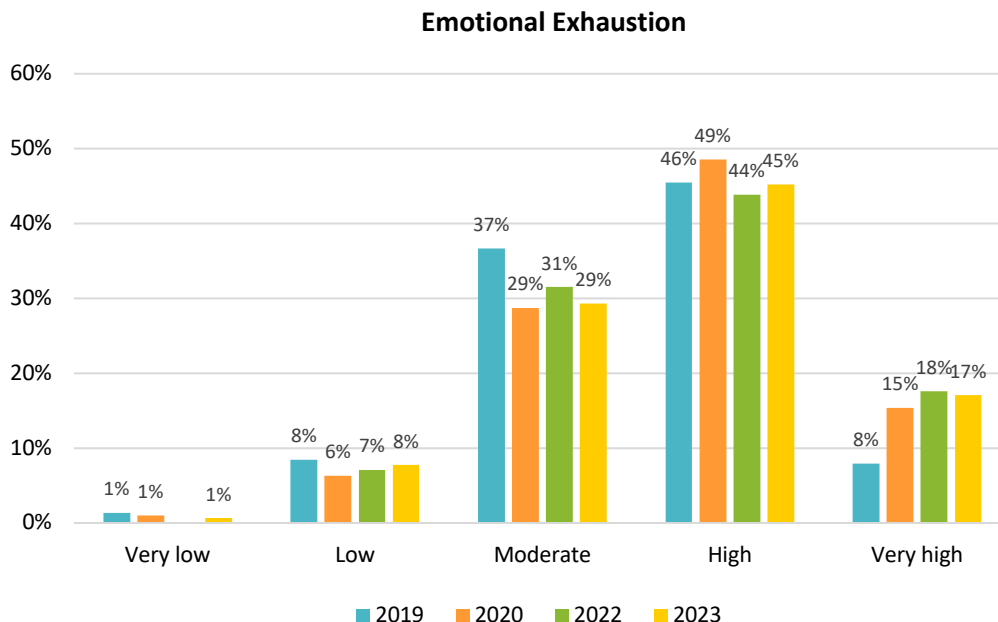


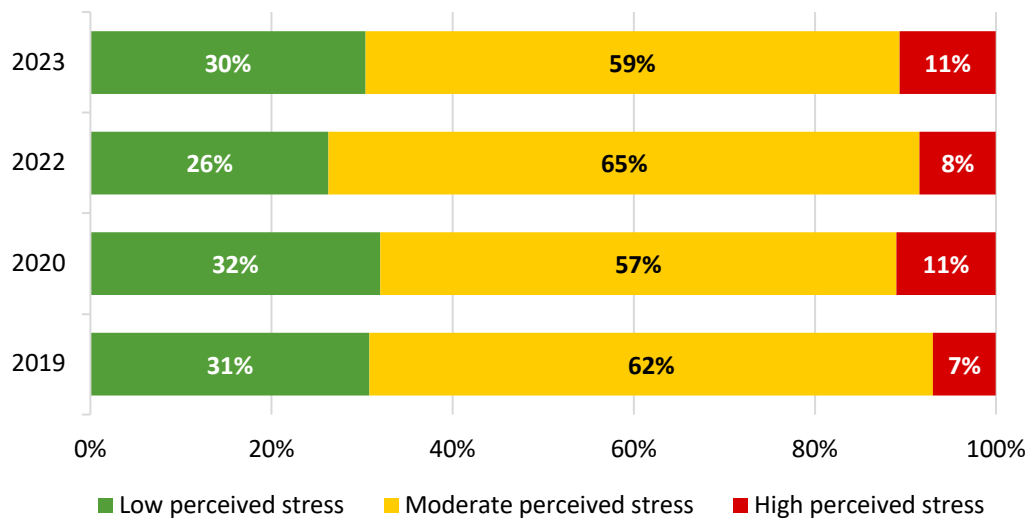
Figure 22 continued.



Overall, these results suggest that the prevalence of burnout and feelings of emotional exhaustion, mental distance, and feelings of competence among PhD students is staying roughly the same or improving slightly compared to recent years, but remains concerning.

To assess whether the PhD candidates perceive themselves as being under stress, the Perceived Stress Scale (PSS) has been used. All questions are answered on a 5-point scale ranging from never (score of 0) to very often (score of 4). An average is then calculated to estimate the stress level of the PhD candidates (Figure 24). While about a third of the PhD candidates (30%) perceive low stress levels, more than half (59%) perceive moderate stress levels and 11% perceive high stress levels. In general, perceived stress does not seem to be improving or worsening in recent years.

