Chapter 6

General discussion

By addressing the multifaceted challenges medical residents face during the transition from student to resident, this research unravels the dynamics of social adaptation. The exploration revolves around two key research questions: (1) how residents navigate the social challenges and opportunities of the transition from student to resident and (2) how interpersonal and organizational factors influence residents' transition. The individual studies provide an empirical foundation and illustrations of residents' strategies to adapt to their new environment, their perceptions of other healthcare professionals' strategies, how they use their social capital and therefore their social networks to deal with barriers in integrating in the healthcare team, program directors' (PDs') strategies, and residents' preferences for how organizational strategies could help them. This final chapter describes a summary of the main findings, shows how the separate chapters interconnect with one another and answer the research questions, describes how the results relate to and extend existing knowledge, addresses the methodological considerations of the studies conducted, shows the personal reflexivity of the first author, discusses practical implications, and proposes directions for continued research.

6.1 Summary of the main findings

Chapter 2 sheds light on residents' individual strategies, their perceptions of organizational strategies, and whether these strategies facilitated or hindered their transitions. The individual strategies range from seeking information, observing, and experimenting, to asking questions and fostering relationships. The purposes of these strategies include acquiring knowledge, task acquisition, acclimatizing to their role, learning how to behave appropriately, and understanding the norms within this specific healthcare team. Residents' experiences of the organizational strategies stemmed from both direct interactions with other healthcare professionals, such as the presence or absence of a role model, and decisions made at the system level, like the presence of a formal or informal orientation program. These organizational strategies both facilitated and hindered residents' own adaptation efforts, and residents differed on whether they experienced a specific strategy as positive or negative.

Chapter 3 examines how residents use their social capital and therefore their social network to deal with barriers to integrating in their healthcare team. Residents articulated physical and psychological barriers in mobilizing their social capital. They reported experiencing physical barriers, often due to a lack of familiarity and certainty about the potential support others could provide, or limited access to the other (i.e., physical unavailability of other healthcare professionals). They reported experiencing psychological barriers when they perceived that gaining access to specific people was too costly. They perceived approaching these others, mainly supervisors and PDs, as difficult, likely due to these team

members' influential roles in both patient care and decision-making related to accessing specialty training positions. To surmount these barriers, residents leaned on the support of trusted members of their social networks to attain their goals.

Chapter 4 examines how PDs facilitate the organizational socialization process of newcomer residents. Their strategies include approaching newcomer residents as a group or as individuals, letting newcomer residents get acquainted with many supervisors, and acting on expectations of newcomer residents' adjustment to their new role. The study substantiates two overarching insights. First, PDs exhibited variability in their approach to tailoring these strategies to meet the specific needs of newcomer residents. Some PDs adopted individualized strategies, especially when addressing poor performance, while others relied on workplace-based strategies that required residents to adapt to the workplace with minimal intervention, viewing adaptation as an implicit expectation. Second, PDs varied in the extent to which they guided residents' socialization processes. Some PDs made the socialization processes explicit, while others assumed that socialization emerged organically through interactions like sharing office space or collaborating with nurses during ward rounds.

Chapter 5 delves deeper into junior residents' preferences for organizational strategies to facilitate their next transition. This chapter uses the results of Chapters 2 and 4 to develop a statement set describing several organizational strategies, at both interpersonal and system levels. Using a by-person factor analysis, this study identifies four distinct viewpoints on residents' preferences: (1) Dependent residents (n=10) favor a task-oriented approach, clear guidance, and formal colleague relationships; (2) social capitalizing residents (n = 9) prefer structure in the onboarding period and informal workplace social interactions; (3) independent residents (n = 12) prioritize a loosely structured onboarding period, independence, responsibility, and informal social interactions; and (4) exploring residents (n = 5) desire a balanced onboarding period that allowed for independence, exploration, and development.

