Design, implementation and evaluation of a postgraduate workshop on cross-border healthcare in Europe – Mixed methods research

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Abstract

Introduction: In European border regions, healthcare providers join forces to make full use of the potential of healthcare. Trainees need to be aware of the challenges and opportunities of cross-border healthcare. To increase such awareness, a workshop was designed, implemented and evaluated. The workshop was entitled ‘Creating cross-border collaborators’ and combined elements of contextual, collaborative and reflective learning. The aim of the study was to understand how this workshop enhanced trainees’ awareness of challenges and opportunities of cross-border healthcare.

Methods: Using a mixed-methods approach, focus-group interviews (QUAL) were held with trainees (N = 16) and trai- nees (N = 13) completed a survey (QUAN) about their workshop experiences. The workshop was held three times for three different groups of trainees.

Results: Quantitative analysis (of surveys) demonstrated increased self-reported awareness of cross-border healthcare. All learning principles contributed to this awareness, however reflective learning slightly less. Qualitative analysis (of focus-group interviews) unearthed the following four themes: (1) Attention to cross-border healthcare fostered awareness of its complexity; (2) real-life examples stimulated recognition of challenges and opportunities; (3) discussions in interdisciplinary and international groups helped to see different perspectives; and (4) reflection made trainees think about their own role and perspective. Quantitative and qualitative data are strongly cohered.

Conclusion: According to participating trainees, a workshop with elements of contextual, collaborative and reflective learning did improve trainee awareness of cross-border healthcare. This study highlights that theoretical insights into learning can and should inform the design and evaluation of workshops.

Keywords

International cooperation, European Union, education, internship and residency, interdisciplinary communication, focus groups, surveys and questionnaires

Introduction

With rising specialization and centralization of healthcare, comes a need to make use of medical expertise and resources more efficiently. This call for efficiency extends across national borders, resulting in cross-border healthcare. Especially in border regions, where healthcare providers from different countries are in geographical proximity, cross-border healthcare is beneficial.1 In European border regions, healthcare providers join forces, for example, to facilitate specialized treatment2,3 or to support each other in a global crisis such as the Covid-19 pandemic. Additionally, patients can take the initiative themselves to cross borders to a foreign hospital because

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it offers more specialized care, has a shorter waiting list or is closer than the nearest hospital in their own country. In reaction to these potential benefits, the European Committee has started to actively promote cross-border healthcare by informing European patients seeking healthcare in other European countries. Moreover, the European Union proposes and supports regional cross-border initiatives that contribute to the sustainability of regional healthcare systems.

Cross-border healthcare in border regions comes with challenges for both patients and professionals. Earlier research has demonstrated, for instance, that differences in language, systems and culture can complicate the involvement of patients. Similarly, professionals involved in cross-border healthcare may experience language barriers, inconsistencies in task division, and differences in education, policy and culture. According to a recent study, healthcare professionals are often unaware of such differences and of how these differences can complicate cross-border healthcare. When healthcare professionals have incomplete or inaccurate ideas of each other’s responsibilities or competencies, their expectations of how tasks should be divided or how patient care should be arranged might be equally wrong. This may result in incorrect patient handover, which has time and time again been associated with patient safety risks. When insufficiently considered and deliberated, cross-border healthcare, rather than bringing benefits, can ultimately pose risks.

Previous studies have reported that cross-border healthcare is not sufficiently covered, if at all, in medical training. As a result, physicians working in border regions are not prepared when confronted with cross-border healthcare. By introducing cross-border healthcare in postgraduate specialty training, future physicians might be better able to recognize relevant differences in cross-border healthcare and to deal with opportunities and challenges that come with these differences.

In this study, a workshop about cross-border healthcare for trainees in a European border region was designed and evaluated. The research question was: ‘How does the workshop entitled “Creating Cross-border Collaborators” with elements of contextual, collaborative and reflective learning enhance trainees’ awareness of the challenges and opportunities of cross-border healthcare?’

**Methods**

Adopting a design-based research approach, a workshop was designed based on previous research into healthcare professionals’ experiences and on theoretical insights into learning. The workshop and its contribution to the intended learning outcomes were evaluated in a mixed-methods study with a sequential explanatory design, consisting of concurrent focus-group interviews (QUAL) and surveys (QUAN).

**Setting**

The workshop was developed as part of SafePAT, an Interreg-project to improve patient safety in the Meuse-Rhine Euroregion. In this region, the borders of Belgium, Germany and the Netherlands meet. Ever since its establishment in 1976, the region has been a pioneer in cross-border healthcare collaborations. Healthcare professionals in this region are therefore likely to be involved in cross-border healthcare. The workshop was held three times, twice in June 2020 and once in November 2020, for groups of trainees from a variety of backgrounds (i.e. radiology, anaesthesiology, microbiology, paediatrics and cardiology). All participants were trainees at the Maastricht University Medical Center + (MUMC +), which is located in the heart of the Meuse-Rhine Euroregion.