Figure 24. Distribution of Perceived Stress Scale (PSS) scores per survey year.



6.6 A safe workplace

The following text was used to introduce the section of the survey about a safe workplace:

The Graduate School of Life Sciences wishes a safe learning and working environment for all PhD candidates.

A safe learning and working environment is described as an environment in which:

- *PhD candidates feel safe, relaxed, and willing to take risks*
- *PhD candidates' self-esteem is enhanced*
- *PhD candidates dare – with mutual respect – to ask questions and give and receive feedback.*

Most (61%) PhD candidates experience their working environment as being safe; however, one in ten (10%) PhD candidates do not experience it as safe (Table 10). 15% of candidates from the Hubrecht Institute and 14% of candidates from the Princess Maxima Centre and RIVM **do not** experience their working environment as safe. While for some PhD programmes, such as Cardiovascular Research (80%), Computational Life Sciences (87%), Life Sciences Education Research (80%), and Medical Imaging (88%), the levels of safety are promising, even then there is still a small proportion of candidates who report their work environment as being unsafe. More concerning are programmes such as Molecular Life Sciences and Regenerative Medicine, in which 29% and 25% did not experience their work environment as being safe, respectively (Table S37).

Table 10. In the past year, did you experience your working environment as being safe as described above?

Split by institute of the PhD candidates.

	Faculty of Science (UU)	Faculty of Veterinary Medicine (UU)	University Medical Centre Utrecht (UMCU)	Hubrecht Institute	Princess Maxima Centre (PMC)	RIVM	Another institute	All
No	9% (11)	10% (4)	9% (16)	15% (4)	14% (10)	14% (1)	0 (0%)	10% (46)
Partially	28% (35)	38% (16)	23% (39)	52% (14)	29% (21)	29% (2)	14% (1)	28% (128)
Yes	63% (80)	52% (33)	68% (115)	33% (9)	57% (41)	57% (4)	86% (6)	61% (277)
Total	100% (126)	100% (42)	100% (170)	100% (27)	100% (72)	100% (7)	100% (7)	100% (451)

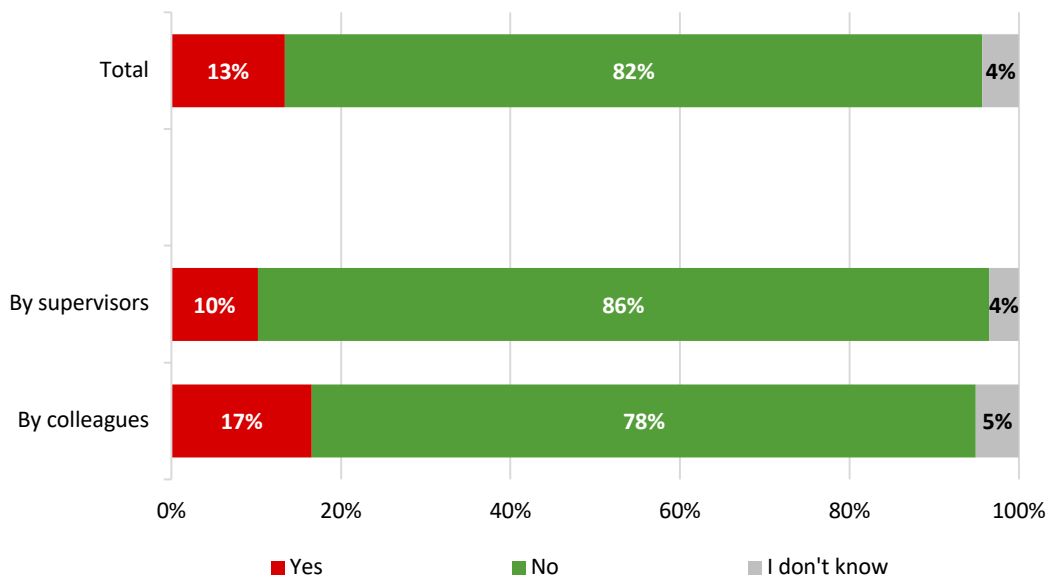
Inappropriate behaviour constitutes inappropriate manners (for example gossiping, ridiculing, intentionally excluding someone), discrimination (based on gender, race, religion, sexuality, national origin, mental or physical disability, illness), bullying, violence and aggression, and sexual harassment. Additionally, inappropriate behaviour can include other behaviour that you yourself find inappropriate.