6.2 How do residents navigate the social challenges and opportunities of the transition from student to resident?

Chapter 1 argues that transitions offer both challenges and opportunities for residents (1,3,4,6). By adopting a social perspective to explore the transition from student to resident, this thesis demonstrates how residents adapt to their new role and how they integrate into their new healthcare team as accepted members by learning the team's norms and values—in other words, go through the socialization process (37–40). The thesis highlights, for example, how residents navigate the social dynamics in challenging

situations, which offers insights in residents' socialization process. Particularly important are the findings regarding how residents handle situations with supervisors or PDs whom they perceive as hierarchically distant. These results indicate that residents must be able to cope with hierarchy by using other people in their social networks. In summary, the residents in this data set show how they cultivated social relationships and used individual strategies to create a supportive learning environment.

Chapters 2 and 3 describe how residents navigate the social challenges and opportunities by interacting with other healthcare professionals, such as peers, senior specialty residents, supervisors, nurses, administrative support staff, family and friends (actors in their social networks), and the system, which aligns with previous research (17,38,111,113,125). These interactions consist of the individual strategies of organizational socialization (OS) theory, such as observing, asking questions, experimenting, establishing social relationships, and seeking information. The results confirm and extend previous knowledge by showing that, just like business and preclinical medical students, residents use these individual strategies to reduce uncertainty when entering their new role and while socially integrating into their new healthcare team (49–52). Seeking information primarily serves the purpose of acquiring, refreshing, or deepening their knowledge; other strategies, such as observation and experimentation, leverage both task acquisition and acclimatizing to the resident role within the specific healthcare setting. Both asking questions and fostering social relationships can facilitate learning about how to behave appropriately and understanding the norms within the specific healthcare team. Residents reported using their social networks to gain access to the resources of these actors, such as information, expertise, and support.

Interacting with other healthcare professionals is not always easy: Residents reported experiencing many challenging situations when they wanted to mobilize their social capital. They were able to deal with these challenges by using other actors in their social networks to achieve their goals. Thereby, the results extend previous knowledge, which is mainly focused on barriers to seeking clinical support, without identifying ways to cope with these barriers (38,59,187). By integrating results from the studies presented herein, we show that the SN and SC theories operationalize aspects of OS theory in more detail, by providing in-depth knowledge about how residents establish social relationships, with whom, why, and how they handle barriers. Integrating the OS, SC, and SN theoretical lenses enhances insight into the social aspects of transitions, which adds to conversations about the social perspective in transitions (13).

6.3 How do interpersonal and organizational factors affect residents' transition?

This thesis provides a framework for what OS strategies look like in the setting of residents transitioning into their first job. The findings are in accordance with research on business graduates and nurses: Organizational strategies significantly influence newcomers' transition period (53–55). By combining the perspectives of both residents and PDs, this thesis provides a more comprehensive and nuanced image of OS strategies to facilitate residents' transition. We next compare and contrast some strategies from both PDs' and residents' perspectives and preferences.

This thesis adds to extant literature by providing a comprehensive overview of PDs' strategies, as well as residents' perceptions of and preferences for these strategies. For example, PDs' perception of implementing collective–individual strategy ranges from organizing group activities to supporting individual residents' socialization process by focusing on lower-performing residents. Residents' experiences of these strategies were positive: They felt treated as one of the group, part of the group of residents, and as though they were treated as individuals and received personal attention. In contrast, they were somewhat more nuanced about the collective strategy. Chapter 5 also identifies differences in residents' preferences for organizational strategies. For example, social capitalizing and independent residents preferred the collective strategy of becoming part of the healthcare team by focusing on informal social interaction, whereas dependent residents did not have a preference for such a strategy. In contrast, exploring residents favored the individual strategy, which involves tailoring personal development and work to their individual needs. These findings have practical implications. When interacting with newcomer residents, other healthcare professionals should aim to learn newcomer residents' needs regarding organizational strategies and adapt their strategies accordingly.

