



**FACILITATING A MENTORING PROGRAMME FOR
DOCTORAL STUDENTS:
INSIGHTS FROM EVIDENCE-BASED PRACTICE**

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ABSTRACT

Aim/Purpose	One approach to helping doctoral students deal with the many challenges they face is the provision of a structured mentoring programme to complement the more traditional doctoral curriculum and supervisor relationship. This paper reports a mentoring programme containing such activities as individual consultations and peer-mentoring workshops, introduced at one of the non-public universities in Poland and discusses the development of a model of support. In developing the model, two evaluation studies were conducted seeking to discover how participants perceived the mentoring programme, what needs the mentoring programme addressed, and what benefits it provided for doctoral students.
Background	With reference to a new paradigm proposed by Kram and Higgins, mentoring emerges in the context of many developmental networks, where the more junior mentors and peer-mentors together discover new roles involved in doctoral education.
Methodology	Case study methodology is utilized to gather perceptions of a doctoral mentoring programme. The conceptual framework for a two-part programme is presented and the results of two evaluation studies conducted on-line using a mix-method approach are reported. In total, 42 doctoral students participated in the studies, representing social sciences and the humanities disciplines.
Contribution	This paper discusses a novel doctoral mentoring programme which finds its basis in evidence-based practice. This research goes beyond previous studies by undertaking an analysis of doctoral students' needs, then considering relationships between those needs and structuring a programme to meet them.

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Findings	Findings showed three main areas of need for doctoral students: the need for social interaction at university; the need for structure in the doctoral journey, and the need for psychological support. Participants distinguished two perspectives that influenced the assessment of programme activities: (a) the meaningfulness of the mentoring programme to the individual; (b) the mentor's attitude including the general atmosphere of collegiality during meetings. Results presented are supported by a proposed intervention model.
Recommendations for Practitioners	The model presented may inspire other universities to implement similar approaches for supporting their own doctoral students. Researcher enablers are also offered as strategies relating to workshop topics, meeting schedules, and programme organization. The main recommendation for practitioners is to be sensitive to the psychosocial needs of students.
Recommendations for Researchers	Researchers interested in doctoral students' needs and ways of supporting them can utilize the proposed model for strategically planning such support. It is recommended that further research into the area of mentoring doctoral students makes use of the mixed-method approach. Such an approach takes cognizance of phenomenological exigencies as they pertain to individual meaning-making.
Impact on Society	Supporting the effectiveness of doctoral students is significant as failure comes at great professional and personal cost to the doctoral student. There are also potential costs in terms of faculty disillusionment and impacts on university reputation. Economic benefits to the nation may also be forfeited when doctoral students fail to graduate.
Future Research	It would be valuable to corroborate the model presented and extend it through the development of a mentoring support scale which identifies more linearly specific doctoral students' needs. Longitudinal studies are also required to verify long-term effects of the programme.
Keywords	doctoral education, doctoral students, mentoring programme, peer-mentoring, psychosocial support

INTRODUCTION

Doctoral students occupy a unique space in higher education, being at the third and highest level of formal university study. Simultaneously fulfilling the roles of teaching classes, conducting research, publishing articles, and representing the university at conferences, while completing a doctorate, can prove to be challenging (McAlpine & Amundsen, 2009). Grady et al. (2013) aptly describe this state as “betwixt and between” (p. 5), one of being neither fully student nor fully professional. While not all doctoral students pursue academic careers, throughout their candidature, most gain an introduction to work typical of academia. For those who do aspire to academia, launching a career is now more difficult than it was 20 or even 10 years ago due to increasing compliance demands. This is not just the case for Poland, where the present research was conducted. Young researchers tend to work longer hours for less pay. They also shoulder a broader range of responsibilities that include applying for funding, attending to financial administration, and managing others (“Early-career researchers need fewer burdens and more support,” 2016). Navigating this new reality poses a challenge not only for doctoral students but also for all those involved in all aspects of doctoral education (Zinner, 2016), especially those providing support in the form of mentoring or academic coaching.

The doctoral journey can be fraught with obstacles and challenges that students must negotiate but which often go beyond their domain knowledge or research expertise. A lack of adequate support in

such circumstances may lead to uncertainty and a feeling of being alone (Fergie et al., 2011). Indeed, numerous studies have highlighted the issue of isolation facing doctoral students as being significant (Ali & Kohun, 2007; Pyhältö & Keskinen, 2012). Any sense of isolation may be associated with the lack of opportunities for socialization and integration not only with other doctoral students but also with PhD supervisors, faculty, and members of research teams (Castelló et al., 2017). The emotional cost of fulfilling stringent formal requirements (Austin, 2002), performing complex roles (Grady et al., 2013; McAlpine & Amundsen, 2009), submitting to delayed gratification, experiencing constant criticism, and facing insecurity and loneliness (Fergie et al., 2011) are often so complex that students self-select out of the doctoral programme. Understandably, high attrition rates have been shown to be a salient concern with regard to study at doctoral level (Ali & Kohun, 2007; Allan & Dory, 2001; van de Schoot, 2013). It needs to be noted that withdrawing from a doctoral programme may come at great cost to the student and include psychological, emotional, and physical factors. Moreover, lack of retention discourages faculty and so may be harmful to the overall reputation of the institution (Green, 1997). Economic benefits to the nation may also be forfeited when doctoral students fail to graduate.