10% of PhD candidates experienced inappropriate behaviour by their supervisor(s) in the past 12 months (Figure 25). In the previous survey of 2021/2022 this percentage was 8%. Candidates from the Princess Maxima Centre (21%) have experienced inappropriate behaviour by their supervisors most often compared to other institutes within the last 12 months. Per PhD programme, the highest levels of inappropriate behaviour by supervisors were reported in Cardiovascular Research (20%), Molecular Life Sciences (21%), and Regenerative Medicine (35%) (Table S38, Table S39).

In addition, 17% experienced inappropriate behaviour by other colleagues (in the previous survey 2021/2022 this percentage was 15%). This percentage was highest for students in the Faculty of Veterinary Medicine (UU) (24%) and the Hubrecht Institute (33%). Per programme, this percentage was highest in Molecular Life Sciences (29%), Regenerative Medicine (30%) and Toxicology & Environmental Health (27%) (Table S40, Table S41).

See Table S42 and Table S43 for an overview of the experienced inappropriate behaviour by any supervisors or colleagues split by PhD programme and institute.

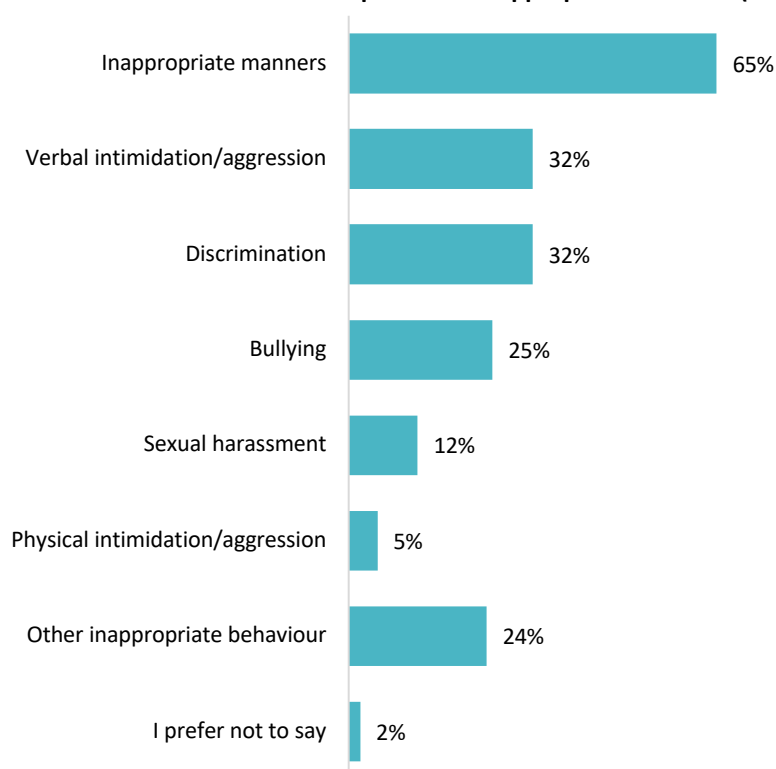
Figure 25. Did you experience any kind of inappropriate behaviour in the past 12 months at Utrecht University?



Almost two-thirds (65%) of the PhD candidates who have experienced inappropriate behaviour, have experienced inappropriate manners (Figure 26). 32% have experienced verbal intimidation/aggression, 32% have experienced discrimination, and 25% have experienced bullying. For the open answers that followed the category ‘other types of inappropriate behaviour’, we refer to Appendix B. Candidates from Faculty of Science (UU) significantly more often indicate they have experienced bullying (41%) (Table S45). Candidates from Hubrecht Institute significantly more often indicate they have experienced sexual harassment (45%, in the previous survey 2021/2022 this percentage was 20% for Hubrecht Institute), more than four times higher than what is seen for any other institute (Table S45).

