Exploring the Interest for and Value of Supervised Peer Groups for PhD Students

Freja Herborg

Department of Neuroscience
University of Copenhagen

Introduction

The PhD journey is often described as a peak academic achievement, but for many students, it is also characterized by prolonged periods of stress, isolation, uncertainty, and significant psychological pressure (Evans, Bira et al. 2018, Fried, Atkins et al. 2019, Neves and Stephenson 2023). This stress can undermine confidence, motivation and problem-solving capacity (Neves and Hillman 2017, Barry, Woods et al. 2018)

To mitigate these challenges, various support systems are crucial for graduate student success and well-being. Supervision has long been recognized as a cornerstone of doctoral education, valued not only for academic mentorship but also for the emotional and practical support it can provide (Pyhältö, Vekkaila et al. 2012, Cornér, Löfström et al. 2017, Sverdlik, C. Hall et al. 2018). Yet, the supervisor–student relationship, while essential, is not always sufficient to address the diverse and evolving needs of doctoral students. Supervisors may lack the time, insight, or proximity to fully grasp the day-to-day challenges their students face. Additionally, communication difficulties, mismatched expectations, lack of feedback or overly critical feedback - or the perception thereof - can unintentionally increase students' sense of isolation and influence their engagement (Pyhältö, Vekkaila et al. 2012, Bazrafkan, Shokrpour et al. 2016, Cornér, Löfström et al. 2017). Conversely, feeling supported within the scholarly learning environment leads to greater engagement with studies, more well-being and facilitates academic development (Pyhältö, Vekkaila et al. 2012, Cornér, Löfström et al. 2017, Neves and Hillman 2017, Evans, Bira et al. 2018). In this context, there is growing interest in peer-based interventions that

complement traditional one-to-one supervision of PhD students by fostering connection and community beyond of the student-supervisor relationship (Lorenzetti, Shipton et al. 2019, Pointon-Haas, Waqar et al. 2023). Peer feedback can be a powerful learning setting that allows for formative, low-stakes feedback that can build students' confidence in both giving and receiving constructive inputs (Pyhältö, Vekkaila et al. 2012, Sverdlik, C. Hall et al. 2018). Peer discussions have also been shown to offer valuable emotional and intellectual support, reducing isolation and enhancing motivation, resilience, and study performance (Fried, Atkins et al. 2019, Lorenzetti, Shipton et al. 2019, Gold, Jia et al. 2021, Nokkala, Aarnikoivu et al. 2021, Panayidou and Priest 2021).

While some peer groups arise informally - initiated by doctoral students seeking mutual support - supervised peer groups represent a more intentional and structured model of peer-based intervention. In these settings, a senior academic takes on a facilitative, non-authoritative role, guiding discussion and activities to promote student-led learning (Lorenzetti, Shipton et al. 2019, Nokkala, Aarnikoivu et al. 2021, Pointon-Haas, Waqar et al. 2023). The more formalized structure can help support sustained engagement by creating a clearer scaffold for reflective practice, goal-setting, and skill development (Lorenzetti, Shipton et al. 2019, Gold, Jia et al. 2021). Compared to conventional one-on-one supervision, which is often hierarchical and focused on research outcomes, supervised peer groups typically aim to nurture a broader set of competencies related to building self-efficacy—the belief in one's ability to navigate challenges and achieve complex goals, which is strongly linked to doctoral persistence and resilience (Lorenzetti, Shipton et al. 2019, Nokkala, Aarnikoivu et al. 2021). As such, supervised or facilitated student peer groups may offer a supplementary structure to the immediate research environment, offering students a space to articulate ideas, share coping strategies, and receive recognition. As the focus is not tied to a specific research topic, it allows students from different fields or labs to come together around shared developmental goals. In doing so, they could help foster a broader sense of academic community and promote healthy, sustainable research cultures (Lorenzetti, Shipton et al. 2019, Nokkala, Aarnikoivu et al. 2021, Panayidou and Priest 2021, Pointon-Haas, Waqar et al. 2023).