At doctoral level, a student's psychosocial well-being can affect the level of engagement with the doctorate, the quality of results, and even completion exigencies (Pyhältö et al., 2012; Stubb et al., 2011). A study with Finnish doctoral students (Stubb et al., 2011) explored the difference between "experiences of empowerment" and "experiences of burden" (p. 39). With regard to the "experience of burden," more than half of the respondents expressed a sense of exclusion and exhaustion, negative emotions and ambivalent feelings toward the academic community. Perceiving the academic community as a burden was associated with feelings of stress, anxiety, and exhaustion. Such individuals might be seen as being at higher risk of dropping out of the programme than their colleagues. Conversely, those who attributed "experiences of empowerment" to their community of involvement tended to possess a sense of belonging, purpose, and contribution, while also valuing their own work to a greater extent. They also rated their own overall well-being as higher than that of their disenfranchised doctoral colleagues and did not lose interest in their dissertation topic.

MENTORING AS A SUPPORTIVE STRATEGY

The growing interest in mentoring has sparked a variety of approaches and delivered a multiplicity of definitions and theories (Bozeman & Feeney, 2007). In this paper, mentoring is operationally defined along the lines suggested by Johnson (2002) and Mangione et al. (2018) as a dynamic, mutual, and interpersonal relationship in which a more experienced individual becomes a guide, role model, teacher, and sponsor of a less-experienced individual. Mentorship entails a wide spectrum of roles and responsibilities, from supervision and oversight to teaching, counselling, coaching, tutoring, providing psychosocial support and friendship (Kram, 1985). The mentor provides knowledge, advice, and support to help others realize individual aspirations and become integrated into their new educational and professional roles (Clark et al., 2000; Johnson et al., 2000). As such, mentoring touches upon both career progression and psychosocial development (Kram, 1985). Jacobi (1991) engaged in a detailed examination of the various approaches associated with mentoring. On the basis of a literature review, Jacobi identified three key areas in the mentoring relationship: (a) emotional and psychological support; (b) direct assistance in professional and career development; and (c) role modelling. Inspired by these factors, de Tormes Eby et al. (2013) conducted a meta-analysis and distinguished the elements of (a) instrumental support, (b) psychosocial support, and (c) relationship quality.

Such a comprehensive spectrum of mentoring responsibilities makes it difficult to subject mentoring to a formal framework. At the same time, remembering that mentoring as a concept is far greater than the sum of its components allows the concept to be broadly interpreted (Johnson, 2002). Referring to a new paradigm in mentoring (also called *A New Mindset on Mentoring* - Kram & Higgins, 2009), mentoring has been envisaged as emerging within the context of integrated developmental

networks (Kram & Higgins, 2009), where peers, the more junior mentors (Santora et al., 2013), and the step-ahead mentors (Ensher et al., 2001) can play important role. In the academic context, the step-ahead mentor may be a person who is at a level higher in the hierarchy than mentee (Ensher et al., 2001), holds a doctorate, and has some post-doctoral experience, but is not yet a fully independent scientist. It is within the ambit of such an approach that peer-mentoring may be utilized, where reciprocal learning becomes an important factor in the mentoring process through the creation of a space for building developmental networks (Kram & Higgins, 2009). Space is here understood as a dedicated time and place where mentoring activities can be initiated and facilitated by engaging in new roles and interacting with more experienced professionals in doctoral education, with this being managed beyond the traditional doctoral curriculum, labs and the student—supervisor relationship (Zinner, 2016).

The goal of mentoring programmes is to provide students with personal and professional support along with guidance during the course of their studies (Lewinski et al., 2017). The content of each sessions will vary, depending upon individual student needs, and may include aspects such as curriculum clarification, institutional and discipline requirements, developing healthy working habits, and accessing psychological support. Fostering the establishment of relationships with other doctoral students at various levels of progress is also important as such promotes better skills of self-reflection and facilitates information sharing (Baker & Pifer, 2011). Accordingly, peer-mentoring can lead to various benefits including assisting students in knowing faculty members better, promoting socialization, and obtaining a sense of camaraderie within the doctoral cohort (Lewinski et al., 2017). At a more macro level, the goal is to build community, promote networking, and strengthen participation in the life of the department (Pinilla et al., 2015). A further goal is to shape a culture of care and support (Kramer et al., 2018), so as to reduce attrition in doctoral level studies.

McManus and Russell (2007) point out that senior mentors and peer-mentors may offer different types of support. Exploring career aspirations, for example, may be the domain of more senior mentors; while peers may have more of a psychosocial function that includes contributing emotional support, confirming decisions, presenting personal feedback, and providing friendship. Mutual sharing of information and personal experiences seems to play a key role in developing peer relationships; however, career strategizing and job-related feedback may also be a possible topic for discussion. The level of support provided depends on trust, commitment level, relationship intensity, nature of the issues addressed, and the degree to which needs require resolution (McManus & Russell, 2007).

Taking into account the context as described, a key question is how to introduce mentoring protocols into doctoral education that complement and enrich the role of the doctoral supervisor. With this question in mind, the present paper reports a mentoring programme introduced at one of the non-public universities in Poland and discusses the development of a model of mentoring. In developing the model, two evaluation studies were conducted, each seeking to discover how participants perceived the mentoring programme, what needs the mentoring programme addressed, and what benefits it provided for doctoral students.

THE MENTORING PROGRAMME AT OUR UNIVERSITY

Currently, about 40,000 doctoral students are active in Poland every year (Adamska et al., 2019). As in most jurisdictions, doctoral studies in Poland are at the third stage of education and can be commenced after the completion of a master's degree. The programme is normally completed in four years of fulltime study, but it may take longer to obtain the degree on a part-time basis.