Trainees from the MUMC + are all connected to a regional education network in the south-east of the Netherlands. This network, called OOR ZON (a Dutch acronym for Education and Training Region South East Netherlands), provides interdisciplinary education to all trainees in the region (e.g. workshops about patient safety, organ donation and healthcare costs). The workshop was included in their program as an elective workshop.

**Intervention**

In this study, educationalists and healthcare professionals working in the border region designed, implemented and evaluated a workshop entitled ‘Creating Cross-Border Collaborators’ for trainees in a European border region. The aim was to foster awareness of challenges and opportunities that come with cross-border healthcare. The workshop design was based on three learning principles that fit the aim of the workshop: (1) contextual learning, (2) collaborative learning and (3) reflective learning. The first principle, contextual learning, refers to learning that is centred around authentic problems and tasks to stimulate the transfer of learning to practice. It allows participants to learn from and for the context in which their knowledge is to be used. The second principle, collaborative learning, entails that participants learn from and with each other, by elaborating on each other’s input and noticing differences and similarities in perspectives. The last principle, reflective learning, refers to participants critically questioning their own ideas. Reflection helps participants to see the limitations of their own perspective and recognize missing information. Moments of reflection help participants to understand, broaden or change their own views on cross-border healthcare. The workshop consisted of three parts in which these learning principles were incorporated: an individual preparatory assignment, an online group session and an individual reflection assignment. Both individual assignments were paper-based. The
online group session took place in a secure video-meeting environment (Microsoft Teams, version 1.3.00.30874). Each online session was moderated by two trainers with experience in cross-border healthcare in the Meuse-Rhine Euroregion. Table 1 gives an elaborate description of the workshop parts and of how the learning principles mentioned in the Introduction section were incorporated into the workshop format.

**Participants**

Participants were recruited through OOR ZON. All trainees connected to this network received an email in which the workshops were announced. Considering the interactive nature of the workshop, a maximum of eight participants per session was apprehended. Registration for the workshop was on a first come, first served basis. Twenty-one trainees signed up for the workshop, one of whom dropped out before the preparatory assignment due to a lack of time, three of whom dropped out before the online session due to sickness or technical issues, and one of whom did not participate in the evaluation research. The 16 participants remaining were all postgraduate trainees in various specialties, including anaesthesiology, medical microbiology, neurology, rehabilitation, rheumatology, paediatrics, psychiatry, radiology and surgery. They had all started training between 2014 and 2020. Five, four and seven trainees attended the first, second and third workshops, respectively.

**Data collection**

Data were collected by means of surveys and focus-group interviews. The respective data collection instruments were iteratively constructed by four authors (JB, DV, MB and DD). The purpose of the survey was to get an overall impression of how participants experienced the workshop and of how the learning principles enhanced or hindered their learning, learning outcomes and the relation between them. The survey consisted of 16 closed-ended items to be rated on a 5-point Likert scale, including an option to elaborate. Items reflected the three principles (e.g. ‘The different backgrounds of participants helped me see cross-border healthcare from different points of view’, which reflected collaborative learning). See Online Appendix 2 for an overview of the survey items. The purpose of the focus-group interviews was to gain insight into participants’ perceptions of the workshop design. Questions addressed the extent to which participants felt that the three learning principles enhanced or hindered their awareness of cross-border healthcare (e.g. ‘Did the discussion give you new ideas about challenges and opportunities of cross-border healthcare?’, which reflected collaborative learning). See Online Appendix 1 for the semi-structured focus-group interview guide.

The workshop was held three times, twice in June 2020 and once in November 2020. Participants received information about the evaluation survey and focus-group interview at registration. Two weeks prior to the online session, participants received the preparatory assignment and a letter informing them about the research procedure. Before the online session took place, they were asked to give informed consent. Directly after this online session, one of the trainers (DV) conducted the focus-group interviews. The focus-group interviews took approximately fifteen minutes and were audio-recorded and transcribed non-verbatim by the first author (JB). The surveys were conducted directly after the reflection assignment, one to three weeks after the online session. Surveys were conducted using a licensed online survey tool (Qualtrics).

**Data-analysis**

To analyse the survey data, descriptive statistics were computed (means and standard deviations) using Excel, version 16.46. The focus-group interview data were analysed following the procedure set out by Braun and Clarke21: (1) familiarize yourself with your data, (2) generate initial codes, (3) search for themes, (4) review themes, (5) define and name themes, and (6) produce the report. Three authors (JB, MB and SH), neither of whom were involved as trainers, individually analysed the interview transcripts using the three learning principles and the intended learning outcomes as sensitizing concepts. They concluded this process by discussing their findings to refine the conceptual description. Thereafter, quantitative and qualitative analyses were collectively appraised, compared and checked for inconsistencies. In this triangulation, the themes identified in focus-group interviews were explanatory to the descriptive statistics of the survey.

