



TEAM SUPERVISION OF DOCTORAL STUDENTS: A QUALITATIVE INQUIRY

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ABSTRACT

Aim/Purpose	The aim of this study is to contribute to current knowledge of team supervision. Specifically, we examine the relationship between main supervisor and co-supervisor regarding credibility in the division of roles and responsibilities within supervision teams.
Background	The overall intention of this article is to provide more information about the dynamics in the relationship between supervisors and to identify and describe the mechanisms that support the doctoral students in their endeavor for doctorateness.
Methodology	A qualitative descriptive approach combined with a thematic analysis is used to analyze in-depth interviews with ten supervisors working in five different doctoral supervision teams.
Contribution	The body of literature in the field of doctoral supervision at Norwegian universities is scarce. Moreover, the supervisor perspective has received less attention than the doctoral student perspective. We contribute to reduce this knowledge gap by bringing forward the voices of five supervisor teams at three different universities.

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Findings	The informants of this study reported that the responsibilities within their respective supervisor teams were clarified and well understood. There was a unanimous agreement that the main responsibility of the supervisor process lays with the main supervisor. Furthermore, it was claimed that this main responsibility includes both monitoring progress, ensuring feasibility, and acting if something is not going according to plan. Our results clearly support the fact that there is power imbalance within the teams, but this does not seem to lead to any conflicts in our sample. Although the power dynamics took on a hierarchical form as opposed to a horizontal form, none of the informants mentioned conflicts related to division of responsibility.
Recommendations for Practitioners	This paper invites others to consider their learning journey as well as their experience and reflection of the relationship between main supervisor and co-supervisor within supervision teams.
Recommendation for Researchers	The study provides a framework for exploring power dynamics in the relationship between main supervisor and co-supervisor regarding the division of roles and responsibilities within a supervisory team from different institutions and academic fields.
Impact on Society	Providing better team supervision for doctoral students is crucial for creating doctorateness. Clarity about division of responsibility and power is of crucial importance for the well-functioning of supervisor teams.
Future Research	We recommend future research to examine whether the findings presented here could be replicated in other supervisory contexts. New studies should aim to use additional data collection approaches such as focus groups, including doctoral students, as well as obtaining data via survey approaches. Future research could benefit from a multi-pronged data collection approach, which was not feasible within the current project.
Keywords	team supervision, power dynamics, responsibility, academic competencies, doctoral programs

INTRODUCTION

The quality and the quantity of doctoral supervision have been identified as central determinants of the doctoral journey (Cornér, Löffström, & Pyhältö, 2017). Although supervision receives increased attention, the candidate perspective is more often highlighted than supervisor perspectives (Guerin, Kerr, & Green, 2015). Over the past decades team supervision has become more common (Guerin et al., 2015; Taylor, Kiley, & Humphrey, 2018), and across Norwegian universities team supervision is widely practiced in doctoral study programs. The general idea seems to be that dyadic supervision is recommendable in higher education due to the growth of interdisciplinarity of doctoral theses that demand a wider range than a single supervisor can provide (Watts, 2010). However, as Watts (2010) emphasizes there are both benefits, and risks associated with team supervision, such as increased complexity for both doctoral students and supervisors. Nevertheless, there is evidence that functional team supervisory relationships which embed the power dynamics between the respective parties contribute not only to the timely completion of studies, but also to satisfaction with the doctoral program (Pyhältö, Vekkaila, & Keskinen, 2015; Robertson, 2017; Zhao, Golde, & MacCormick, 2007). Hence, team supervision of doctoral students will add new dimensions and complexities that impact the functionality of the team. According to Robertson (2017), trust is a key component in successful and high-quality team collaborations of doctoral student supervision.

Despite the entry of supervisor teams, the immense increase of higher degrees in both US and non-US context has drawn a focus towards cost efficiency drives in which supervisors are 'often blamed

for unsatisfactory completion times and high withdrawal rates' (Bastalich, 2017, p 1145). In a critical review of higher education literature on doctoral supervision published in the past 20 years within the UK, Australia, Sweden, and the Netherlands, Bastalich (2017) has summarized distinctive pedagogical perspectives with necessary competencies among both the supervisors and the doctoral students that are vital for the research context, learning, and curriculum in higher degrees. Bastalich is quite worried for what she is naming the efficiency gaze, and this is a problem that has put pressure on doctoral students and supervisors and their relationship.

According to Bastalich (2017) there is a need for administrative regulation, educational skill improvement or perhaps emotional management for protecting doctoral supervision. Such protection is certainly warranted for Norwegian universities where there is increasing emphasis on co-supervision and supervisory panels due to limited resources available for supervision. Åkerlind and McAlpine (2017) request pedagogical improvements in doctoral education and they call for more research on supervisory teams that examine the extent to which supervisors clarify their roles and their views of doctoral purpose. Such clarifications may contribute to enhance the doctoral education and professional development within the team, which in turn may increase the doctoral students' likelihood for achieving doctorateness (Åkerlind & McAlpine, 2017).