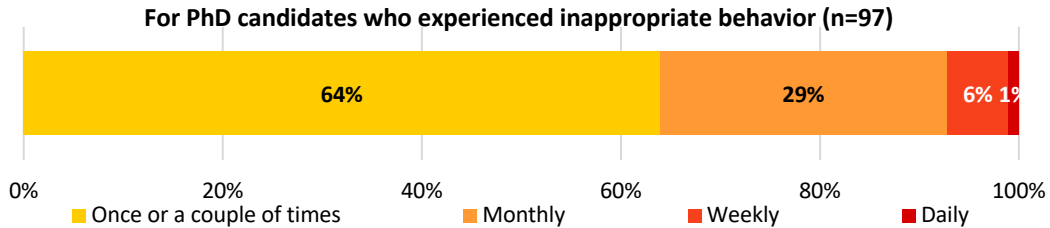
Figure 26. Which kind(s) of inappropriate behaviour did you experience in the past 12 months by supervisors and/or other colleagues at Utrecht University?
Multiple answers possible

For PhD candidates who experienced inappropriate behavior (n=99)



7% of the inappropriate behaviour was experienced weekly or daily in the past 12 months, 29% was experienced monthly, and 64% was experienced once or a couple of times (Figure 27). This means that more than one-third of the respondents who have experienced inappropriate behaviour do so on a regular basis.

Figure 27. How often were you confronted with the inappropriate behaviour in the past 12 months by supervisors and/or other colleagues at Utrecht University?



After the question above, the following text was shown to the PhD candidates:

Utrecht University and the GSLs can help you (1) to discuss a case of inappropriate behaviour and (2) to assist you if you want to make an official complaint. To create a safe environment for discussing and reporting inappropriate behaviour, multiple people are appointed with different social distance to your working environment:

1. (Co-)supervisor or independent advisor (mentor)
2. PhD programme coordinator/leader
3. Faculty/Institute Confidential (PhD) advisor (vertrouwenspersoon)
4. (PhD) Psychologist
5. Human resources

You can review the types of support that are available to you when you encounter a problem on the following website: <https://www.uu.nl/en/education/graduate-school-of-life-sciences/phd/support-during-your-phd>

Almost half of the PhD candidates (48%) tried to discuss or report the inappropriate behaviour they experienced (Table 11). Between 2020 and 2021, most PhD candidates responded that they did not try to discuss or report inappropriate behaviour, whereas in 2019 and 2022, the majority of PhD candidates did engage in discussing or reporting such behaviour. Nevertheless, we found no significant differences based on the starting year or gender of the candidates (Table 11, Table 12).

Table 11. Have you ever tried to discuss or report inappropriate behaviour by supervisors and/or other colleagues at Utrecht University?

*For PhD candidates who experienced inappropriate behaviour
Split by starting year of the PhD candidates.*

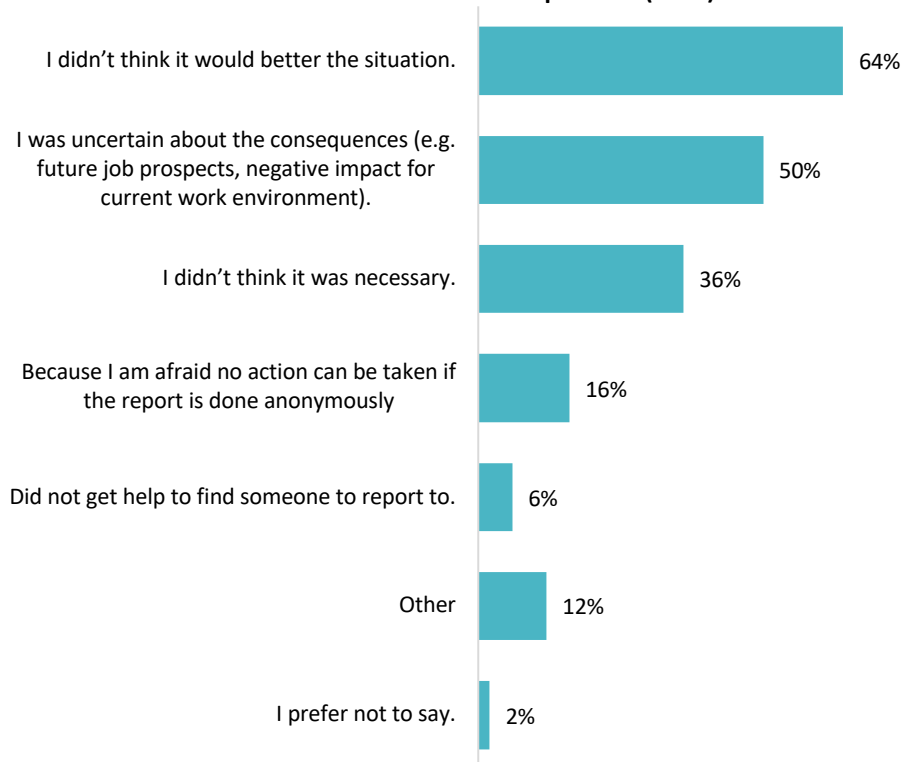
Starting year:	Before 2016	2016	2017	2018	2019	2020	2021	2022	2023	All
Yes	x	x	x	x	74% (17)	32% (6)	33% (7)	67% (12)	x	48% (45)
No	x	x	x	x	26% (6)	68% (13)	67% (14)	33% (6)	x	52% (49)
Total	x	x	x	x	100% (23)	100% (19)	100% (21)	100% (18)	x	100% (94)

