

Research supervision as a mutual learning process: introducing salutogenesis into supervision using 'The Collegial Model'

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Summary

Research using salutogenic factors to promote health is extensive. Salutogenesis, and its core concept 'sense of coherence' (SOC), is a resource-oriented theory and framework, applicable in different contexts. Research combining health promotion and doctoral supervision in higher education is scarce. This article places research supervision in a broader context of sustainable working life by focusing on stress management. It is about health promotion in an area of research supervision, a new approach not described earlier. Research on supervision in general is extensive, focusing on co-generative mentoring, counselling and coaching. A new salutogenic model, 'The Collegial Model', is presented as an example of practical application. The aim of the present article is to introduce and discuss how the salutogenic theory and model of health can be applied to research supervision of postgraduate students. Knowledge about how SOC impacts health and learning has benefit from a systematic review on salutogenic research covering published papers from 1992 to 2003 and until today. 'The Collegial Model' examines fundamental characteristics of supervision related to ethics and sense of coherence: relations, communication, processes, reciprocity, reflection, learning, comprehensibility, manageability, meaningfulness and coherence. Principles for carrying out supervision 'the salutogenic way' are suggested. The conclusion is that doctoral supervision involves mutual learning processes between colleagues in the supervisory team. Supervision has to be theory driven, implying that supervisors could benefit from applying a salutogenic way of thinking and working, particularly in development of guidelines for research supervision.

Key words: research supervision, salutogenesis, conceptual model, health promotion, sustainable working life

INTRODUCTION

Research studies, in general, and work on a doctoral dissertation, in particular, can be a period of inspiration, learning, personal growth and success, but also of protracted stress and concern about not completing the studies/dissertation. Becoming a researcher means travelling a tough road, one on which supervision is

particularly important. According to Blackmore *et al.* the doctoral journey is (Blackmore *et al.*, 2013) characterized of hope and expectations, complexities and uncertainties as well as of reasonability and writing up. Many doctoral students report facing problems during their doctoral studies, particularly supervision-related

problems that negatively affect their well-being (Pyhältö *et al.*, 2012). Among female PhD students, wellbeing seems to be a multidimensional phenomenon; students have to be true to themselves, manage the sphere of influences they are in and try to balance conflicting requirements and expectations (Schmidt and Umans, 2014). These circumstances have an impact on health. PhD students in Belgium report an increased risk of developing depression during their doctoral studies (Levecque *et al.*, 2017). How the work was organized, among other things the supervisory leadership, seemed to be significantly associated with the prevalence of mental health problems among doctoral students. Given these findings, it is important to organize research supervision in such a way that learning processes promote health, i.e., healthy learning. Marshall, a lecturer and supervisor [(Marshall, 2013), p. 136], emphasizes the importance of maintaining a healthy perspective throughout the journey of the PhD—it is important, but it should not become your life. Salutogenesis, as a healthy learning process in the context of health promotion, has been described in detail elsewhere (Lindström and Eriksson, 2011; Baptista, 2015).

Research supervision is time consuming. Supervising doctoral students is challenging and demanding, involving, e.g., the research idea, research and study plan, methodology, cooperation with supervisors and student networks) (Fridlund, 2005). From the very beginning, supervisors have to critically review the doctoral student's research and study plan, asking whether it is possible to complete within the allotted time period. Is the chosen methodology the most appropriate? In an editorial, Fridlund highlighted the importance of cooperation (Fridlund, 2005) between the supervisor and the doctoral student. Supervisors generally have several doctoral students at once, and thus allotting time to each becomes essential.

A number of questions may be asked regarding the challenges discussed above: How can we create the best possible conditions for PhD students to maintain health and support their learning? How can we create a trustworthy relationship characterized by professionalism, one that allows doctoral students to rely on their supervisors? How can we make the working conditions and educational process meaningful, comprehensible and manageable for everyone in the supervision team? Are there research findings that can tell us something about research supervision based on a salutogenic framework? A literature search revealed that research related to salutogenesis was scarce. Therefore, the present aim is to clarify how we can work from a health promotion perspective using the salutogenic theory as our

theoretical framework for developing a new model of supervision: 'The Collegial Model'. The model is based on long personal experience of supervising students at different levels and reflection on what works. Here, experience is combined with deep theoretical and conceptual knowledge of the salutogenic theory (Eriksson, 2007, 2017; Mittelmark *et al.*, 2017). Vilkinas referred to doctoral students as (Vilkinas, 2008) colleagues, which comes close to the model presented here. The aim of the present article is to introduce salutogenesis as a theoretical framework for research supervision, arguing that supervision would benefit from assimilating salutogenesis.