The term doctorateness or defining the concept of doctorateness has lately been subject for attention, and Poole (2015) claim that doctorateness is a young elusive concept in recent doctoral education literature. Several studies (e.g., Denicolo & Park, 2013; Park, 2007; Wellington, 2013) have highlighted the essence of doctorateness stating the term needs to be more firmly conceptualized. According to Yazdani and Shokooh (2018) doctorateness remains an immature unclarified concept referred to as a common quality for all doctoral awards. Further they claim that conceptualization of this concept requires a basic understanding of the underlying attributes of doctorateness. By including the students' necessary skills and pledge in doctoral education they define doctorateness as (Yazdani & Shokooh, 2018):

A personal quality, that following a developmental and transformative apprenticeship process, results in the formation of an independent scholar with a certain identity and level of competence and creation of an original contribution, which extend knowledge through scholarship and receipt of the highest academic degree and culminates stewardship of the discipline. (p. 42)

The clarification of the concept doctorateness provided by Yazdani and Shokooh (2018) may have implication for practice and policy of doctoral education in general and, specifically, for team supervision panels in practice. Still, there is a gap in our understanding of how team supervision complementary competencies in the relationship between supervisor and co-supervisor function and are associated with developing doctorateness and completion of the studies among doctoral students. Therefore, the aim of this study is to contribute to current knowledge of team supervision. Specifically, we examine the relationship between main supervisor and co-supervisor regarding credibility in the division of roles and responsibilities within the supervision team. The overall intention of this article is to provide more information about the dynamics in the relationship between supervisors and to identify and describe the mechanisms that support the doctoral students in their endeavor for doctorateness.

THEORY

THE SUPERVISORY RELATIONSHIP

A functional supervisor-student relationship is one of the most important determinants of success in the doctoral journey. Doctoral students with fast completion times reports more involvement with their supervisors than those who take longer to complete their studies (Cornér et al., 2017; Lee, 2008). Further, central for the functional supervisory interaction is mutual respect, flexible adjust-

ment to the student's needs, clear communication between supervisor and student, and explicit strategies for progressing towards the doctoral degree (Halse & Malfroy, 2010). Additionally, frequent supervision and a good match between supervisors' and doctoral students' perceptions of supervision has been associated with a reduced risk of dropout and increased satisfaction (Pyhältö et al. 2015).

Further, Pyhältö et al. (2015) argue that doctoral students consider personal supervisory interaction particularly important and benefit from the opportunity to use different resources, such as supervisory teams. A constructive supervisory relationship, frequent meetings, a relaxed ambience during meetings, and a sympathetic and caring attitude towards the supervisee have been associated with good progress and satisfaction within doctoral studies (Cornér et al., 2017; Pyhältö et al., 2015; Zhao et al., 2007). Communication problems, a lack of professional expertise, and power conflicts between supervisor and doctoral student have been shown to negatively impact the doctoral experience (Ismail, Majidb, & Ismail, 2013; Robertson, 2017). Hence, the quality of the supervisory relationship influences the students' satisfaction with the doctoral process (Zhao et al., 2007) and since conflicts between a supervisor and a doctoral student may occur the guidelines for doctoral studies at Norwegian universities recommend supervision by a primary supervisor and at least one co-supervisor.

TEAM SUPERVISION

The increasing frequency of team supervision at Norwegian universities may be considered a result of a forced development since government funding models on completion rates and completion time has exerted pressure on institutions. Robertson (2017) suggests that team supervision may be offering a safety net in response to concerns of risks associated with traditional dyadic models of supervision where a single supervisor works with a single doctoral student. However, she emphasizes that team supervision embeds power dynamics between the main supervisor, co-supervisor, and the doctoral student. By understanding how power functions and the types of power available in each team mode, supervision experiences for all parties may be more positive and one may avoid downsides in the supervisory team (Robertson, 2017). Moreover, several beneficial issues in team supervision have previously been highlighted in the literature. Watts (2010) claims that the growth of interdisciplinarity of doctoral thesis demands a wider range of expertise both in the discipline and in methodology, and team supervision is more likely to provide this expertise than a single supervisor. Maritz and Prinsloo (2015) suggest that novice supervisors, often the co-supervisor, may undergo a kind of apprenticeship in a supervisory team and that this process encultures and trains them for becoming main supervisors.