Table 12. Have you ever tried to discuss or report inappropriate behaviour by supervisors and/or other colleagues at Utrecht University?
For PhD candidates who experienced inappropriate behaviour
Split by gender of the PhD candidates.

	Male	Female	Non-Binary	All
Yes	65% (15)	42% (29)	x	48% (45)
No	35% (8)	58% (40)	x	52% (49)
Total	100% (23)	100% (69)	x	100% (94)

We asked the PhD candidates who did not discuss or report the inappropriate behaviour they experienced, what the reasons were for not doing this. Almost two-thirds the PhD candidates (64%) indicate that they did not think it would better the situation, 50% were uncertain about the consequences, and 36% did not think it was necessary (Figure 28). We found no significant differences by year or gender (Table S46, Table S47).

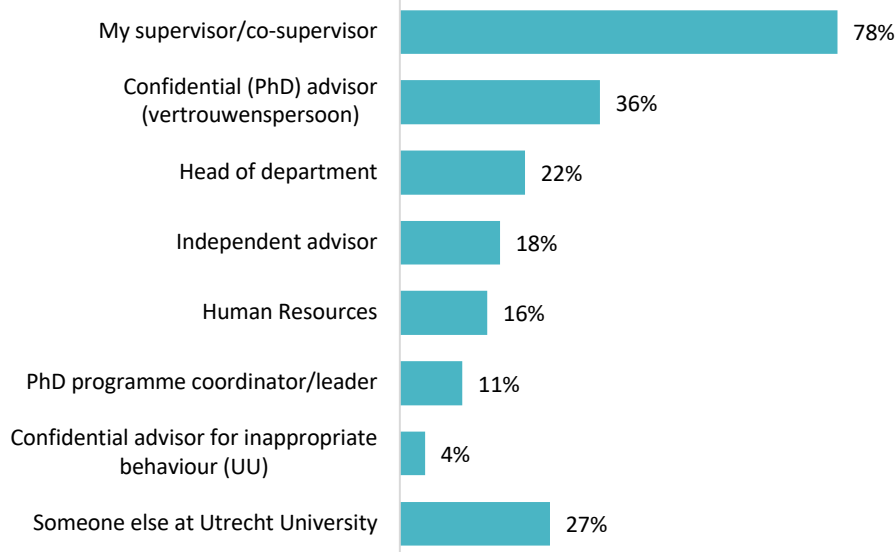
Figure 28. What were the reasons for not discussing or reporting inappropriate behaviour? Multiple answers possible
For PhD candidates who experienced inappropriate behavior and did not try to discuss or report this (n=50)



Of the PhD candidates that tried to discuss or report the inappropriate behaviour they experienced, most (78%) sought help with their supervisor or co-supervisor (Figure 29). 36% discussed it with the confidential (PhD) advisor of the faculty, 22% with the head of department, 18% with an independent advisor, 16% with Human Resources, 11% with the PhD programme coordinator/leader, 4% with the confidential advisor for inappropriate behaviour (UU), and 27% with someone else at Utrecht University.

Figure 29. With whom did you try to discuss or report inappropriate behaviour by supervisors and/or other colleagues at Utrecht University? Multiple answers possible

For PhD candidates who experienced inappropriate behavior and tried to discuss or report



Of the PhD candidates who tried to discuss or report the inappropriate behaviour ($n = 45$) a relatively large group was not satisfied with the follow-up actions: 35% were (very) dissatisfied with the follow-up and 27% were neutral (Figure 30).

Figure 30. How satisfied/dissatisfied were you with how it was followed up? For PhD candidates who experienced inappropriate behavior and tried to discuss or report this (n=45)