With this assignment I wished to explore the interest for and value of supervised PhD peer groups at the Department of Neuroscience, UCPH.

Accordingly, the aim of this project was twofold: first, to gauge interest among PhD students at the Department of Neuroscience at University of Copenhagen (UCPH) in participating in a supervised peer group; and second, to explore whether such a model could enhance the doctoral experience and contribute meaningfully to student development. If effective, this model could be refined and developed into a voluntary course or support framework within the department.

Methodology

In the initial planning phase, I intended to conduct a pilot peer supervision group by recruiting students from within my immediate research environment. However, after discussing the project with both the Head of Department and the Head of the Graduate Programme of Neuroscience, the plan was adjusted to more accurately assess the relevance and feasibility of the supervised peer group model at a departmental level. As a result, I shifted from a local recruitment approach to a department-wide recruitment strategy where all PhD students affiliated with the the Department of Neuroscience, UCPH, were invited to participate in an anonymous poll to assess the interest in the concept and to volunteer to be part of a pilot supervised PhD peer group.

Study Designs and Recruitment of Participants

All 196 PhD students affiliated with the Department of Neuroscience at UCPH were invited via email. The email introduced the concept of the peer-support group and included a link to an anonymous poll (Microsoft Forms) to gauge interest in participating. The questionnaire was designed to be a low-effort commitment (1–2 minutes) with four brief items. These included: (1) current stage in the PhD (first year, second year, third year, > third year, or completed); (2) level of interest in participating in a peer-support group, with a range of predefined options; (3) size of the respondent's current research group (<5, 5–10, 10–15, >15 people); and

(4) an open-ended item inviting students to suggest specific themes they would like to work with in a peer group setting.

Besides offering insights into the general interest in supervised peer groups via the ananymous poll, the recruitment strategy was also designed to identify 6–8 students willing to commit to a pilot group. Students were informed that, if interested in joining the pilot peer group, they should sign up via email to confirm their participation. Participation was voluntary, and no prior experience with peer-support or group facilitation was required.

The peer group was designed to meet four times over a three-month period (tentative pre-scheduled dates from March–May 2025), with each session lasting 90 minutes.

Each session was to include facilitated discussions and simple group activities centered on rotating themes such as motivation, research momentum, well-being, and work-life balance. The structure was designed to encourage open, supportive dialogue without delving into specific research supervision or project mentoring.

Participants in the pilot peer group were expected to actively contribute to group discussions, reflect on shared experiences, and attend all sessions. At the end of the final session, participants would be invited to take part in a short evaluation session to provide feedback on the group experience.

A reminder email was sent out 10 days after the first email.

Analysis:

Overall interest in the concept of a facilitated peer-support group was evaluated based on both the total number of survey responses and the distribution of responses to closed-ended items in the anonymous poll. Associations between reported interest and two variables—(1) current stage in the PhD program and (2) size of the respondent's research group—were explored descriptively to identify potential patterns. In addition, qualitative responses regarding preferred discussion themes were synthesized using thematic grouping to identify recurrent or shared interests among participants. All analyses were descriptive and intended

to inform the feasibility and relevance of implementing a structured peer group model for PhD students.

Results

The most notable result from the present study was probably that not a single student volunteered to participate in the planned pilot peer group. Thus, while survey data could be used to assess general interest in the concept, the intervention itself was not carried out, and no conclusions could be drawn about the impact of participation on student well-being or academic experience.

A total of 31 PhD students (15% of the department's 196 doctoral students) completed the anonymous survey. Respondents represented all stages of the PhD journey, with the majority (64%) being in their first or second year (Figure 1A). The respondents also reported affiliations with research groups of varying sizes, with mid-sized groups of 5–10 people being the largest group (n=11, 35%) and group sizes of <5people, 10-15 people and >15 people being largely equally represented (N=6-7 responders, Figure 1).

Fig 1. Poll replies to: "How far along are you in your PhD studies?" and "How big is the research group you are affiliated to?"