Robertson (2017) highlights the importance of forming teams that will work most productively for all individuals during the sustained and intensive process of the doctoral journey. Nevertheless, Guerin and colleagues (2015) emphasize that there is no one correct model of supervision that can be forced upon doctoral pedagogy regarding team supervision. Therefore, as Robertson (2017) argue, the supervisory team needs to be structured to suit the individuals, the topic, and the context of recruitment. Robertson (2017) further points out that 'the pedagogy is strongly influenced by the team structure, drawing on the expertise and dispositions of individuals and their preferred approaches and working patterns' (p. 360). This underlying pedagogical principle is of vital importance to both the supervisors as well as to the doctoral students. All members in a supervisory team have their own history and background and attend this presumably fruitful learning and developmental context with a body of knowledge and formed working patterns (Guerin et al., 2015). Furthermore, in this type of context there are certain expectations of behaviors and outcomes for supervisors and students, and as Robertson (2017) emphasizes, role models are particularly important for shaping the behaviors of the team members.

In the future, there are reasons to believe that team supervision will be conducted in different forms and to a larger extent in doctoral studies not only in Norway but in universities worldwide (Yazdani & Shokooh, 2018). Today many supervisors are dealing with work intensification on all fronts (Basta-

lich, 2017) and the pressure from universities and government to constrain completion times and boost completion rates is rising (Robertson, 2017). Therefore, supervisors need to find the most appropriate team mode and pedagogy to support their doctoral students with the resources they have available. Although team supervision is widely practiced, the resources to implement it are limited.

The body of literature in the field of team supervision of doctoral students at Norwegian universities is relatively small. To lesson this knowledge gap, we investigate the relationship between main supervisor and co-supervisor regarding the division of roles and responsibilities within supervisory teams. By interviewing supervisors in the same dyadic team about issues such as responsibility, working routines, and different agreements for the student to achieve doctorateness, we aim to increase scientific knowledge in the field of team supervision for doctoral students.

METHOD

The focus of this study is to develop an in-depth understanding of a phenomenon; the relationship between main supervisor and co-supervisor in doctoral supervision. Further we aim to provide more information about the dynamics in the relationship between supervisors to identify and describe the mechanisms that support the doctoral students in their effort for doctorateness. Therefore, a qualitative approach was selected. Qualitative approaches are incredibly diverse, complex, and nuanced (Holloway and Todres, 2003). According Braun and Clarke (2006), themes or patterns within data can be identified as inductive or “bottom up”, or theoretical or “top down”. According to Braun & Clarke (2006) one disadvantage with qualitative research in general and combined with a thematic analysis is limited interpretative power beyond mere description, unless it is used within an existing theoretical framework that anchors the analytic claims that are made. It is important to identify the theoretical propositions as part of the research design, and a more theory-based approach was considered most appropriate in the present study. A qualitative approach combined with a thematic analysis was selected as research design. We believe that this qualitative descriptive approach is robust enough to be used for conducting an introductory study on the novel phenomenon team supervision of doctoral students. The quality of the data depends on the amount of energy and time we as researchers spend on the process of data gathering and analysis (Vaismoradi, Turunen, & Bondas, 2013).

The data corpus consists of interviews with doctoral supervisors working in teams. The data is interpreted beyond its semantic content, with underlying ideas, practices, and assumptions about team supervision for doctoral students and ideas to improve it being examined. The analytical interest is the working relationship in these supervision teams and the data set is all occurrences in the corpus that are relevant to this topic. Thereby, we assume that we will be working with a ‘good quality’ data corpus and data set and argue that ‘good data’ are defined by a set of criteria regarding what, why, and how they were collected, and that offer rich, detailed and complex accounts of the topic. Good data do not just provide a surface overview of the topic of interest, or simply reiterate a commonsense account. Denzin and Lincoln (2011) argue that a thick description and prolonged engagement are preconditions establishing trustworthiness of a qualitative study. Both conditions are present in the current study and strengthen its trustworthiness. By providing theoretical propositions, illuminating the thematic analysis, as well as presenting adequate details of the context of the fieldwork in the present study, we allow the readers to decide credibility, confirmability, and transferability of our study (Shenton, 2004). Even if this type of qualitative research design does not provide statistical generalization from its results, as with quantitative research, it does provide the ability to generalize the results from a theoretical perspective, termed analytical generalization (Patton, 2002). The style of analysis employed was undertaken to establish validity and consistency of the data. Nevertheless, the relatively small numbers of participants in the study require carefulness in the interpretation process. . In our opinion, the empirical material saturates the phenomenon, meaning that it is enough to reveal the main aspects of team supervision for doctoral students, at least in Norwegian universities.

PARTICIPANTS

Ten different members of the scientific staff of the three universities that the authors represent volunteered to participate in this study. All these scholars work in five different dyadic relationship of a main supervisor and a co-supervisor for five different doctoral students. The five supervisory team have their function in higher education doctoral programs in the disciplines of social work science, nutrition science, sport science, music science, and nursing science. The supervisors are appointed according to regulations for doctoral studies at our respective universities. The regulations state, among other things, that a supervision assignment includes responsibility for accommodating specific needs as stated in the application, as well as monitoring dates for the commencement and end of the PhD-candidate period.