VIEWS ON RESEARCH SUPERVISION

Institutional guidelines for supervision are scarce (Handal and Lauvås, 2005), as are models for theory-driven supervision (Halse, 2010). Thus, supervision would seem to be an activity in higher education that mainly takes place behind closed doors. However, previous research has shown that supervision can be perceived differently depending on which perspective is emphasized: the supervisors' or the doctoral students'. In a Swedish study, supervisors perceived their own roles as shifting, from being a coach or consultant to a mother (Holmberg, 2006). They seemed to have some difficulty fully understanding the differences between their roles, perhaps due to the lack of a common theoretical frame of reference. A supervisor may be, among other things, a guide, adviser, co-worker, tutor, supporter, leader, organizer and/or a friend. Määttä and Uusiautti suggested that knowledge [(Määttä and Uusiautti, 2016), p. 181], proficiency, will and actions are fundamental features of good supervision. Supervision appears to be based more on personal than on professional characteristics. Franke and Arvidsson described two structures of supervision (Franke and Arvidsson, 2011): research practice oriented or relationship oriented. In the first approach, the doctoral student is involved in the supervisor's research practice; in the latter whether the student lacks a clear connection with the supervisor's research. The transition from being supervised to supervising is demanding. Learning supervision involves a 'trial by fire', a term used to describe the experiences of newly graduated PhDs learning to do graduate supervision (Amundsen and Mcalpine, 2009). From the doctoral student perspective, good supervision is characterized by supervisors who are available for regular meetings, give timely feedback, possess in-depth scientific knowledge are open to students' professional experiences and flexible enough to adjust to students' particular circumstances (Baptista, 2015).

CONCEPTUAL FRAMEWORK: SALUTOGENESIS

Salutogenesis (Latin *salus* = health, Greek *genesis* = origin) is a framework that answers the question of what creates health (Antonovsky, 1979, 1987; Mittelmarmark *et al.*, 2017). The theory was introduced in the late 1970s by the medical sociologist Aaron Antonovsky. It focuses on people's resources and capacities instead of on their deficits and shortcomings. The core concepts in the theory are sense of coherence (SOC) and Generalized and Specific Resistance Resources for combatting stress (Lindström and Eriksson, 2005; Eriksson, 2017; Idan *et al.*, 2017). SOC is

a global orientation that expresses the extent to which one has a pervasive, enduring though dynamic feeling of *confidence* that (1) the stimuli from one's internal and external environments in the course of living are *structured*, predictable, and explicable; (2) the resources are available to one to meet the demands posed by these stimuli; and (3) these demands are challenges, worthy of investment and engagement. [(Antonovsky, 1987) p. 19].

The core elements of a salutogenic development are an orientation toward problem solving and the ability to identify and use the resources available in a health promoting manner (Lindström and Eriksson, 2005). The salutogenic evidence base shows that having a strong SOC promotes good perceived health, especially mental health (Eriksson and Lindström, 2006; Eriksson, 2007; Mittelmarmark *et al.*, 2017). This means that people with a strong SOC can better manage the stress caused by changes in working life, traumatic life events and, as in the present case, the stress caused by having to complete one's doctoral studies. Further, this also concerns one's ability to identify internal and external resources and use them in a health-promoting manner (Eriksson and Lindström, 2006). Moreover, it constitutes a way of thinking in terms of people's resources, a way of working, as well as a way of meeting and treating other people (Eriksson, 2017). Therefore, the main question during the supervision has to be: How can we create such good conditions that the doctoral student as well as the supervisors perceive they can manage the stressors they constantly face? At every stage of the supervision process, there is a need to consider and reconsider whether all of the on-going activities make sense.

