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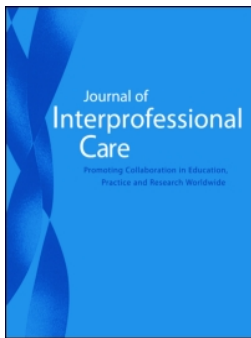
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THEMED REPORT

Identifying facilitators and barriers for implementation of interprofessional education: Perspectives from medical educators in the Netherlands

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ABSTRACT

Patient care and patient safety can be compromised by the lack of interprofessional collaboration and communication between healthcare providers. Interprofessional education (IPE) should therefore start during medical training and not be postponed until after graduation. This case study explored the current situation in the Dutch context and interviewed experts within medical education and with pioneers of successful best practices to learn more about their experiences with IPE. Data analysis started while new data were still collected, resulting in an iterative, constant comparative process. Using a strengths, weaknesses, opportunities, and threats (SWOT) analysis framework, we identified barriers and facilitators such as lack of a collective professional language, insufficient time or budget, stakeholders' resistance, and hierarchy. Opportunities and strengths identified were developing a collective vision, more attention for patient safety, and commitment of teachers. The facilitators and barriers relate to the organisational level of IPE and the educational content and practice. In particular, communication, cohesiveness, and support are influenced by these facilitators. An adequate identification of the SWOT elements in the current situation could prove beneficial for a successful implementation of IPE within the healthcare educational system.

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Introduction

The lack of interprofessional collaboration and reoccurring poor communication between different healthcare professionals is associated with avoidable harm in patients. These compromises in patient care unfortunately occur worldwide and have been extensively reported in medical literature (e.g. Institute of Medicine, 2001). Reform of the health profession education, based on an interprofessional perspective with joint vision or strategy and mutual collaborative learning between healthcare professionals, could enhance patient care (Frenk et al., 2010). Barr, Koppel, Reeves, Hammick, and Freeth (2005) defined interprofessional education (IPE) as, 'members or students of two or more professions associated with health or social care, engaged in learning with, from and about each other' (p.11).

Previous research shows that students trained in interprofessional teams are more likely to develop collaborative skills and attitudes needed for effective teamwork with other healthcare professionals (Reeves et al., 2016). In medical education literature, IPE is strongly advocated as part of health educational reform (Bridges, Davidson, Odegard, Maki, & Tomkowiak, 2011).

Background

Accreditation of eight medical schools in the Netherlands showed poor attention for IPE within the curriculum, and the

accreditation committee strongly recommended to anchor IPE within medical curricula (QANU, 2012). Although the attention recently increased for IPE in graduate medical education, there still seemed room for improvement. Therefore, a special interest group (SIG) on IPE within the Dutch–Flemish Association of Medical Education (NVMO) was started in March 2014. SIG develops materials, publish research, exchange ideas, best practices and experiences, and organises meetings to achieve their own group goals.

The first objective of the IPE-SIG was to investigate the current state of IPE in medical education and practise in the Dutch context to get insight into goals the IPE-SIG could set for the future and at the same time to get acquainted with experts. The central question we wanted to answer is: What are barriers and facilitators for realising IPE in healthcare in the Dutch context?

Methods

Data collection and analysis

This case study employed convenience and snowball sampling technique to identify 14 professionals with specific knowledge and expertise regarding IPE for semi-structured interviews. These individuals fulfilled varied roles and had different positions in either higher vocational education ($n = 7$) or university-based education ($n = 7$)¹ but were all involved in IPE (Table 1).

Table 1. Overview of the role and background of respondents ($n = 11$) and the interview medium.