PROCEDURES

Following initial contact with the participants where the objectives of the study were explained, each participant was interviewed separately in different convenient facilities. A shortened version of the interview guide was sent the respondents beforehand. Each interview started with a presentation of the study where the participants were informed that this was an investigation into the nature of the relation between supervisors in a dyadic supervision team for a doctoral student. Permission to record and transcribe the interviews was obtained from all participants, and they were also informed that the interview protocols could be investigated and commented on by the participants at any time. Moreover, general probing and elaborating questions (see **Instrumentation** section) were used to explore all (newly) mentioned sources of information on supervision (Patton, 2002). The interviews lasted between 25 and 40 minutes and the audio-recordings were subsequently transcribed as textual files. The transcription-process resulted in a total of 72 pages of raw data (double spaced, font Times New Roman in Microsoft Office for Mac 2011, size 12).

INSTRUMENTATION

The interview guides were anchored in previous research literature examining the relation between supervisors in a dyadic supervision team for doctoral students (e.g., Robertson, 2017; Taylor et al., 2018; Watts, 2010) as well as guidelines and regulations for supervision of doctoral students in Norwegian universities. The guide consisted of four basic themes: 1) *Roles* (formal and anchored in guidelines), 2) *Routines* (informal), 3) *Interactions* (collaboration), 4) *Disadvantages* (conflicts).

The research questions preceded question about the formal agreements and guidelines in the supervisory team such as “Do you have an agreement in written of the different roles as main supervisor or as a co-supervisor?” or “Do you have a written agreement stating the different responsibilities within the supervisory team?”. After the introductory phase of the interviews the participant were asked to talk about their experience as a main or co-supervisor in the supervisory team, and they were asked about a) clarifying roles, b) role distribution, c) legitimization of their roles, d) boundaries including the doctorate student within the team, and lastly e) handling of potential conflicts. Based on the interview guide, the supervisors were exposed to general probing or assessment questions such as “Why is coordination and agreement in the supervision team necessary for a doctoral student to succeed in achieving doctorateness?” To ensure that the responses were sufficiently in-depth, the guidelines set out by Rubin and Rubin (1995) were followed. Elaborating questions including “Can you tell me more about the importance of this coordination and agreement in the supervision team for doctoral students to succeed in achieving doctorateness?” were assessed to identify and describe the different dimensions and components of successful team supervision put forward by the participants.

DATA ANALYSIS

The verbatim transcripts were read several times to obtain an overall sense of the data. Then a thematic analysis was undertaken (Braun & Clarke, 2006). To ensure validity and reliability in the process of analyzing the data the basic steps for reading verbatim transcripts put forward by Braun and Clarke (2006) were followed. They have provided a guide through the six phases of thematic analysis for qualitative research and described the process of each of the sixth steps (Braun & Clarke, 2006, p 87):

1. Familiarizing yourself with your data: Transcribing data (if necessary), reading and re-reading the data, noting down initial ideas.
2. Generating initial codes: Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code.
3. Searching for themes: Collating codes into potential themes, gathering all data relevant to each potential theme.
4. Reviewing themes: Checking if the themes work in relation to the coded extracts (Level 1) and the entire data set (Level 2), generating a thematic ‘map’ of the analysis.
5. Defining and naming themes: Ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells, generating clear definitions and names for each theme.
6. Producing the report: The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of selected extracts, relating back of the analysis to the research question and literature, producing a scholarly report of the analysis.

Further, Clarke and Braun (2015) emphasize the active role the researcher always plays in identifying patterns/themes, selecting which are of interest and reporting them to the reader. In accordance with Clarke and Braun’s (2015) recommendation we decided to analyze the data set based on the following three overarching themes that emerged from the analysis: *Responsibility, Supervision approaches, and Academic competencies* of team supervision for a doctoral student. The extent to which a theme is considered “key” is related to whether it captures something important in relation to the overall research question (Braun & Clarke, 2006; Clarke & Braun, 2015). According to Tracy (2010), good qualitative research delves beneath the surface to explore and unearth issues that are assumed and implicit and have become part of the average participant’s common sense. The raw data or single phrases / statements were categorized into sub-themes related to the three main themes (see figure 1), and the analysis was presented to the research team, where a collective agreement was reached upon the main dimension, sub-dimension and data extracts. To achieve this analytical agreement, all comments related to the complementary competencies and expertise of the supervisory teams were extracted from the qualitative data pool of the project for further scrutiny.