The doctoral programme at our university has been in place for more than a decade and a half and has an enrolment of some 267 students. The dissertation completion rate varies depending on the academic discipline, but on average 20% of enrolled students complete the qualification (SWPS University of Social Sciences and Humanities, 2020). In order to provide doctoral students with additional support on their way to a doctorate, an innovative mentoring programme was launched in

2017. The programme, which is described in this article, has a single coordinator who is based on the Warsaw Campus (mentoring is also conducted separately in Wroclaw). Participation in the programme is not compulsory but an additional educational support of which students may or may not choose to avail themselves. Students receive neither credits for participating in the programme nor are they eligible for any other form of recompense.

What follows is a summary of the first two years of the mentoring programme in Warsaw, based on data extracted from two on-line evaluation studies. To understand the specifics of the programme, it is necessary to outline its two core elements:

One-on-one consultations

The nature of the consultation component varies according to the specific needs of each student. The overarching purpose of the sessions is to provide support and development opportunities during the doctoral process through allowing space for reflecting on goals, plans, experience, style of work, and doubts the student may have, with this being undertaken in a relaxed, comfortable, and informal environment. This objective is also central to the mentoring mission, which is to create a culture of cooperation and to support students' academic effectiveness, while simultaneously enhancing well-being and overall satisfaction with their studies.

Consultations generally last between 45 and 90 minutes. If a student has specific and limited questions and needs, then the consultation consists of a one-off session. Most students, however, choose to meet cyclically and stay in regular contact with their mentor via e-mail and/or telephone between meetings. In total, 102 formal individual consultations were conducted during the 2017/18 school year and 99 during 2018/19. Countless shorter informal conversations, including follow-ups, were also conducted.

Peer-mentoring workshops

The aim of peer-mentoring is to foster the exchange of knowledge and experience as well as to help facilitate a fruitful relationship between students at various stages of the doctoral journey. Peer-mentoring takes place in small informal groups, with the topic for each meeting proposed by the facilitator. In doing so, the facilitator takes into consideration the needs reported directly by students. Suggestions for topics to be covered or special needs to be considered are also solicited from the Doctoral Student Government. Special guests are often invited to the workshops — graduates, winners of grants, persons finalizing their doctorate — whose partnership with the mentoring programme adds value to its structure. Examples of meeting topics include (a) "Ready for the Challenge;" (b) "Open to the Opening" (for students planning to open formal dissertation proceedings); (c) "Pre-submission Prom" (for students finalizing their dissertations); (d) "Combining Work with a PhD;" (e) "Combining the Roles of parent/guardian and doctoral Student;" (f) "Research at an Organization;" (g) "How to Prepare for the Academic Conference;" (h) "Can your research give something to the world?" (about knowledge transfer); (i) "How to prepare an annual report;" and (j) "Writing evenings" (cyclical meetings dedicated to collective writing). Peer-mentoring workshops feature both discussions as well as exercises. For each of the two years of the study, 13 peer-mentoring workshops were held. Registration was optional with each workshop lasting a minimum of 2 hours.

METHOD

Utilizing Crotty's (1998) nomenclature and as the present study involved direct experience, it finds its theoretical basis in phenomenological research. Its methodology, where both quantitative and qualitative approaches were used (Creswell, 2018), may best be described as mixed methodology. The quantitative component utilized descriptive measures while the qualitative aspect gleaned more in-depth information via open-ended questions. The actual method for accessing data utilized a case study approach to investigate a mentoring programme offered at one University (one Campus). The

investigation focused on the evaluation of One-on-one Consultations and the Peer-Mentoring Workshop components of the mentoring programme.

MEASURES

To gauge doctoral students' opinions regarding specific elements of the mentoring programme, especially in the areas of support and benefits resulting from participation, two evaluation studies (S1 and S2) in the same format were conducted: S1 after the 2017/18 academic year; and S2 after the 2018/19. An invitation to participate in the study was sent to all those involved in the programme. Both evaluation studies were voluntary, anonymous, and conducted online after the end of the academic year. A group invitation to participate was sent to doctoral students together with a link to the website. Doctoral students were informed that by completing the survey they agreed to participate in the study. Participation in the study was not remunerated.

The study consisted of 13 mixed-type questions (open and closed questions), with a short demographic survey also being administered. Questions covered issues such as (1) format of meetings (individual/group); (2) the number of meetings in which students participated; (3) opinion of individual consultations (open questions); (4) opinion of peer-mentoring workshops (open questions); (5) overall satisfaction (using a 5-point scale Likert-type scale ranging from dissatisfaction to very high satisfaction regarding to communication, relationship, atmosphere of meetings, information provided and support offered); (6) willingness to participate the following year (yes/maybe/no); (7) needs for the following year (open questions); (8) optimal frequency of individual meetings; (9) areas of support required (question with multiple answers); (10) benefits (question with multiple answers); (11) recommendation of the programme to friends (using a 5-point Likert-type scale from definitely not recommending to definitely recommending); (12) similar form of support encountered at another university (if yes, where?); (13) general comments, suggestions for changes, proposal of topics for future meetings (open questions).

In order to better ascertain the needs addressed by the mentoring programme and simultaneously to understand its significance, two questions were posed. The first question (9) was concerned with the areas in which students received support by participating in the programme. On the basis of a list of specific challenges and demands presented during scheduled meetings, 19 possible answers were formulated. There was the option of selecting several from the list presented, with the participants also being invited to offer their own response if desired. The second question (10) was concerned with the benefits of participation, with a request to select the three most important ones from the list of 15 defined programme objectives presented.