THE COLLEGIAL MODEL OF RESEARCH SUPERVISION

The model, visualized in Figure 1, takes its starting point from a WHO core policy document: the Ottawa Charter

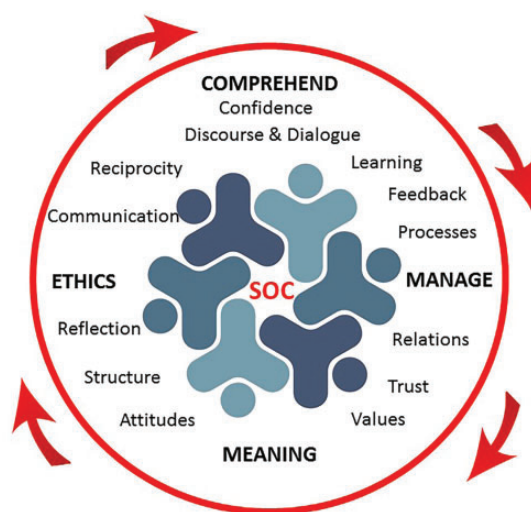


Fig. 1: The Collegial Model of research supervision.

for health promotion (WHO, 1986). Further, it is based on an extensive research synthesis on the impact of SOC for health (Eriksson and Lindström, 2006; Eriksson, 2007) and ongoing research on factors that promote health during protracted stressful situations (Mittelmarmark *et al.*, 2017), such as doctoral supervision (Eriksson and Lindström, 2006). Doctoral studies seem to entail long processes including ups and downs, having to face adversities and learning from failures and successes (Pyhältö *et al.*, 2012; Severinsson, 2015; Levecque *et al.*, 2017). Understanding how to create conditions that enable the student to maintain and promote health is therefore essential (Lindström and Eriksson, 2009). On the logo of the Ottawa Charter, the circle symbolizes coherence and context, in this case supervision. Placed in the middle of the circle are the supervisors and the doctoral student. Today, there is typically a main supervisor, whose colleagues serve as assistant supervisors. In the Collegial Model, all parties are seen more as colleagues or collaborators with specific knowledge than as assistants to the main supervisor. The supervisors and the doctoral student form a collaborative team; they have different kinds of knowledge and experience, all of which have the same value. This ethical foundation for research supervision is based on the salutogenic concept SOC. The supervisors have knowledge and experience the doctoral student needs, and the student has knowledge and experience essential to proper supervision.

Research on doctoral supervision has typically described an imbalance of power in the relations between the involved parties (Armitage, 2007; Doloriert *et al.*, 2012). However, the foundation of the present model is

that all parties see each other as equal partners in collaborative learning, parties who share the common goal of a completed dissertation. The responsibility rests on the supervisors, who as professionals are to use their power and legitimacy in a way that promotes cooperation with the doctoral student. This relationship has to be characterized by mutual trust and respect among all parties. Lack of confidence may destroy the entire process.

Research supervision is about relations (Severinsson, 2015). One can speak about the supervisor as a 'guru', a critical friend or a coach, about the imbalance of power in the supervisory team, and whether the relations are professional and/or personal (Handal and Lauvås, 2005, 2008; Holmberg, 2006; Severinsson, 2015). The foundation for good relations is constructive and positive communication founded on a positive attitudes toward others. To develop a good educational process, we must see the person we are supervising as someone with abilities and resources, someone from whom we can learn and gain new knowledge. In this way, the educational process becomes a symmetrical relation characterized by trust and confidence between supervisors and the doctoral student.

Much has been written about the dependency of the doctoral student and the imbalance of power between the parties (Doloriert *et al.*, 2012). However, a less frequent topic is supervisors' dependency on having capable doctoral students to carry out the research, thus enabling supervisors to build up their own qualifications. This means there is a mutual dependency between supervisors and doctoral students. Supervision is a process of mutual learning, not just teaching. The supervisors learn from the doctoral student and vice versa. When the dissertation is completed, the doctoral student has more in-depth knowledge of the subject than the supervisors do, and this is a natural development. A dilemma may occur when the doctoral student 're-drives' the supervisors in a specific research area, who must be able to manage the change in roles. Another problem, which is not affected by research, is when the doctoral student wants to leave his/her supervisors and 'try going it alone'. It may be typical for the collaboration to end at the thesis defense, but in more limited research areas, such as salutogenesis, close cooperation continues. This is a matter of balancing how close the cooperation should be, as the doctoral student may be thought to be 'clinging' to his/her supervisors. Staying in the same research environment may not be considered a merit. When does the student become an independent researcher?