Survey responses regarding interest in supervised peer groups were mixed but overall positive. Many students expressed a theoretical appreciation for the idea as 45% of respondents selected "I would like the option of joining an organized peer group" and 35% responded with: " I see the relevance of a peer group, but I already have my need covered". A smaller faction either preferred to seek out ther own peer groups or reported that they did not have a need for such a model (16%). A single individual responded, 'I would like to be part of an organized peer group'.

Qualitative responses (n=9) to the open-ended question about preferred discussion themes echoed known challenges in PhD education. Commonly mentioned topics included: work-life balance, time management, coping with uncertainty, interpersonal dynamics with supervisors, and career planning. These topics are consistent with those reported in the literature as key stressors during the PhD process, indicating that the themes proposed for the peer group were well-aligned with actual student concerns.
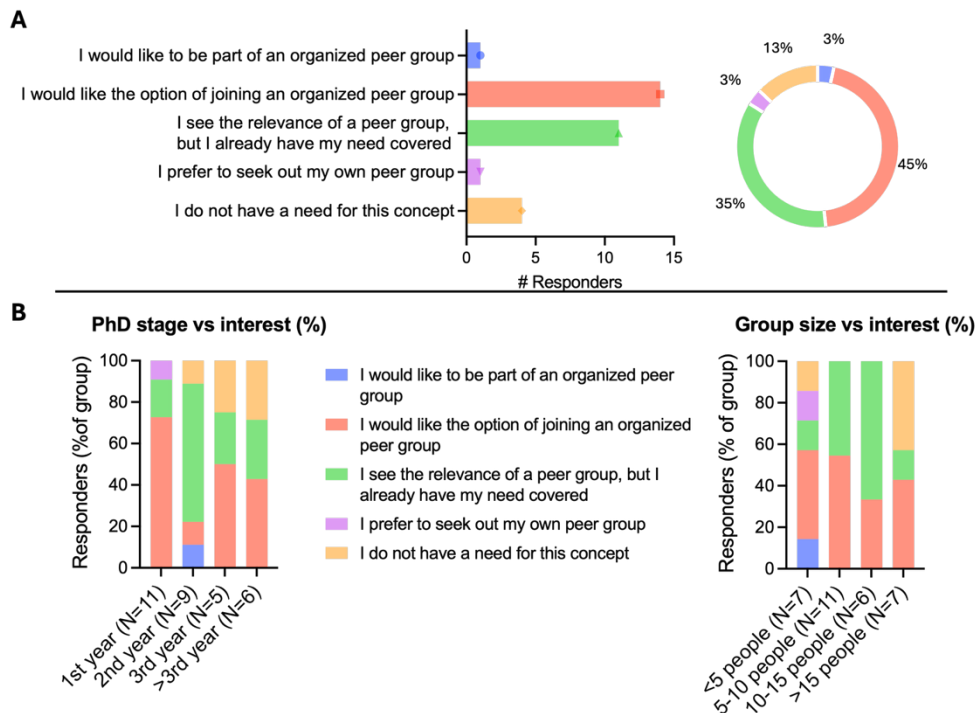

Fig 2. A: Poll replies assessing interest for the PhD peer group model. B: Relationship between the level of interest for the PhD supervised peer group model and PhD stage (left) and size of reseach group affliation (right)

Finally, associations between reported interest and two variables—(1) current stage in the PhD program and (2) size of the respondent's research group—were explored to identify potential patterns (Figure 2B). Although the sample size was modest and no conclusive patterns emerged, students in the earlier stages of their PhD (first and second year) appeared slightly more positive toward the concept and were less likely to indicate that they had no need for a peer group (Figure 2A).

When stratified by research group size, students from smaller groups (<10 members) seemed more inclined to express interest in peer support, whereas the majority of respondents who indicated that they "do not have a need for this concept" belonged to research groups with more than 15 members. This may reflect fewer opportunities for informal peer interaction within the immediate academic environment of smaller research groups. However, across all categories, a consistent gap emerged between positive attitudes toward the idea of peer groups and actual willingness to participate. This suggests that structural or motivational barriers may be influencing engagement, regardless of a student's stage in the program or research environment.