	Role of respondent in relation to IPE	Gender	Interview method
P1	Professor, dean of medical school	M	Phone
P2	Chair of an accreditation committee	M	F-t-F
P3	Dean of school for health professionals	F	Phone
P4	Educator and teacher of IPE course	M	F-t-F
P5	Editor book on IPE	F	F-t-F
P6	Professor, dean of school for health professionals	F	F-t-F
P7	Head of department of clinical skills training	F	F-t-F
P8	Senior advisor on quality and patient safety	M	F-t-F
P9	Educator and teacher of IPE course	F	F-t-F
P10	Coordinator of IPE projects medical school	F	F-t-F
P11	Professor, dean of medical school	M	F-t-F

Selection was based on our knowledge of pioneers and experts, but to avoid researcher bias, we asked participants to also point us to others. All participants agreed to an interview.

The interview questions were derived from a strength, weakness, opportunity, and threats (SWOT) analyses. A SWOT focuses on both internal factors, such as marketing, which are within the influence of organisations, and external factors, such as economic factors or government politics, which are beyond its scope (Ghazinoory, Abdi, & Azedegan-Mehr, 2011). A range of questions were asked to identify and explore facilitating and impeding factors related to the implementation of IPE within each participant's institution. Where possible a research pair (JdV, PdM, HV, KR) undertook the interviews in person or used the telephone if a face-to-face interview could not be scheduled.

Data analysis started while new data were still collected, supporting an iterative, comparative process. Thematic analysis was sustained by qualitative data analysis software MaxQDA version 11 (Braun & Clarke, 2006). The four categories of SWOT were used as a framework for identifiable codes. After analyses, initially coded data were sent back to the authors for a member check to establish the validity of the researchers' interpretation of the collected data (Sandelowski, 1993). At this point, one institution objected to publication and their data were removed from the study.

Ethical considerations

We initially refrained from seeking ethical approval since the interviews were used to set goals for the IPE-SIG. In retrospect, the study was examined by the Michigan State University research ethics committee and was deemed to be exempt from formal ethical approval.

Results

Data relating to facilitators and barriers were categorised according to four quadrants of the SWOT (Table 2). We identified facilitators and barriers related to *organisational prerequisites*: requirements such as resources, sufficient time for staff, and support from management to prioritise/facilitate IPE within organisations. Other facilitators and barriers pertained to the practical level of executing IPE: the *educational content and practice*, for example, curriculum assignments suited to IPE, committed teachers, and faculty development training.

The data showed high agreement among participants, for example, on how *communication* between professionals can facilitate IPE. Participants also explained how lack of knowledge of each other's competencies and the absence of mutual jargon hindered implementation of IPE. They felt discussions about IPE within organisations and on government level was a key element that needed to be advocated in order to accomplish a successful implementation of IPE.

One particular school of health professionals tackled the lack of common language by using the International Classification of Function, Disability, and Health² in their eight separate educational health programmes to facilitate terminological clarity and collaboration between all students. *Cohesiveness* was often mentioned as facilitator and lack of cohesiveness as barrier. The absence of a joint vision, interests, and educational goals, and also the logistics of physically bringing varied healthcare students together hampered IPE, whereas mutual starting points, collaborative attitudes, and the same cultural values were mentioned to promote the implementation of IPE.

According to participants, sufficient *support* and resources such as time and budget were pivotal for the implementation of IPE. Organisational or government-issued budget cuts decreased opportunities to invest in IPE as did the lack of interprofessional faculty training, interprofessional guidelines in educational blueprints, and the focus on uni-professional guidelines.

Six committed pioneers in IPE explained how they had been fully supported by their management. This enabled them to establish a mutual vision and joint educational long-term goals, on both institutional and government level.

Discussion

As this study indicated, facilitators and barriers influence the organisational level of health education institutions to support the implementation of IPE. The implementation of IPE is facilitated by communication, cohesiveness, and support. Barriers seemed frequently related to a lack of communication, cohesiveness, and support. Our findings are consistent with Lawlis and colleagues (2014) review on IPE in which they reported a similar range of barriers and facilitators for IPE. In particular, our results concur with the individual, institutional, and governmental stakeholder levels identified by these authors.