Supervision also involves a process of reflection. It is therefore necessary to create an atmosphere and climate so good that the supervisory process promotes the health

of all parties. The best situation is a climate characterized by mutual understanding and great openness to investigating and developing the topic under study. Research on factors that promote health has shown that the feeling of context is important to maintaining health in stressful situations (Eriksson and Lindström, 2006).

A SOC is perceived when the educational process has a clear structure, enabling a better understanding of the process (comprehensibility). The more we understand, the better we manage (manageability). The driving force in the entire research process, in general, and the supervision process, in particular, is that meetings are considered meaningful, supportive of the continued work and worth investing one's commitment and energy in (meaningfulness). When we are able to include all these dimensions, we have created a SOC based on trust and confidence and done so in dialogue with supervisors and the doctoral student.

What distinguishes the Collegial Model from others?

This article places research supervision in a broader context of sustainable working life by focusing on stress management. It is not about didactic methods or different learning theories but about health promotion in an area of research supervision. This is a new approach not described earlier. The starting point is an assumption that research supervision is associated with high levels of long-term stress for supervisors as well as for the doctoral students. The ability to manage long-term stress becomes therefor important for maintaining health. Here the salutogenic theory and the research on stress management becomes important to consider and where the salutogenic theory can contribute to a positive health development of the actors. This salutogenic model takes systematically into account how stress can be reduced during the long-term processes of research supervision by always posing the salutogenic question, what creates health and success in the educational process, rather than focusing on obstacles and shortcoming. The salutogenic theory is here proposed to form the basis of the Collegial Model and combined with the proposed guidelines they form a coherent and theoretical framework for research supervision. The Collegial Model emphasizes the mutual learning between supervisors and doctoral students. This means that the actors have different skills and experiences, but of the same value for a successful supervision process. Doctoral students are here seen as colleagues, not only as students, that essentially contributes to professional learning of supervisors. The doctoral students bring new knowledge into the research teams that stimulates further research.

IMPLEMENTATION IN PRACTICE

One way to implement the salutogenic theory in practice, here in research supervision, is to clarify processes and outcomes. A simple work plan, as an example of how to create a structured supervision process, is shown in Figure 2.

Use of a clearly structured plan for the dissertation gives both the doctoral student and the supervisors a tool for following how the work is progressing. In addition, all parties have an overview of what has been done and what has to be done in the near future. Conducting research and working on a doctoral thesis involve a protracted effort characterized by ups and downs. Especially when the work gets difficult, the work plan provides confirmation that things have been accomplished and that progress has been made—something that is often forgotten. To further strengthen doctoral students, it is recommended that they write a logbook, where the work is summarized monthly. This makes sense for both students and supervisors.

Further, there is an urgent need for general guidelines for research supervision. According to Lindén, ethics means having purposeful and reflective (Lindén, 2005) basic principles and values, something that has not been developed thus far with regard to research supervision. In line with the guiding principles of health promotion (Rootman *et al.*, 2001) and the key elements of the salutogenic theory (Lindström and Eriksson, 2010), the following principles have been suggested for guiding research supervision (Table 1).

This debate paper has focused on various dimensions of research supervision, from the perspectives of both the supervisors and the doctoral student, by introducing the salutogenic framework as a theory for supervision, exemplified in The Collegial Model. It is in the interest of universities and the research being conducted, of the supervisors, as professionals, as well as doctoral students, as upcoming researchers, that supervision should be seen in a broader context, i.e. as part of a sustainable working life with the academy. As shown in the paper, research supervision seems to be associated with high level of stress for all actors. How to manage long-term stress becomes essential for maintaining health. Further, it should be *theory driven* based on general supervision *guidelines* exist. Another main point made here is that supervision should be seen as a mutual learning process between colleagues in the supervisory team. Mutual dependency plays a role as well, in that doctoral students account for most of supervisors' scientific production.