Another example is PDs' perception of an investiture–divestiture strategy, which ranges from adapting the strategy to fit newcomer residents' characteristics (investiture) to expecting residents to adjust to the (implicit) norms of the workplace (divestiture). In accordance with the PDs' perceptions, residents experienced the investiture strategy when important people such as supervisors and the PDs were approachable and created an open atmosphere, and the divestiture strategy when they had to adjust to supervisors' preferences. Chapter 5 shows that despite residents' varying viewpoints, they agreed on their preference for the investiture strategy (statement 42: 'I like it when there is an open atmosphere: that you can easily ask the supervisor, even if it is a simple question') and not the divestiture strategy (participants disagreed with statement 34: 'I like to adapt to what the supervisor wants').

By combining these perspectives and preferences, this thesis shows that the perceptions of residents and PDs differed. In addition, whereas residents' preferences for (some) strategies varied, they agreed on other strategies. Therefore, navigating residents' transition is complex for both residents and their guiding healthcare team. To facilitate such transitions, healthcare professionals should adapt their guidance to residents' needs, and residents should actively engage with these opportunities (106,164).

By combining residents' strategies with organizational strategies, we can define the transition from student to resident as a 'socio-personal process of adaptable learning' (4,71). Viewing a transition as such involves recognizing that a newcomer's performance in a specific situation is shaped by the constantly changing interaction between the individual (their background, outlook, and abilities) and the organization (physical, social, and cultural aspects). As a consequence, residents and other healthcare professionals should approach transitions as flexible learning journeys. To ensure residents learn from this journey, it is important that they have access to suitable guidance and support (4).

6.4 Dynamic interplay of residents' and other healthcare professionals' strategies

The interaction between the individual resident and the organization in OS theory, as described herein and in prior literature (45), aligns with a similar, ongoing discussion in socialization literature (188,189). These papers criticize how socialization usually is described, namely, as a process through which an individual actor internalizes or adapts to the norms and values of the professional environment (101,139,190,191), which may extend over years (37,139). Approaching socialization this way implies that it is a unidirectional process that newcomers passively undergo without agency (188). But perhaps socialization should be envisioned as a dynamic, bidirectional process in which both newcomers and established members actively participate (188,189), thus granting newcomers agency. This type of 'agency' refers to the extent to which individuals can exert control in their personal and social lives (192). In leveraging OS theory to understand individual and organizational strategies, this thesis exemplifies the bidirectionality of the socialization process.

Residents' active participation, or agency, in their organizational socialization process also is evident in several chapters. It is revealed through individual strategies (Chapter 2), illustrating how residents actively foster their socialization and integration into the healthcare team, which is in accordance with other studies that use OS theory (49–52). Residents seek to understand the norms, customs, and rules of interaction within the healthcare team by observing their peers, their supervisors, and the nurses. They also

inquire, experiment with the norms and customs, engage in social relationships, and seek additional information. These strategies help them learn how to collaborate and determine how to interact effectively with supervisors, nurses, and patients, by getting feedback from others. Experimenting with the norms, values, and rules of interaction can also give rise to tensions. Residents encounter physical and psychological barriers when mobilizing their social relations to achieve their goals. The current findings align with previous literature, particularly with regard to interactions with PDs and supervisors, in which residents perceive barriers due to their influential roles in both guiding and assessing residents (38,40,59,187). Our research extends previous literature by highlighting residents' agency in coping with these challenges, leveraging their social network of closer connections. When residents challenge the norms, values, and rules of interaction within a department, these aspects have the potential to evolve (189,193). These findings contrast with previous studies showing that established team members (e.g., faculty, nursing staff) determine how newcomer residents should act and adjust to the existing norms, without any negotiation (194,195).

Chapters 4 and 5 demonstrate residents' agency by showing how some PDs tailor their strategies to meet residents' individual needs (Chapter 4) and by suggesting how other healthcare professionals can adapt their strategies to accommodate residents' needs. By identifying the diversity of residents' preferences and advocating adaptation to individual needs, these chapters show the positive outcomes of empowering residents to take control of their own socialization process and PDs and supervisors to adapt their strategies to individual residents' needs.