These results also resonate with theories of change management: only with good communication and support, collaboration is possible. Communication between different parties results in mutual understanding and can lead to buy in. The findings of this study help us to understand the complexity of implementation processes of IPE in the Dutch context, and they also point out crucial facilitators for IPE best practices. Specifically, driving forces behind best IPE practices on the *individual* level were dedicated committed staff and policy makers who acknowledged the sense of urgency for IPE within the medical field and were prepared to collaborate with others based on mutual respect.

Therefore, implications for practice derived from our study are the importance of good leadership such as committed deans, faculty, and teachers on the *institutional* level and on the *government* level, for example, policy makers and opinion leaders.

Table 2. Strengths, weakness, opportunities, and threats on the organisational and educational level according to respondents.

Internal influences		Helpful	Harmful
Strengths Organisational prerequisites	Communication A small, well-connected institute makes communication with the different professions easy (P6).	Weakness Organisational prerequisites	Communication Different healthcare professionals speak different 'languages', this hinders collaboration and discussion (P1).
	Cohesiveness The creation of shared IPE vision with interprofessional team members of healthcare professionals creates a support base, reduces biases, guides discussions, and creates clarity (P11). Education of different healthcare workers in one organisation provides opportunities for advocating the same cultural values, needed to collaborate (P9). IPE creates and facilitates opportunities to share and exchange experiences, and knowledge. This increases awareness, knowledge, commitment, and motivation for further IPE developments (P4).		Cohesiveness (or lack of) Unknown prejudices about other people's profession, this affects collaboration in practice (P8). Too much focus on an individual's task instead of on the overarching needs and goals (P7). Hierarchy and status differences between different healthcare professional makes collaboration hard (P2). Difference between healthcare educational settings and real-life work practice creates a gap and hinders collaboration and discussion (P1). A culture in which power and hierarchy on the work floor are important hinders collaboration and initiatives within healthcare organisations (P9, P10).
Educational content/practice	Support The ability to access one digital patient file reduces errors and enhances communication (P2).	Educational content / practice	Support (or lack of) Lack or the sense of urgency and leadership for IPE throughout the organisation (P1, P5).
	Communication When patient-centred care can be used as a focal point for curriculum outcomes, this reduces bias, guides discussion, and creates clarity (P2, P3). Joined interest in communication training: this leads to more understanding of each other profession, professionalism and learning each other's language, and sympathise with each other (P2). Cohesiveness Committed teachers stimulate IPE with their enthusiasm and perseverance, and they help reducing resistance in an interprofessional team (P4). Using simulation in education facilitates bringing people with different professional background and from different professions together (P11). When IPE is practised at the work floor, it gives the possibility to exchanging teachers, so they experience working in each other's setting: this leads to insight into and understanding of each other's area of expertise and competencies (P3).		Communication (or lack of) Lack of mutual jargon between different healthcare professionals, even when educated within the same institute (P3). Cohesiveness (or lack of) No overarching competencies are defined for the healthcare providers as a group. Collaboration and exchange are not stimulated (P8). IPE often happens in informal learning situations. When formal learning situations are over acknowledged, IPE does not receive the deserved attention (P3, P9). Fear that IPE overshadows other important educational content: collaboration is seen as less important than the clinical content (P2). An attitude or prejudice (personal, or as a profession) that does not facilitate cooperation (P10). Support (or lack of) Lack of faculty development courses within an institution to stimulate IPE (P7). Large organisation having to deal with complexity in student schedules, especially when students with different professional background need to collaborate, training them in IPE is than a real planning challenge (P3, P6, P10, P11). An unaddressed hidden curriculum may lead to resistance towards IPE (P2).