PARTICIPANTS

The first evaluation study group consisted of 21 doctoral students from a cohort of 45 who had participated in one-on-one consultations ($n = 18$; 85.7%) and/or peer-mentoring workshops ($n = 15$; 71.4%). The second evaluation study group consisted of 21 doctoral students from a cohort of 60 who had participated in one-on-one consultations ($n = 17$; 81%) and/or peer-mentoring workshops ($n = 18$; 85.7%). Some of the respondents took advantage of both forms of support. The participants were predominantly females (about 85%), which reflects gender proportion at doctoral level study in the humanities and social sciences at our university (representing the disciplines of psychology, sociology, cultural studies, and law). Table 1 provides details of participants by research study number, age and year of doctoral study.

Table 1. Number of respondents divided by year of study and age

	N	Year of doctoral studies					Age				
		1st	2nd	3th	4th	above	20-29	30-39	40-49	50-59	no data
Study 1	21	4	4	7	4	2	3	9	7	2	0
Study 2	21	5	4	4	3	5	5	9	6	0	1
Total	42	9	8	11	7	7	8	18	13	2	1

FINDINGS

The overall satisfaction rating (communication, meeting atmosphere, information received, and support) was very high (S1: $M = 5.0$; $SD = 0$; S2: $M = 4.9$; $SD = 0.3$). The majority of doctoral students plan to take advantage of mentoring in the next academic year (S1: 81%; S2: 95%) and they are also willing to recommend the programme to other doctoral students (S1: $M = 5.0$; $SD = 0$; S2: $M = 4.9$; $SD = 0.4$).

Researchers interested in developing and implementing mentoring activities debate the frequency of meetings (Baugh & Fagenson-Eland, 2007; Cobb et al., 2018; Johnson, 2002). Results of this study showed that most students (S1: $n = 14$; 70%; S2: $n = 16$; 76.2%) attended between two and five meetings during one academic year, but some students needed to meet more frequently (up to 10 sessions). The number of sessions varied depending on needs and time constraints, as confirmed by almost half of respondents in first study (S1: $n = 9$; 42.9%): once per month ($n = 5$; 23.8%), or at least once per quarter ($n = 6$; 28.6%). In the second survey, the results were slightly different, with half of the respondents indicating that they would like to meet a minimum of once every quarter ($n = 10$; 50%). Others indicated that they appreciated regular meetings, preferably monthly ($n = 4$; 20%), or depending on specific needs ($n = 4$; 20%).

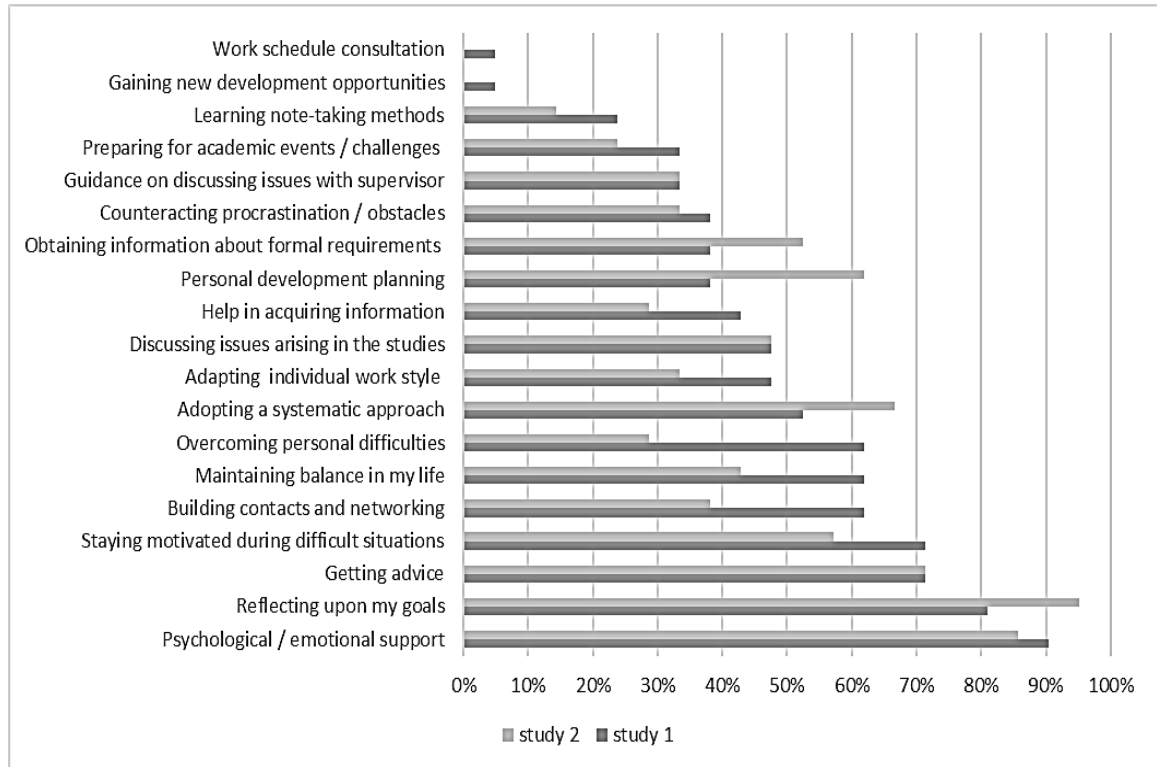


Figure 1. Areas of support received through participation in the mentoring programme by study

As an outcome of having participated in the programme, participants were asked to indicate the most useful areas of support. Nineteen possible choices were presented. Responses across the two evaluation studies are presented in Figure 1.