6.5 Methodological considerations

This thesis demonstrates methodological rigor by employing diverse theories and methodologies that involved multiple stakeholders and a varied research team, resulting in a concept called 'crystallization'—the use of various theoretical frameworks, diverse data collection methods, and collaborative efforts among researchers to gain a nuanced, multifaceted understanding of the social aspects of residents' transitions (82,97). The robustness of this thesis is demonstrated by integrating various theories from related fields, aligning with the evolving trend in health professions education (HPE) that encourages scholars to draw on theories from adjacent domains (196–200). The lack of theoretical foundations in HPE research has been lamented, in critiques that cite the lack of familiarity with social theories, uncertainty about their application, and the predominant influence of a positivistic, biomedical discourse in the field (196,197). However, the practice of applying theories has become more widely accepted, thanks to some pivotal methodological papers (41,82,200) that have enhanced knowledge and competence in

theory application in HPE. This thesis specifically includes micro-level theories like OS, SN, and SC (45,47,48,51,199). Incorporating theories into subjectivist research enhances transferability, making findings relevant to various situations and contexts (147,196).

The strength of this thesis also lies in its diverse methodological approaches, incorporating various qualitative, mixed-methods, and design choices across its studies. The thesis' structure involve collecting diverse data types, including exploratory interviews, semi-structured interviews, and the innovative use of ego-network sociograms. The sociograms enriched interviews by allowing residents to visually represent the complexity of their social networks and the dynamics within these networks. This relatively new research method added depth and progression to HPE research (119,130). In addition, the use of Q methodology in the final chapter allowed the research team to capture subjective viewpoints in depth, enabling a nuanced analysis of residents' preferences (169). In contrast with the interviews, in the Q methodology, the participants rank the statements anonymously, which reduces social desirability bias and can encourage more honest and authentic responses (201). The diversity in designs also contributed to the depth and robustness of this thesis (97). Chapters 2–5 use a theory-informing design: Chapters 2 and 4 are more exploratory, whereas Chapters 3 and 5 build on previous knowledge and are more explanatory. Chapter 3 employs a two-phase design, and Chapter 5 uses Chapters 2 and 4 as foundation for the statement set in the Q methodology. In summary, the sequence of data collection, theory-informed analysis, and further data collection contributes to an evolving understanding of the social aspects of residents' transition (200).

The sample for this thesis includes residents and PDs from various hospital-based specialties and hospitals, with a wide range of socialization practices. This diverse sampling strategy aligns with the chapter designs, using convenience sampling for exploration (Chapter 2; and Chapter 4) and purposeful sampling for explanation (Chapter 3; and Chapter 5).

Despite its strengths, it is important to acknowledge the inherent limitations in this thesis. First, the studies relied on recall: Chapters 2–4 use interview data (146) such that in Chapters 2 and 3, residents retrospectively reflected on their experiences with their transition period, and the PDs in Chapter 4 had to recall their experiences with several residents. The drawbacks associated with recall include a decline in the quality of gathered data and the inherent limitation of not consistently retaining accurate or detailed information about the past events (146). However, a potential advantage of this approach is that reflecting on a process after a longer time span permits a deeper examination and critical analysis of the events.

Another limitation pertains to the cultural context of this thesis, particularly for residents not in training period, a distinctive feature of the Dutch setting (68). Adopting this

perspective has yielded results that might not be readily transferable to other contexts. However, this contextual specificity is also a strength, in that this research introduces a novel perspective and explores social aspects in a context in which a defined training period is absent.

Another limitation lies in the absence of nurses and advanced care practitioners in the sample, which would have added value by revealing their perceptions and strategies in residents' transitions (40,102).

Finally, for the exploratory designs in Chapter 2 and 4, the research teams used broad interview guides, after which we applied the analytical lens of OS. Because we added the theoretical lens after data gathering, the depth of the information gathered may be limited. Had we opted for a fully theory-informed inductive study design (200), in which theory guides every aspect of the research process, the outcomes could have been different. That said, the purpose of the studies was to enrich understanding of the transition from student to resident from different perspectives, rather than to construct or enhance a theory. In this sense, OS theory played a role in pinpointing processes that occurred beneath the surface and aided in the development of knowledge regarding underlying principles (43).