The responses on complementary competencies and expertise were inspected further, allowing us to specifically identify descriptions on team supervisory support associated with supervisors’ expertise in academic competencies. For instance, responses on supervision approaches were excluded in this step, leaving the participants’ comments on supervisors’ academic competencies for illustration in the sections to follow. In the last step Microsoft Excel was used to organize and sort data in emerging primary and secondary categories. This process was repeated to gain a better overview to ensure that the most exact meaning units and themes of descriptions were found (Malterud, 2012). The assurance of the capturing of the full narratives of the participants to reduce any misunderstandings in our analysis may be considered a reliability procedure that contributes to the trustworthiness of our findings (Creswell, 2007; Shenton, 2004).

In compliance with ethical requirements the participants have been anonymized and other identifying information has been removed.

RESULTS

The experiences of the five different supervisor teams for doctoral students appeared to follow a similar pattern or sequence of events. After the data analysis three main themes emerged; 1) *Responsibility*, with sub-themes: *Common Understanding*, *Progression*, and *Power Dynamics*, 2) *Supervision approaches*, with sub-themes: *Degrees of Details and Structure*, *Reflection and Doctorateness*, and *Closeness*, and 3) *Academic competencies*, with sub-themes: *Knowledge and Expertise*, *Overview versus Specificity*, and *Availability*, as illustrated in Figure 1. These three main themes compliment and constitute the overarching theme of this study, namely *Complementary competencies in the supervision team* for doctoral students. The result section will provide an overview over the three main themes, including sub-themes, accompanied by illustrating quotations.

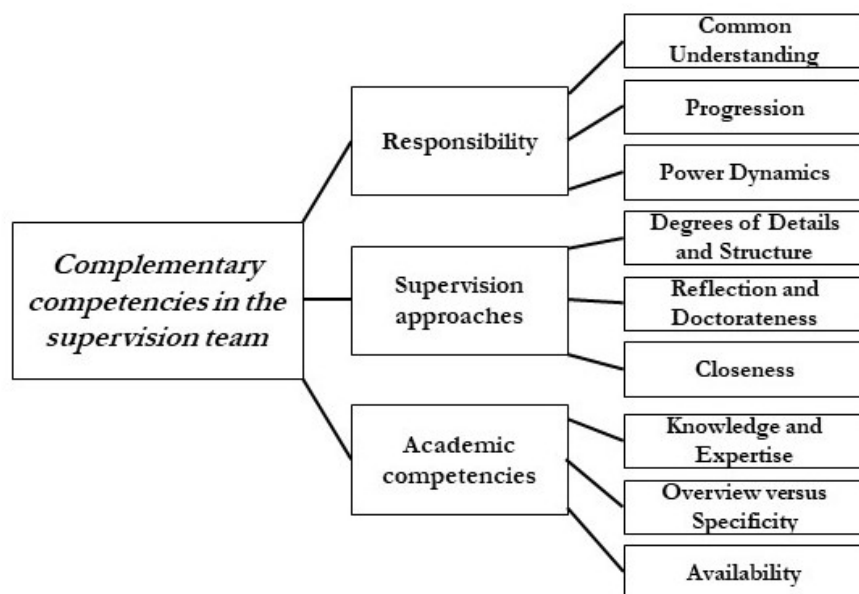


Figure 1. Final overarching theme, *Complementary competencies in the supervisor teams* and the three main themes and sub-themes that emerged from thematic analysis of the data.

FROM THEME TO SUB-THEME

The data set where the three main themes emerged from were further coded according to the theoretical approaches used for forming the interview guide. This theoretical coding was used on the data set separately for every of the five different supervisory team to identify possible sub-themes within the data set for the different dyads. After the process of generating and searching for sub-themes in the data set of the different supervisor teams the process of reviewing themes started. This two-level process (see Braun & Clarke, 2006) generated a thematic map of the analysis that was used for defining and naming sub-themes across the data set of the five different supervisor teams. Due to the rather time-consuming process of noting similarities and differences of experiences across participants, it enabled us to identify and describe different sub-themes within the different main themes.

Table 1 illustrates an example of the data set of one supervisor team under the main theme Responsibility. Based on the theoretical coding and the different steps for a thematic analysis (see data analysis in the Method section) the sub-theme Common understanding emerged.

Table 1. Illustrating the data set for the main theme Responsibility for one of the five different supervisor teams in the current study and the analytic process for defining and naming the sub-theme Common understanding