Discussion

There is a substantial body of research reporting on the struggles and challenges that PhD students experience, including feelings of isolation, time management struggles, motivational fatigue, and peer pressure (Barry, Woods et al. 2018, Evans, Bira et al. 2018, Sverdlik, C. Hall et al. 2018) and the protective effects of of supportive academic environments, such as good supervisor-student fit and peer support formats that foster psychological safety, shared reflection, and community belonging (Pyhältö, Vekkaila et al. 2012, Cornér, Löfström et al. 2017, Lorenzetti, Shipton et al. 2019, Panayidou and Priest 2021, Pointon-Haas, Waqar et al. 2023). The premise of the present study was to assess PhD students' interest in and potential benefit from participating in a supervised peer-support group.

Importantly, both the open-ended responses from students and the overall positive attitudes toward the concept of supervised peer groups from the anonymous poll suggest that PhD students at the Department of

Neuroscience, UCPH experience recognize many of the same structural and psychological challenges reported in the broader literature and are receptive to the idea of peer-based interventions. However, the results of this study also point to a noteworthy disconnect: despite theoretical support for the peer group model, there was virtually no actual willingness to engage in the proposed pilot supervised PhD- peer group. While this lack of participation hindered the original plan to evaluate perceived value, feasibility, and outcomes, it nonetheless provides meaningful insight. Specifically, the results highlight that while the perceived relevance of peer support is present, the motivation to act on it appears limited. Students from smaller research groups expressed slightly greater interest in the peer group format, likely reflecting fewer opportunities for informal academic and social interaction within their immediate environments. However, even among this subgroup, participation remained low.

A likely explanation for this discrepancy is a mismatch between the perceived benefits of joining the group and the perceived costs—in terms of time and effort. Additionally, structural factors within doctoral education may also play a role in shaping student engagement. In Denmark, PhD students operate under fixed-term contracts typically lasting three years. This time-limited structure places substantial pressure on students to fulfill multiple demanding roles—research, coursework, and teaching—within a compressed timeframe. Under such conditions, uncredited, community-based activities like peer support are often not prioritized, even if appreciated in principle.

Nonetheless, the generally positive attitude toward the idea of supervised peer groups warrants reflection on how the concept might be redesigned or reframed to better align with PhD students' motivational and structural realities.

One avenue would be to engage supervisors in participant recruitment. If participation were encouraged or even recommended by supervisors, student engagement might increase. Although the present study did not evaluate the support from group-leaders for the supervised peer groups, the initiative was endorsed by both the Head of Department and the PhD school, suggesting structural buy-in. Creating a more

formalized framework around the initiative might also increase the students motivation to participate.

Another strategy to both create a formal framework around the supervised peer group and enhance student motivation would be to offer it as a credited PhD course. Providing ECTS points could raise the perceived value of participation and mitigate the opportunity cost. However, this raises important pedagogical questions: Should community-building and well-being initiatives rely on such extrinsic rewards? Or should institutions instead work toward fostering a culture where such initiatives are valued in their own right? In either case, clear and visible institutional support may be essential—not only to legitimize the time investment for students, but also to signal that peer support and well-being are taken seriously as critical components of academic development (Sverdlik, C. Hall et al. 2018, Lorenzetti, Shipton et al. 2019, Gold, Jia et al. 2021).

One could also view the results through the lens of Self-Determination Theory (Deci and Ryan 2012), which posits that motivation to engage in activities depends on satisfying three basic psychological needs: autonomy, competence, and relatedness (Deci and Ryan 2012). The proposed peer group clearly aimed to support relatedness by fostering openness and shared experience among peers and the voluntary nature of the group and student-driven discussions offered a considerable degree of autonomy in terms of participation and content. However, the focus was reflective and experience-based, and the potential competencies gained were not explicitly framed as skill-building, which may not appeal to students under time pressure or unsure how to approach self-directed growth. Moreover, students may have perceived that joining such a group would implicitly signal they were "in need" of support—potentially undermining their sense of autonomy and self-direction within a high-performance research culture.