In the first study, psychological and emotional support ($n = 19$; 90.5%) was the most significant area in which mentoring provided the greatest benefit. This was followed by “support with reflecting upon goals and means to achieve them” ($n = 17$; 81%). Next was support in “obtaining advice” and in “staying motivated” during difficult or crisis situations ($n = 15$; 71.4%). In the second study, the trends were quite similar, with “reflection on one’s own goals and methods to achieve them” scoring highest ($n = 20$; 95.2%); with “psychological and emotional support” ($n = 18$; 85.7%) and “obtaining advice” ($n = 15$; 71.4%) being given the penultimate rankings.

Despite the relatively high consistency in the areas assigned the highest scores, changing trends are also visible. During the first year of the programme (S1), more participants indicated areas typical of psychosocial support (maintaining balance, motivating, overcoming personal difficulties, networking), while in the following year of the programme (S2), the focus was more on planning, prioritizing, and working systematically — issues relating more to study concerns than being of a personal nature. This is likely to be related to the changing legal basis for doctoral studies in Poland at the time. Students who desired to follow the “old rules” had to do the necessary work faster. Many people were also concerned about the consequences of statutory changes, which translated into the need for understanding and complying with the new formal requirements. These new requirements meant that students needed updated information about how to negotiate their study load, as well as how to ensure that work was completed on time.

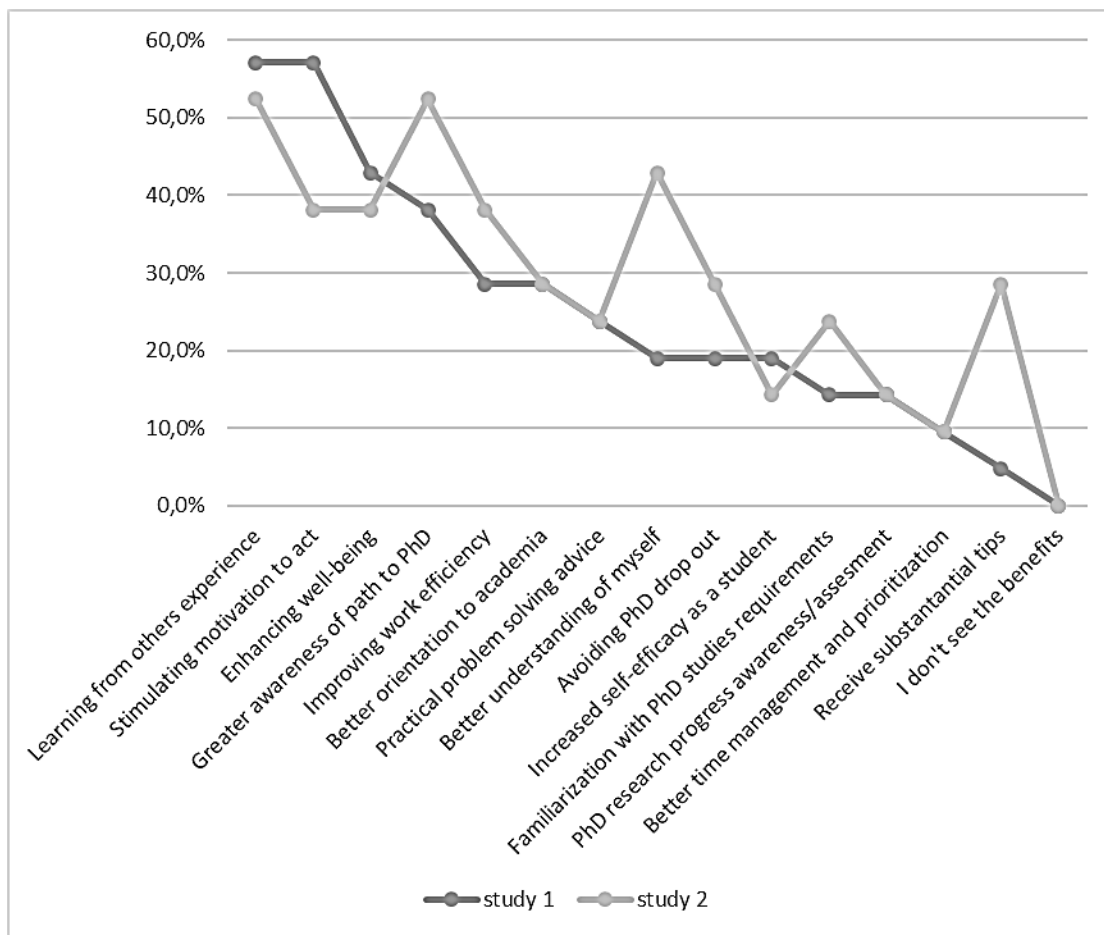


Figure 2. Most important benefits of participation in the mentoring programme by study

As to the question of whether students saw any benefits of participating in the mentoring programme, all responded positively by indicating the specific benefits received. For S1, the two highest scoring benefits were “the opportunity to learn from the experiences of others who faced similar situations” ($n = 12$; 57.1%) and “stimulating motivation to act and encouraging further steps” ($n = 12$; 57.1%). The next highest scoring items were “enhancing well-being” ($n = 9$; 42.9%), followed by “greater awareness of the stages and tasks ahead on the road to a PhD” ($n = 8$; 38.1%). For S2, “the opportunity to learn from experiences of others” ($n = 11$; 52.4%) and “greater awareness of the stages and tasks on the road to a PhD” ($n = 11$; 52.4%) were the most frequently selected answers. Second in frequency was “better understanding of myself (work style, strengths, motives, expectations)” ($n = 9$; 42.9%). The frequency of individual responses is presented in Figure 2. It is worth mentioning that 10 students who took part in the studies indicated that thanks to the mentoring programme they ostensibly avoided dropping out of the doctoral programme.