Theme: <i>Responsibility</i>	Sub-theme: <i>Common understanding</i>
<p>'I have a formal responsibility and I as main supervisor ultimately has the overall responsibility. It is the formal side. That's it, but then it's more that this is a collaboration, I think. And [STUDENTS NAME] is clear that I'm the supervisor and that [CO-SUPERVISORS NAME] is assistant supervisor, but there is nothing else to it than that I fit in the formal things for [STUDENTS NAME] and I do like that it is in place. In many ways we are working equally on this, but in different ways when we specifically work with the substance of this project.' <i>Informant 1</i></p>	<p><i>Informant 1</i> experience by virtue of being the main supervisor, experiences that he has a formal responsibility for the PhD student and for the student to complete the formal requirements related to the PhD program and that he has a necessary progress towards an end-product. The main supervisor believes there is a common understanding of the role clarification, including the doctoral student, within the supervisory team.</p>
<p>'Yes, we have really clarified a role distribution. Basically, we have placed the responsibility for the methodological and statistical in with as assistant supervisor. And by virtue of the main supervisor, the professor, has the main responsibility for the project and that may be thematic almost what is being done then. I am somewhat unsure if this was decided before the candidate was assigned and started the doctoral program.' <i>Informant 2</i></p>	<p><i>Informant 2</i> experience by virtue of being co-supervisor a relatively clear division of roles in terms of who has the main responsibility for the implementation of the PhD project. He has a common understanding for his role as co-supervisor and the different roles in the supervisory team appears according to him defined and understood by the doctoral student.</p>

The thematic analysis approach described above was, of course, applied in the analysis of the two other main themes, *Supervision approaches* and *Academic competencies*, that emerged from the analysis of the data set. In the following, results will be presented by introducing a figure illustrating a main theme with its sub-themes. The quotations set forth under the figure are meant to illustrate both the main theme and the associated sub-themes. This simplifying presentation of results from the thematic analysis conducted are meant as clarification of the claims put forward in the construction of the figure.

THEME: RESPONSIBILITY WITH SUB-THEMES

Overall, the informants in the present study expressed a general perception that the main responsibility for supervision of the doctoral student lies with the main supervisor. Within this responsibility there was a common understanding for how the responsibility was distributed within the team to ensure progression for the doctoral student. The supervisors had a shared perception of the power dynamic, and how this not only contributed to a balance but was also necessary for the functioning of the team. If challenges arise in the supervisory team there was a mutual understanding that the main supervisor is supposed to act. However, even if the main supervisor is in charge, the co-supervisor may speak up. The following quotations may illustrate the different findings in sub-themes and how these experiences are interwoven within the main theme:

Common understanding

“The main-supervisor is most competent and has the final word, but I feel that I'm being listened to. Although I would not overrule her, I would argue for my views if I experienced something unfair”.
[co-supervisor]

“I have a formal responsibility, and I as a main supervisor, ultimately, have an overall obligation. It's the formal side. That's it, but then it's more that this is a collaborative project, I think.” [main supervisor]

Progression

“I see it as my responsibility to ensure that the research protocol shows a feasible project including a proper research approach”. [main supervisor]

“It is obvious that the main supervisor has the main responsibility and should monitor the progress of the student”. [co-supervisor]

Power dynamics

“Yes, we have actually clarified a role distribution. Basically, we have placed the responsibility for the methodological and statistical in with me as co-supervisor.” [co-supervisor]

“If there are disagreements, it is the main supervisor who has the final word” [co-supervisor]

Noteworthy, in general it seems that the division of responsibility was not written down or even talked about, but rather something that was implicit, or taken for granted. The informants used terms as “it is obvious who has the main responsibility” and “I see it as my responsibility”. There appeared to be a common understanding in all the supervisor teams. It is nevertheless striking that only one of the informants said that they had explicitly clarified the role distribution.

THEME: SUPERVISION APPROACHES WITH SUB-THEMES

When the informants were asked about the nature of supervision in the supervisory team there was a clear understanding that the members (including the doctoral student) of the supervision team possess different qualities and, therefore, different supervisory approaches were used. Interestingly, one supervisor explained that their different approaches for supervision were the reason why they changed roles in the supervisory team. The following quotations may illustrate the different findings in sub-themes and how these experiences are interwoven within the main theme:

Degrees of details and structure

“The interaction works fine. A challenge is that I am more specific, and the main supervisor is less specific, a bit more ‘fluid’. Which can be frustrating. However, it is a good thing that we know each other and respect each other.” [co-supervisor]

Reflection and doctorateness

“We have different approaches. I try to ‘lift the discussion’ and discuss on a systematic level. The candidate has the structure him/herself. The co-supervisor has more specific suggestions”. [main supervisor]

“My supervisor was an experienced professor, I learnt from her. If the student asks me something, I ask; what do you think? I have to make the student responsible of what he/she is doing.” [co-supervisor]

Closeness

“The PhD-student needs supervision on how to work as a candidate. We have slightly disagreed on the approach. Both agree that a close monitoring is important. We always write protocols and logs of our meetings and they are binding. We have different supervisory approaches. She is more structured and ‘watches over’ the candidate, The PhD-candidate must learn how to work independent of us. It must be a process.” [main supervisor]

“The main supervisor has an obligation and has to take action if something’s going wrong”. [main supervisor]