6.6 Personal reflexivity

Because I adopt a constructivist perspective, which means that reality is subjective and context-specific and that no ultimate truth exists (41), it is imperative to be explicit about my underlying assumptions. This section focuses on my personal reflexivity, wherein I engage in introspection regarding how my personal beliefs and assumptions have influenced my research endeavors (127).

Similar to the residents who contributed to the data sets in this thesis, my personal journey includes many transitions. In 2008, I moved from a little village in Friesland to Amsterdam to start my medical studies. Subsequently, in my clinical path, I transitioned from preclinical medical student to clinical medical student, then to clinical doctor to work as a resident not in training. In 2015, I began my specialty training in anesthesiology. In 2017, I relocated from Leiden to Groningen to continue my training in the northern Netherlands. My last 'big transition' was from being a doctor to becoming a medical education researcher. When I reflect on my transitions, I realize that every transition was meaningful, as I learned by reflecting on these experiences with people in my social network. However, I also experienced stress, due to moving houses, leaving places, and, more important, leaving people. Therefore, a common thread through each of these transitions has been the invaluable support of others who offered a sympathetic ear, guidance, and constructive

feedback to navigate these transformative phases. Another observation during these transitions was the wide spectrum of approaches to orientation and onboarding programs that hospitals and departments offered. This intriguing diversity prompted me to delve deeper into the complexity of transitions and socialization, ultimately leading to the selection of this topic as the focal point of my doctoral thesis.

6.7 Practical implications

The subsequent sections report implications for practice, addressing both organizations (departments, hospitals, and healthcare team members) and individual residents.

6.7.1 How departments, hospitals, and healthcare team members can enhance residents' transitions

Departments and hospitals should adopt a resident-centric perspective when crafting onboarding programs, aiming to impart knowledge on individual strategies and their practical application. These programs should emphasize the significance of building social capital, navigating potential barriers to integration within the healthcare team, leveraging social networks to overcome these challenges, and understanding various organizational strategies. In addition, residents should be exposed to diverse viewpoints during these formal onboarding sessions (dependent, social capitalizing, independent, exploring viewpoints), which will help them identify their own perspectives. If such elements get integrated into onboarding efforts, residents can better navigate the social challenges inherent in the transition. Furthermore, to comply with diverse learning preferences, departments and hospitals should offer a spectrum of onboarding activities, ranging from highly to more loosely structured. This flexibility would provide residents the autonomy to explore, develop, and evolve in their roles, contributing to a smoother and more fulfilling transition process.

To enhance the social aspects of transitions, departments and hospitals should establish faculty development initiatives. These initiatives should extend beyond just supervisors and PDs, targeting peer residents, nurses, and other advanced practice providers who frequently interact with residents. One effective approach is to create interprofessional faculty development initiatives, integrating knowledge of both individual and organizational strategies. These initiatives should particularly focus on the dynamics of the social interactions between newcomer residents and healthcare professionals, emphasizing the ability to discern individual residents' needs in their transitioning. Residency programs should be encouraged to identify residents' preferences for organizational strategies prior to the start of their rotation, with the aim of enhancing their autonomy, competence, and relatedness. Encouraging participants to facilitate a

dialogue between residents and the healthcare team on socialization principles, including norms and culture within the training program or Post Graduate Medical Education (PGME) institution, is crucial. Introducing practical tools such as sociograms into these conversations can enhance discussions and help residents reflect on how to leverage their social networks to achieve their goals.

6.7.2 How individual residents can enhance their transitions

Residents should actively participate in onboarding programs, as detailed in section 6.7.1. Ideally, these programs help residents understand their responsibilities during the transition process, including employing various individual strategies, recognizing the significance of their social capital, addressing the barriers in mobilizing their social capital, and determining their preferences for organizational strategies. Being aware of diverse viewpoints regarding organizational strategies can help residents communicate explicitly with supervisors, PDs, and other healthcare professionals about their specific needs in adapting to their new workplace. Articulating these insights during onboarding courses not only allows residents to internalize this knowledge but also encourages them to share it with their peers, promoting awareness of this crucial subject. Taking leadership in even minor aspects of their work has the potential to contribute to improved well-being among residents.