Though the results above may indicate the highest scoring responses regarding identified needs and benefits received, they do not offer a fine-grained analysis of the deeper aspects of mentoring as perceived by individual participants. Qualitative analysis allowed such perceptions to surface from the data. The first step in analysing the qualitative material was to check what programme factors appeared most frequently. Two perspectives emerged: (a) the meaningfulness of the mentoring programme to the individual; (b) the mentor’s attitude and general atmosphere during meetings. These are discussed in detail in what follows.

MEANINGFULNESS

Responses confirmed the programme’s supportive function and also gave credence to the notion that implemented strategies were successful, as indicated by the following verbatim comment:

The programme offered a revolutionary change in my processes for obtaining a doctorate. This type of contact is as vital as air. Without the mentoring input I would feel like being stuck in one place. I would not have completed my dissertation. The programme gave me a motivational jolt and [provided] emotional support. I can not imagine it [mentoring] not being part of doctoral studies in the future (S1-5).

Consultations very often focused on planning. Possible scenarios were also discussed taking into account extenuating life circumstances. The quotes below strongly complement the quantitative results by showing how meaningful it was for participants to reflect upon their goals as well as on the means to achieve them:

Working with [Ms.] and the opportunity to discuss my doubts with her was an invaluable element in the first year of my doctoral studies. [Ms.] not only supported me, but often helped with the optimal arrangement of the action plan, prompted me regarding what should be my priorities, and clarified distractions affecting productive work. The opportunity to celebrate small successes with the [Ms.] and discuss my doubts with her was one of the pillars of successful implementation of the work plan for the dissertation (S2-2).

Individual meetings were very valuable to me. They allowed me to organize my thoughts and create an action plan during a time of crisis (S2-1).

Many similar statements give voice to the motivational nature of consultations. Such data supports quantitative results in which more than half of the respondents saw mentoring as stimulating motivation to act. Doctoral students can often feel lost in the academic environment and morass of negotiating formal requirements. Such concerns give rise to students harbouring doubts as to whether they will be able to complete their PhD at all. Being able to discuss how to manage one’s own doctoral project, or structure one’s work, vastly contributes to reducing anxiety and has a mobilizing effect, as indicated by the statement below:

One-on-one consultations were indispensable for me in negotiating the various requirements leading to the commencement of formal dissertation proceedings. The consultations were important support for me when experiencing problems and difficulties in my academic and personal life. The consultations covered the spheres of the doctorate that are beyond the scope of the work undertaken with my academic supervisor. I am grateful for the collaboration with the mentor and greatly appreciate the emotional and psychological support received (S1-17).

The significance of psychological and emotional support became evident in participant responses, especially when faced with difficulties or crises. The need to anchor a doctorate in a widely understood context (i.e., professional, family, health, development, and/or identity) has the potential to cause dilemmas for students.

With regard to peer-mentoring workshops, participants again responded very positively to these. In particular, participants emphasized the importance of creating a sense of community as a means of being integrated into the school environment, something which is often difficult to achieve via regular classes. Of greatest significance to the majority of respondents was the sharing of knowledge and experiences — both positive and negative — as evidenced by the quantitative results as well as responses to open-ended questions. Becoming familiar with the struggles of others is helpful in better preparing for similar situations or for avoiding an undesirable situation altogether. Comments attesting to this included:

Discussing milestones with others who already have a certain step behind them gave me the opportunity to get acquainted not only with their thoughts on issues, but also with how these were worked out in practice (S2-2).

I believe it worthwhile to hold a mandatory cycle of meetings addressing the challenges faced at each particular point in the course of studies. Each group meeting was extremely inspiring. In addition to reliable information being presented, participants received emotional support and a solid dose of empathy, an experience above all unexpected, surprising, and extraordinarily valuable (S1-5).

The psychosocial benefits of peer-mentoring were often mentioned. Being part of a group of people and a community of experience promotes a positive attitude towards more concentrated effort and work on the dissertation, as indicated below:

A great form of support for doctoral students, mutual sharing of experiences and professional moderation of discussions by the mentor opens up topics that we do not normally have time to deal with but that are key to our development at school. I am very happy to have the opportunity to participate in these meetings, getting to know other students, their areas of interest, and to working on myself (S1-21).

Peer-mentoring also enables comparisons of one's own situation and progress with that of one's counterparts. Doctoral students working independently (i.e., not as part of a research team) lack opportunities to know what another's work looks like, whether their own efforts are comparable or advanced given their year of study. Peer-mentoring workshops provide a space to observe diverse individual work styles. Some students begin to notice their own shortcomings, while others gain confidence from noticing the shortcomings of others, as indicated:

Group meetings have one essential advantage. They reveal how far along one's own work is thanks to the sharing of experiences with others, which improves motivation (S1-10).

MENTOR'S ATTITUDE AND ATMOSPHERE OF MEETINGS

Many of the responses concerning one-on-one consultations and peer-mentoring workshops went beyond the scope of the meetings themselves, supplying additional feedback about the mentor's attitude and the general atmosphere of meetings. It is important to emphasize how fundamental the formation and nurturing of relationships is to mentoring, and how the person in the role of mentor (formal facilitator of the programme) should remain close to participants and be aware of their specific issues. Qualitative data confirm how important the mentor is for doctoral students:

A great, individualized approach that gives you the comfort of being listened to. What's more, the mentor's commitment, expressed through the concrete guidance and help provided, was invaluable (S1-9).