FURTHER RESEARCH

The article introduces the salutogenic framework in educational science in terms of research supervision. There is a need of further research to examine the strengths and limitations and potential impact of the model. The next step could be to conduct an empirical study using the Collegial Model as a foundation for supervision using qualitative interviews of doctoral students and supervisors to get deeper knowledge of research supervision, the salutogenic way.

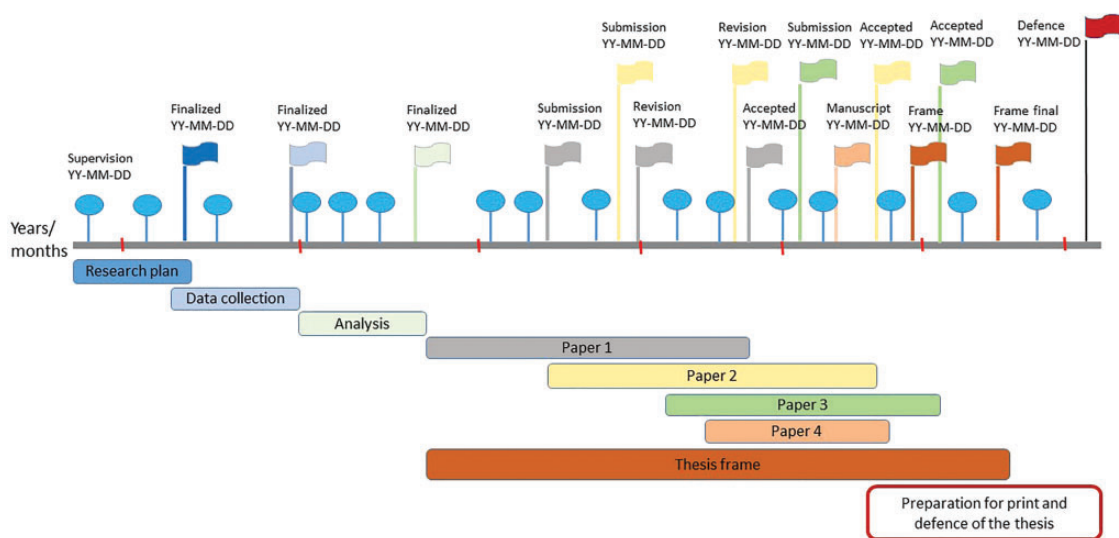


Fig. 2: Work plan.

Table 1: Guiding principles and values for formulating salutogenic guidelines for research supervision

Principle/value	Implementation
Ethics/presupposition	Apply a resource-oriented approach, where all parties in the supervision team accept, respect and identify abilities and competencies applicable for supervision. The presupposition is that research supervision is associated with perception of long-term stress.
Empowerment/sustainability	Create sustainable working conditions for the supervisory team and the doctoral student that enhance progress. Balance the power relations between all parties in the supervisory team. Clarify roles and responsibilities.
Comprehensibility	Create a clear structure for the working process that makes it easier to comprehend and predict over time.
Manageability	Clear structures and processes are easier to manage. Flexibility increases manageability.
Meaningfulness	Supervisory meetings have to be well prepared, with a relevant agenda for all parties and content all have agreed to.
Feedback/feedforward	Criticism without discouragement. Giving constructive critique and highlighting the doctoral student's strengths, in manuscripts and texts. Begin with positive aspects, be critical in a constructive manner and end with positive feedback.
Learning	Knowledge is created through mutual learning processes, where formal knowledge and individual experiences are of equal value. It is about learning, not teaching.
Theoretical framework	Supervision has to be theory driven and evidence based.

CONCLUSIONS

Doing research supervision the salutogenic way is a matter of mutual learning processes, where all parties' knowledge and experience are different and needed, they are equally valuable for a successful research supervision. Supervision is a process that enables doctoral students to increase control over mutual learning processes as they become researchers and approach their thesis defense. This process should be characterized by clear structures and an empowering environment, where the doctoral student is able to identify his/her internal and external resources, as well as use and reuse them in a health-promoting manner. How supervisors and doctoral students perceive the processes involved in thesis work is naturally of interest to supervisors and doctoral students, but it is also important to university leaders given the connection of these perceptions to the health and well-being of students and supervisors. Research supervision could also be put in a broader context of sustainable working life in the academy.

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