6.8 Suggestions for further research

Several fruitful research areas remain to be explored. This thesis builds on OS theory's stage models, which describe the progression from a novice member to an integrated and adapted organizational member (45): *anticipation*, which occurs before job commencement; *accommodatio*n, which covers the socialization period during the early stages of employment; and *role management*, in which members develop deeper understanding of the organization (45). The findings of this thesis align with the *accommodation* phase, which involves the learning, sensemaking, and adjustment of individuals to new or changed organizational roles (45). Continued research might incorporate all three phases, in line with the specific suggestions that follow.

The *anticipation* phase for medical residents consists of their time in medical school, internships, and the period outside formal training. Medical school and internships often have well-defined curricula, but the period when residents are not in training offers opportunities for improvement and research. Studies could focus on developing both formal and informal curricula aimed to enhance residents' expectations and ease their transition into specialty training. A formal curriculum centered on OS strategies might shape residents' expectations; informal guidance from role models, mentors, family,

friends, and colleagues can offer additional perspectives to help residents adapt to their new roles (45). Longitudinal research is necessary to assess the impact of such curricula and guidance on residents' perceived quality and comfort of the transition, as well as job satisfaction (25). Research in this vein can help departments and hospitals understand whether such curricula are effective and can guide residents in evaluating whether the curricula actually improve their transition.

The *accommodation* phase, explored in all chapters in this thesis, pertains to residents' and PDs' experiences, as well as residents' preferences for onboarding programs. Future studies should note whether adapting onboarding programs to residents' needs affects their perceptions and the quality of their transition experience (177,202). These studies could compare two groups: one receiving a tailored onboarding program and the other not. The outcome could be focused on residents' perceptions of quality of the transition (e.g., being able to learn, feeling that they are adopted by the healthcare team). This research matters because growing numbers of residents quit their residency, and understanding residents' job satisfaction and retention likelihood could mitigate this attrition (203).

The *role management* phase, relevant to more experienced residents, also offers opportunities for further investigation. Research could explore whether socialization skills and preferences change over time as residents gain experience. Longitudinal studies tracking residents' social capital over time can provide valuable insights into these questions (204,205), especially how their social networks help them cope with challenges. A failure to cope is associated with absenteeism (206). In addition, examining whether more experienced residents, such as final-year residents, differ in their preferences for guidance during their transition to medical specialists would be valuable. It is worth noting that even in the final transition phase, residents may not always feel adequately prepared (207).

This thesis concludes with reflections from Jonathan, the anesthesiology resident whose story opened this thesis, on his onboarding experience in the emergency department.

'I was satisfied with meeting Maaike, the program director, prior to my first day. During this meeting, we discussed my learning goals and preferences for my onboarding period. She showed me literature about residents' different viewpoints regarding their onboarding period. I identified myself with the social capitalizing resident because I appreciate a structured onboarding period, with opportunities for informal social interaction.'

'In my first month, I also participated in an onboarding course for residents. Joining this course with my colleagues contributed to getting to know each other better. Throughout the course, I gained insights into the significance of social relationships, and I learned to represent these relationships in a sociogram. This visualization helped me in identifying my social network, and addressing barriers in social interactions. The course provided me also with strategies to optimize my onboarding period, such as strategies I could use myself, what kind of strategies other healthcare professionals use, and what the department and hospital do. I recognized that this course is part of the hospital's strategy to optimize my transition, and I feel gratitude for organizing such courses.'

'Beyond the formal course, I received valuable support from my peer colleague, Paula, and the nurse, Jason. They offered me guidance on unwritten department rules, including effective approaches to different supervisors. This additional support helped me to smooth my transition'.

Note: This is a fictive narrative based on the findings in this thesis.