Participants also noted the atmosphere engendered during meetings as being constructive, inspirational, friendly, mobilizing, motivating, and facilitating self-confidence:

A very important aspect was the attitude of the mentor towards me and towards our meetings. The atmosphere created by the mentor gave me a feeling of security, full of trust. In the next academic semester I would like to have the option of more consultations (S1-12).

[Ms.] displayed the most "human" touch when it came to lecturers (S1-10).

TOWARDS SYNTHESIS OF THE RESULTS - A MENTORING SUPPORT MODEL

Based on quantitative data (Figures 1 and 2) and qualitative data (as exemplified in the quotes presented above), three main needs were distinguished to which the programme had responded:

- (1) The need for social interaction at university (contact and conversation with people who have been/are in a similar situation; exchange of knowledge and experiences; mutual help, based not only on resources, but also on understanding the individual; help in acquiring information; good relationships; networking; social comparison; and counteracting isolation).
- (2) The need for structure in the PhD journey (being aware of the stages and requirements of a PhD; planning subsequent steps; reflecting upon goals and means to achieve them; need for certainty, which is satisfied thanks to the awareness of the requirements, possibilities and understanding of limitations; access to know-how in academia, or tacit knowledge; and obtaining advice).
- (3) The need for psychological support (encouragement; stimulating motivation to act, help during crises; building self-efficacy as a researcher; improving well-being; emotional support; better understanding of yourself; and maintaining life balance).

On the basis of these findings, the Mentoring Support Model for Doctoral Education was created. The model is presented in Figure 3. The model also includes individual needs (located in the centre) which are difficult to categorize precisely because of their individual nature. The other three areas under consideration often subsume individual needs and because of their unique and extensive nature, are beyond the scope of this paper.

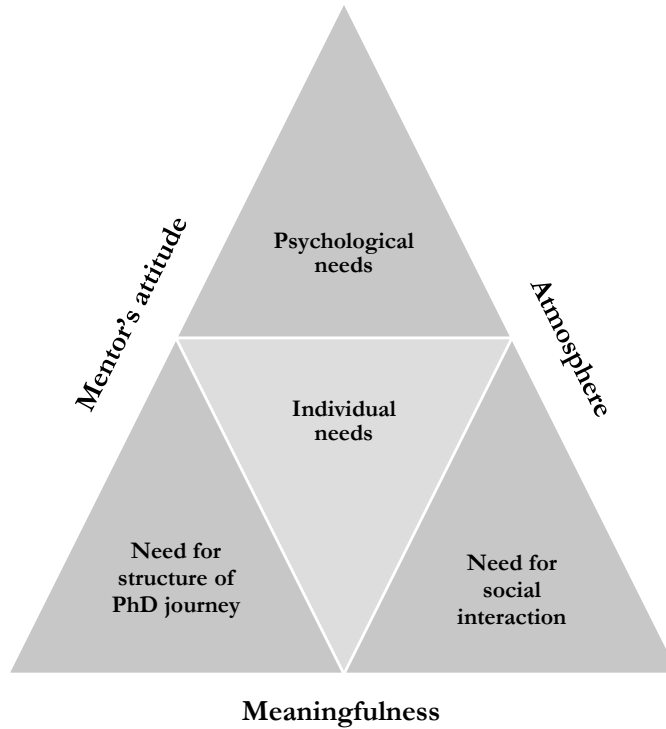


Figure 3. The Mentoring Support Model for Doctoral Education

DISCUSSION

The context of the research requires particular emphasis. In the social sciences and humanities, doctoral students may derive strong internal motivation from engaging in research in their own areas of interest but have limited access to widely understood group knowledge and social support. The results of this study show that the greatest benefit of mentoring is the ability to learn from another's experience (mentor's and peer-mentor's). The programme, especially its peer-mentoring component, is dedicated above all else to those students who pursue their PhD outside of a research group or who are new to the university environment. Based on the average age of doctoral students, it appears that the beneficiaries of the mentoring programme are those who opted for a doctoral degree later in their career rather than immediately after graduation from university. As such, they lack what often determines the effectiveness of young researchers, namely, access to tacit knowledge, or know-how (Gerholm, 1990) and being able to make a "opportunity audit" in the context of a planned career (Kram & Higgins, 2009).

Through interdisciplinary and interdepartmental contacts beyond supervisor responsibilities, students can obtain information addressing their needs for certainty and structure and build a sense of belonging (Castelló et al., 2017). According to new paradigms for describing mentoring relationships and processes as developmental networks (Kram & Higgins, 2009), the need for devising structure and meeting psychological needs can to a large extent be satisfied by facilitating social interactions. Baker and Pifer (2011) came to a similar conclusion by analysing interviews with doctoral students in business and higher education. They pointed out that relationships with others, including older students, has helped them to understand what is required, what are the study expectations, and how to deal with challenges. The authors further concluded that "relationships are an equally legitimate component of doctoral education, socialization, and preparation for the professoriate and academic career" (p. 14). Establishing appropriate commitment and reciprocally-based relationships with different peer and step-ahead mentors (Ensher et al., 2001; McManus & Russell, 2007) appears to be highly

valuable to doctoral students. Opportunities to ask obvious questions of mentors, thus avoiding potentially exposing themselves to feared criticism from the supervisor, is very helpful for many students.