THEME: ACADEMIC COMPETENCIES WITH SUB-THEMES

For most of the five supervisory teams in the current study both supervisors have participated in all supervisions, resulting in them becoming more equal, although the main supervisors have, in general, more competence and expertise within the field of discipline. Nevertheless, the roles of main and co-supervisor can vary according to the different competencies they inhabit. The following quotations may illustrate the differences in academic competences, and how the supervision teams are dividing roles in the best interest for the doctoral student:

Knowledge and expertise

“The co-supervisor has a special competence on method that I don’t have, and that will be central for supervision on method for one of the articles. I will be learning this myself, at the same time.”
[main supervisor]

“Co-supervisor is better on writing articles. Method is a common area. We support each other.”
[main supervisor]

“As a co-supervisor I will primarily contribute on writing articles. I’m more familiar with the article format than the main supervisor is”. [co-supervisor]

Overview versus specificity

“As a co-supervisor my role is to a large degree to be a partner in discussions, choice of theory, and practical academic writing.” [co-supervisor]

“The candidate knows his/her field very well and is very independent. Now, I mostly contribute in helping to keep an overview, and asking critical questions, and that the candidate handles well. [co-supervisor]

Availability

“I know we have had conversations where the candidate has been given the opportunity to use us as he/she wishes. The boundaries between these roles are quite fluid. In many ways the legitimization of my role is done based on a very concrete challenge.” [co-supervisor]

DISCUSSION

The informants of this study reported that the responsibilities within their respective supervisor teams were clarified and well understood. There was a unanimous agreement that the main responsibility of the supervisor process lays with the main supervisor. Furthermore, it was claimed that this main responsibility includes both monitoring progress, ensuring feasibility, and acting if something is not going according to plan. According to research in the field of doctoral studies and doctoral supervision, power imbalance and power conflicts between supervisors within the team is a frequent challenge (e.g., Guerin, Kerr, & Green, 2015; Ismail, 2013; Robertson, 2017). Our results clearly support the fact that there is power imbalance within the teams, but this does not seem to lead to any conflicts the participants in our sample. Although the power dynamics took on a hierarchical form as opposed to a horizontal form, none of the informants mentioned conflicts related to division of responsibility. A hierarchical power dynamic entails that one of the supervisors inhabits a dominant role, whereas in the horizontal form power is shared (Guerin, Green & Bastalich, 2011). The avoidance of conflict connected to this aspect of supervision may be due to the clear understanding and division of responsibilities between main- and co-supervisor among all our informants.

Whereas there was agreement about the division of responsibility among our informants, the preferred supervisor approaches within the teams varied to a large degree, and the potential for conflict seemed more prominent in this area. The variations mainly featured around different degrees of being specific and detailed when giving advice to the doctoral student, having a systematic and struc-

tured approach, and the degree to which they monitored and watched over the student. It is inevitable that the team members' behavior and approach regarding supervision is influenced by their own background, history, and knowledge (Guerin et al., 2015; Robertson 2017; Yazdani & Shokooh, 2018), and thereby differs between individuals. Some of our informants reported disagreement about the best supervision approach, and in several of the five different supervisory teams the main supervisor had a critical thinking approach (Lee, 2008) while the co-supervisor had a more functional approach (Lee, 2008). The results also detected that in the supervisory team where the roles as main and co-supervision were swapped, the new main supervisor took a more functional and authoritarian approach, although she viewed her own approach as more emancipatory (Lee, 2008). The fact that the supervisors within the team know each other and respect each other was specifically mentioned as a positive aspect that seemed to mitigate the diversity in approaches. In our study, the main supervisor and the co-supervisor of each team worked at the same department in their universities. It is reasonable to believe that differences in supervisor approaches is more challenging if the supervisors within the same team do not know each other well, and especially if they are situated at different institutions (Åkerlind & McAlpine, 2017; Bastalich, 2017).

In addition to variations in approaches, our informants also talked about variations in academic competencies within the supervisory teams. Supervisors in the same team often had different areas of expertise, like article writing or specific methodological competence. Unlike differences in supervisor approaches, diverse competences were not reported to be a challenge. In fact, diversity in these academic competencies was regarded as complementary for the interactions within the supervisory team and, hence, perceived as an advantage. The different supervisors in the current study emphasized that due to these complementary competencies more reflection and thereby also improvement of the supervision occurred. Such reflexive processes within a supervisory context lead us to believe that the supervisors not only clarified the roles within their team but also chiseled out the purpose of doctoral education (Åkerlind & McAlpine, 2017). There are reasons to believe that this development in doctoral educational supervision in turn initiate an achievement in doctorateness (Yazdani & Shokooh, 2018) among the students of the supervisory team in present study. This presumed understanding of doctorateness among our participants may contribute to forming a base for optimal functioning of supervisor teams. Our findings are also in line with the literature in the field, claiming that the nature and form of today's doctoral thesis demands a wider range of expertise and skills than a single supervisor is likely to inhabit (Watts, 2010). While it is established that doctoral dissertations are becoming increasingly interdisciplinary (Watts, 2010), it is also likely that the format of articles, instead of monographs, require a more genre specific competence that is better achieved with the use of team supervision.