Finally, this study has several limitations. The study was confined to one department; attitudes may differ across faculties or disciplines. The low response rate (15%) also limits generalizability and raises concerns about self-selection bias as respondents may represent a subgroup of students who were already more reflective or positively inclined toward peer support. Furthermore, the survey did not collect demographic data,

which prevents analysis of whether interest varied by gender, nationality, or other dimensions that might influence participation and responses.

Conclusion

Although the idea of supervised peer groups was met with conceptual support, actual participation was non-existent. This highlights a gap between abstract endorsement and behavioral commitment—likely shaped by structural constraints, perceived effort, and lack of tangible incentives. If peer support is to become a meaningful part of doctoral education, institutions may need to reconsider how such initiatives are framed, incentivized, and embedded within the PhD experience.

References

Barry, K. M., M. Woods, E. Warnecke, C. Stirling and A. Martin (2018). "Psychological health of doctoral candidates, study-related challenges and perceived performance." Higher Education Research & Development 37(3): 468-483.

Bazrafkan, L., N. Shokrpour, A. Yousefi and N. Yamani (2016). "Management of Stress and Anxiety Among PhD Students During Thesis Writing: A Qualitative Study." Health Care Manag (Frederick) 35(3): 231-240.

Cornér, S., E. Löfström and K. Pyhältö (2017). "The Relationships between Doctoral Students' Perceptions of Supervision and Burnout." International Journal of Doctoral Studies 12: 091-106.

Deci, E. L. and R. M. Ryan (2012). "Self-determination theory." Handbook of theories of social psychology 1(20): 416-436.

Evans, T. M., L. Bira, J. B. Gastelum, L. T. Weiss and N. L. Vanderford (2018). "Evidence for a mental health crisis in graduate education." Nat Biotechnol 36(3): 282-284.

Fried, R. R., M. A. P. Atkins and J. D. Irwin (2019). "Breaking Grad: Building Resilience Among a Sample of Graduate Students Struggling with Stress and Anxiety via a Peer Coaching Model – An 8-Month Pilot Study." International Journal of Evidence Based Coaching & Mentoring 17(2): 3-19.

Gold, J. A., L. Jia, J. P. Bentzley, K. A. Bonnet, A. M. Franciscus, M. S. Denduluri and L. T. Zappert (2021). "WISE: A Support Group for Graduate and Post-Graduate Women in STEM." Int J Group Psychother 71(1): 81-115.

Lorenzetti, D. L., L. Shipton, L. Nowell, M. Jacobsen, L. Lorenzetti, T. Clancy and E. O. Paolucci (2019). "A systematic review of graduate student peer mentorship in academia." Mentoring & Tutoring: Partnership in Learning 27(5): 549-576.

Neves, J. and N. Hillman (2017). Student Academic Experience Survey 2017, Higher Education Academy and Higher Education Policy Institute.

Neves, J. and R. Stephenson (2023). Student Academic Experience Survey 2023. Higher Education Academy and Higher Education Policy Institute, 2023.

Nokkala, T., M. Aarnikoivu and J. Kiili (2021). "Multidisciplinary Peer-Mentoring Groups Supporting Knowledge Sharing in Doctoral Education." Scandinavian Journal of Educational Research 66(5): 865-878.

Panayidou, F. and B. Priest (2021). "Enhancing postgraduate researcher wellbeing through support groups." Studies in Graduate and Postdoctoral Education 12(1): 42-57.

Pointon-Haas, J., L. Waqar, R. Upsher, J. Foster, N. Byrom and J. Oates (2023). "A systematic review of peer support interventions for student mental health and well-being in higher education." BJPsych Open 10(1): e12.

Pyhältö, K., J. Vekkaila and J. Keskinen (2012). "Exploring the Fit between Doctoral Students' and Supervisors' Perceptions of Resources and Challenges vis-à-vis the Doctoral Journey." International Journal of Doctoral Studies 7: 395 - 414.

Sverdlik, A., N. C. Hall, L. McAlpine and K. Hubbard (2018). "The PhD Experience: A Review of the Factors Influencing Doctoral Students' Completion, Achievement, and Well-Being." International Journal of Doctoral Studies 13: 361-388.