As Cobb and colleagues (2018) pointed out, doctoral studies can be stressful. Doctoral students may feel insecure, anxious, and too dependent upon their supervisor and faculty. Proactive mentoring, as proposed by Cobb et al., stresses the importance of emotional support as an essential element of well-being. Furthermore, for many doctoral students, a rather illusory connection to their environment, insufficient care from the academic supervisor, or even a mismatch in that relationship (Pyhälö et al., 2015) all contribute to loneliness, isolation and uncertainty (Castelló et al., 2017; Fergie et al., 2011). In addition, the process of obtaining a doctorate obviously takes place in a broader life context with all of its inherent challenges, demands, and responsibilities (Grady et al., 2013; McAlpine & Amundsen, 2009). Doctoral students are particularly vulnerable to work-life imbalances and diminished well-being, especially in the final stages of the doctoral dissertation (Pyhälö et al., 2012; Schmidt & Hansson, 2018). Among the beneficiaries of the program were many students who started their PhD working outside the university and had children. The mentoring programme addresses these issues, directly — through assistance in planning and self-management — and indirectly — through facilitating social contact with others in similar situations (e.g., young mothers & PhD students) or a similar academic pathway (Ensher et al., 2001; McManus & Russell, 2007). The data from the study confirm that subjective improvement of well-being is possible with participation in the mentoring programme. Moreover, in the face of various difficulties, the motivational aspect of both mentoring and peer-mentoring relations is important. Stimulating motivation to act, which respondents indicated as a one of the main benefits of the programme, seems to derive from social exchanges with others (Haggard, 2012), which students tend to experience as personal empowerment (Stubb et al., 2011). Students highly valued being able to reflect upon their goals and being presented with possible scenarios for action based on their individual circumstances. As such, all actions were intended to root doctoral students firmly in the university environment and mitigate their insecurities, while also enhancing self-efficacy (Bandura, 1997; Curtin et al., 2016). Such an approach can contribute to increased motivation and commitment to the doctorate.

The needs identified are a signpost for planning support activities for doctoral students at various stages of their education and career progression. An important aspect of the proposed model relates to meaningfulness as identified by the participants. This aspect appears at the base of the model. The meaningfulness of mentoring is the result of the initial needs of students being directly addressed in conjunction with the mentor. An important element is to interpret the journey to the doctorate as a path of intensive development with many challenges and difficulties along the way. As the most important element, it would not be sufficient if it was not supported by interpersonal structures. Participant comments clearly indicated the importance of supportive relationships being established with the mentor: ones that relied on a positive attitude, mindfulness in the relationship, the building of a safe atmosphere, and sufficient time being given to the task (Cobb et al., 2018; de Tormes Eby et al., 2013; Schlosser et al., 2010).

By way of summary, participants showed an appreciation for the programme's multifaceted activities, which addressed a wide range of needs and benefits, some instrumental, others psychological (de Tormes Eby et al., 2013; Ragins & Kram, 2007). The mixed methods approach revealed three major areas of need: (1) the need for social interaction at university, (2) the need for structure in the doctoral journey, and (3) the need for psychological support of doctoral students. The central point of the model indicates personal needs of doctoral students, these being individual and multifaceted in nature. Based on the findings, a conceptual model was created to guide (peer) mentoring activities into the future. The model may also assist in helping those intending to introduce additional forms of support for doctoral students in their own institutions.

LIMITATIONS

The first limitation is that findings are based on a small-scale case study. It should be emphasized that the mentoring programme described in this article was conducted by a single individual in one university school in Poland. As such, results may not be generalizable to other contexts. Secondly, as the mentoring programme coordinator was also the researcher, there is always the possibility of a Hawthorne Effect surfacing. Although all possible steps were taken to mitigate this possibility, there can never be a guarantee that some participants' impressions were unaffected by this relationship. Nevertheless, as the model presented is premised on a sound relationship between mentor and student, such confounding may not necessarily be a negative aspect of the programme.

FUTURE RESEARCH

The model of support should be verified in future research through the development of a mentoring support scale. Any such scale would need to be statistically robust and represent specific areas of doctoral student needs. Longitudinal studies would also be desirable to verify any long-term effects of the programme on student progress and/or academic progression.

RECOMMENDATIONS

The model of support for doctoral education as presented may benefit others wishing to engage in mentoring activities. This could be undertaken in the following ways:

- (1) Future programme facilitators need to take into account the individual needs of doctoral students, offer personalized forms of support, and create space (time and place) for articulation with more experienced individuals (step-ahead mentors and peers).
- (2) Following an evidence-based model for offering mentoring to doctoral students is likely to have considerably greater success than any ad hoc approach.
- (3) Doctoral students who are not provided the opportunity to enter research teams tend to experience difficulties in integrating into the university research environment and culture. As this is particularly critical in the first years of study, this aspect needs to be embedded into any mentoring program.
- (4) Meetings need to be scheduled and an attendance commitment elicited from the student. Such meetings need to be purposeful and sufficiently flexible to cater for student needs as they arise.
- (5) It is considered that in order to maintain professional distance and objectivity, students should not be formally dependent on a mentor in other area of activity or assessment.
- (6) Researchers interested in doctoral students' needs and ways of supporting them can also use the proposed support model for research planning.
- (7) It is recommended that a mixed-method approach be utilized for future research as such has the greatest potential for accessing more in-depth and meaningful data.

CONCLUSION

In searching for how to support doctoral students on the way to a doctorate, the answer can be found in various forms of personalized education which do not interfere with the role of supervisor. Rather, every attempt is made to complement the role of the doctoral supervisor by providing an additional source of information and support.

For the present study, results indicate that doctoral students need additional support. Furthermore, the proposed mentoring programme, conducted in the right conditions and atmosphere, seems to provide extensive benefits. Satisfaction with the programme, willingness to continue, as well as declaring meeting frequency and readiness to recommend the programme to others, confirm that the model as presented delivers intended outcomes. This result is gratifying and concomitant with other

studies corroborating the value of mentoring programmes for research students (e.g. Mangione et al., 2018; Santora et al., 2013).

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