CONCLUSION AND RECOMMENDATIONS

Overall, the relationship between main supervisor and co-supervisor in our study appeared to be fruitful and allowed them to function as a dynamic dyadic team. Their roles, responsibilities, and competencies were largely complementary as opposed to overlapping. The area that seemed most challenging was supervisor approaches. The different supervisors preferred different approaches, and this could lead to some tensions and frustration. A stronger awareness of the preferred approach for each member, and how this diverges from the approach of other team members could make the cooperation easier. Different approaches did, however, not create unmanageable problems in the teams included in our study. A reason for the well-functioning collaboration, despite differences, can be related to the fact that there was a clear understanding about power imbalance and division of responsibilities. All informants maintained that if there was disagreements or conflicts, the main supervisor had the authority to make decisions. According to Phillips and Pugh (2000), a common difficulty associated with team supervision is lack of willingness among the supervisors to take the overall view of the project to consider its appropriateness. This was not a problem among our informants since it was a unison perception that this responsibility primarily fell on the main supervisor. Based on our findings, clarity about division of responsibility and power is of crucial importance

for the well-functioning of supervisor teams. Our informants seemed to have a common understanding, even though this was not necessarily discussed or made explicit. This may not be the case if the different members of the team, as opposed to our informants, are from different institutions, academic fields, or cultures. Thus, we recommend that roles and responsibilities are explicitly discussed, written down, and formalized among all members in the team, including the doctoral student, in the beginning of the collaboration.

STRENGTHS AND LIMITATIONS

This study is not without its limitations that should be considered when interpreting the findings. The limited numbers of participants in this study require carefulness in the interpretation process. The thematic style of analysis employed (Braun & Clarke, 2006; Clarke & Braun, 2015) will, however, increase the validity and consistency of the data (Shenton, 2004). Further, it could be argued that the exclusivity and homogeneous population itself is a strength. Malterud (2001, 2012) claims that a study of six informants is enough to gain detailed descriptions of the phenomenon experienced by the informants. In our opinion, the empirical material succeeds in saturating the phenomenon examined, meaning that it is enough to reveal the main aspects of the relationship between main supervisor and co-supervisor in team supervision for doctoral students. Denzin and Lincoln (2011) argue that a thick description and prolonged engagement are preconditions establishing trustworthiness of a qualitative study. The strategic variation in the data generated from the ten participants in the present study should be more than adequate to gain detailed descriptions of the phenomenon experienced by the informants (Malterud, 2012).

All quotations used in this article were translated from Norwegian to English. To avoid possible limitations in the analysis due to language difficulties, the whole analysis process was completed in the original language (Van Nes, Abma, Johnson & Deeg, 2010). The findings in present study do not represent a diverse socio-economic group and a more heterogeneous population could provide insight into subcultural demands of doctoral students of different ethnicity and socioeconomic status. Nonetheless, the researchers' background and pre-understanding can be an advantage in qualitative research because of the access gained into the informant's everyday world (Kvale & Brinkmann, 2009). Even if qualitative empirical work is considered interpretative and thus may not always be generalizable, the information gained and presented in this study may be transferable through the interpretations of the reader (Alvesson, 2011; Dean, 2018). Qualitative data often faces criticism that the work is unreliable and invalid, and the challenge, that may also serve as a strength, is a reliance on the human instrument.

All participants are regularly involved in doctoral supervisor activities and they should be considered subject matter experts who possess both an inside and outside perspective on the research context (Palmer, Fam, Smith, & Kent, 2018). Future research may want to examine whether the findings presented here are replicated within a sample that includes other supervisory contexts. Accordingly, the study results could have been further explored by leveraging additional data collection approaches such as focus groups, including doctoral students, as well as obtaining data via survey approaches. Future research may benefit from a multi-pronged data collection approach, that was not conceivable within the current project.

Interviewing supervisors of doctoral students has provided us with a unique insight into current issues in team supervision. As a matter of course, it needs to be considered that these insights are based on a reconstruction of subjective impressions. Hence, the statements do not necessarily reflect actual realities and should be rather taken as explications of what supervisors think about themselves or how they would like to think about themselves. The qualitative approach, nevertheless, allows us to explore such subjective reflections, and we would like to claim that our qualitative reconstructions adds value to the scientific discussion on team supervision for doctoral students. Subsequently, in all modesty it can be concluded that our study of the supervisory team has revealed that doctorateness

is not all about the end-product. In addition, team supervision may ensure a constructive process of doctoral education and supervision necessary for achieving doctorateness.

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