External influences	Opportunities		Threats	Communication (or lack of)	
	Organisational prerequisites	General public	Organisational prerequisites	Healthcare insurance companies	Healthcare professionals
	<p>Communication General public becomes more aware of patient safety and stresses the importance of this outcome variable. This may lead to an increase in accountability of the interprofessional team (P2, P5).</p> <p>Cohesiveness Increasing complexity in patient care (multi-morbidity; poly pharmacy) creates the sense of urgency for collaboration (P2). Societal changes such as the ageing, increased complexity in care, super specialisation in medicine, lead to more collaboration between general and specialised care (P5, P7).</p> <p>Support When media brings out cases (e.g. unnecessary death, lack of awareness child abuse), this creates binding within an interprofessional team and motivates healthcare providers (P3, P4, P8, P11).</p>	<p>Communication No clarity about who is legally responsible for the patient this hinders the discussion and hampers collaboration in IPE (P2).</p> <p>Cohesiveness (or lack of) Influence of the healthcare insurance companies can hinder IPE (P2). Conflicting cultural values within the various healthcare professionals hampers the collaboration on the work floor (P6, P9). The enhanced complexity of patient care exceeds the individual professional's expertise. Admitting to that can go against the organisations culture (P10).</p> <p>Support (or lack of) Time, logistics, money/budget, and number of students (P1–P11). Not enough attention for IPE on the political agenda, and so, it does not enhance the awareness of urgency (P5). Budget cuts within healthcare do not support exploration of new pathways (P1–11).</p>			
	<p>Communication When general disciplines, such as family doctors and community nurses, signal problems, their feedback to educators in hospitals or medical schools can help to focus on IPE (P2, P3).</p> <p>Cohesiveness Collaboration with other institutions about planning of electives gives opportunities to work on IPE (P6, P7, P10). Various health students meeting each other early on in their medical training (P7). Patient-centred care as mutual educational goal (P8).</p> <p>Support The organisation of interprofessional faculty development courses can promote IPE (P10). Implementation of new Blueprints for Medicine, Nursing, and paramedic professions, facilitates IPE (P2). Reports from accreditation committees with recommendation for curriculum changes have a stimulating influence (P1, P3).</p>	<p>Communication (or lack of) The importance of communication with other professionals receives too little attention in medical curricula (P8).</p> <p>Cohesiveness (or lack of) 'Competition' for having high quality or innovative education leaves little space for developing IPE (P4, P6, P9, P11). The diversity between real-life practices makes it difficult to create overarching themes and guidelines for education, and it does not stimulate IPE (P3, P10).</p> <p>Support (or lack of) Nationwide monodisciplinary guidelines do not facilitate IPE (P4, P10). No nationwide educational profile for nurses hampers collaboration between different medical schools (P6). Budget cuts within healthcare affect the education, especially those areas that focus more on the 'soft skills' like collaboration (P1–11). Lack of attention for IPE on educational conference such as the NVMO or the Association of Medical Education in Europe (AMEE). They could influence the way in which IPE is set on the agenda (P8).</p>	Educational content/ practice		

Professional leaders advocate patient safety and high-quality care as important outcomes, recognise how IPE could facilitate those goals, and influence political agendas. They enhance the implementation of IPE with sufficient support and stimulate collaboration of institutions by good communication, mutual vision, and goals, on all three levels. Support by top-down policy, good leadership, and committed individuals focussed on IPE, which can boost its implementation.

This study has a number of limitations. We have explored this area only briefly. In-depth interviews on specific items in the SWOT could be a good step for further research. The subjectivity of expert sampling might have enhanced researcher's bias, meaning that it could be a sample that is not totally representative for a Dutch setting, experts could have pointed us more towards *successful* best practices, while unsuccessful best practices are not included. Further, outcomes are related to the Dutch context, and repeating the study in other countries could provide information, which is more generalisable.

Concluding comments

Implementing IPE is a complex process because it is affected on individual, institutional, and government levels (e.g. Lawlis et al., 2014). We found facilitators and barriers that were related to these three levels. In particular, communication, cohesiveness, and support are influenced by both facilitators and barriers. Good leadership and committed teams are able to enhance communication, cohesiveness, and support, necessary for the successful and sustainable implementation of IPE.

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Notes

1. Dutch higher education is organised as a binary system, consisting of 14 universities and over 40 institutions for higher vocational education—the Dutch term is *hogescholen*. For more information see De Boer, Enders, and Leisyte (2007).
2. See: www.who.int/classifications/icf/en/

Declaration of interest

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of this article.

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