**Reflexivity**

The authors have varying academic backgrounds and experiences that influence their perspectives. JB is a qualitatively trained researcher with a degree in Health Sciences. MB is a quantitatively trained researcher with a degree in Psychology. Together, they have interviewed over 50 professionals and patients about their healthcare experiences in border regions. SH is an educationalist with a degree in Learning Sciences. LV is a specialist in anaesthesiology, intensive care medicine and emergency medicine, who, in addition to being a medical education specialist and a researcher in patient safety, works as a cross-border healthcare professional in the Euregion herself. She was a trainer for two of the workshops. DD is an educational scientist who has researched small-group teaching in medical education from a cognitive, social, and, notably, a student and supervisor perspective. Finally, DV is an educational and cognitive scientist who has conducted research in the field
of instructional design and international education. She was a trainer in all three workshops.

**Ethical considerations**

The study proposal was reviewed and approved by Maastricht University Health, Medicine and Life Sciences Ethics Review Committee (ID: FHML-REC/2020/005/Amendment 2).

**Results**

The focus-group interviews and surveys were concurrently analysed. Whereas the survey data gave a general impression of the workshop, the focus-group data provided explanations as to how and why the design of the workshop and the underlying learning principles contributed to cross-border healthcare awareness. Therefore, the survey data were presented first, followed by a report of the focus-group interview data, ending with a combined appraisal of the data.

Thirteen out of sixteen respondents completed the survey. Table 2 gives an overview of the survey results. Three participants made use of the open fields to provide additional comments. The survey results show that, according to participants, the workshop created awareness of both the challenges (M = 4.54, SD = 0.50, 1–5 scale) and opportunities (M = 4.00, SD = 0.55) of cross-border healthcare. Participants perceived the examples as realistic (M = 4.08, SD = 0.47) and as contributing to more awareness (M = 3.85, SD = 0.86; M = 3.69, SD = 0.72). They appreciated each other’s diverse backgrounds in the workshop (M = 4.62, SD = 0.62) and felt the discussions with others made them more aware of challenges and opportunities of cross-border healthcare (M = 4.23, SD = 0.42). Participants gave slightly lower scores for the extent to which the workshop helped them to develop their own perspectives (M = 3.77, SD = 0.80) or changed their views on cross-border healthcare (M = 3.54, SD = 0.84).

Across the focus-group interviews, four themes that described participants’ perceptions of the workshop were identified: (1) attention to cross-border healthcare fostered awareness of its complexity, (2) real-life examples stimulated recognition of challenges and opportunities, (3) discussions in interdisciplinary and international groups helped to see different perspectives and (4) reflection made trainees think about their own role and perspective. These themes were related to the intended learning outcome (Theme 1) and the learning principles (Themes 2–4).

**Theme 1 – Attention to cross-border healthcare fostered awareness of its complexity**

Participants said that the workshop led to a better understanding of the challenges and opportunities that come

<table>
<thead>
<tr>
<th>Table 1. Description of workshop parts and learning principles.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Workshop part description</strong></td>
</tr>
<tr>
<td>Preparatory assignment</td>
</tr>
<tr>
<td><em>Half an hour; one to two weeks before the online session</em></td>
</tr>
<tr>
<td>Online group session</td>
</tr>
<tr>
<td><em>Two and a half hours</em></td>
</tr>
<tr>
<td>Reflection assignment</td>
</tr>
<tr>
<td><em>One hour; one to two weeks after the online session</em></td>
</tr>
<tr>
<td><strong>Contextual learning elements</strong></td>
</tr>
<tr>
<td>Participants describe their personal experiences with and perspectives on cross-border healthcare (perceived pros and cons of cross-border healthcare) and reflect on a paper-based cross-border healthcare case from a healthcare professional perspective.</td>
</tr>
<tr>
<td>Participants discuss the preparatory assignment and receive information on cross-border healthcare in the border region. They discuss another paper-based case of a patient crossing a border for healthcare. They discuss how they can deal with challenges and opportunities of cross-border healthcare in their own context.</td>
</tr>
<tr>
<td>Participants reflect on what they learnt from the workshop and how this affected their perspectives on cross-border healthcare.</td>
</tr>
<tr>
<td><strong>Collaborative learning elements</strong></td>
</tr>
<tr>
<td>Participants work with personal experiences and a paper-based case.</td>
</tr>
<tr>
<td>Participants work with personal experiences, experiences of other participants and a paper-based case.</td>
</tr>
<tr>
<td>Participants transfer outcomes of the workshop to their own context.</td>
</tr>
<tr>
<td><strong>Reflective learning elements</strong></td>
</tr>
<tr>
<td>N/A</td>
</tr>
<tr>
<td>Participants share and discuss personal experiences and perspectives on paper-based cases, and collaboratively think about how to deal with challenges.</td>
</tr>
<tr>
<td>Participants reflect on whether and how the workshop changed their perspective on cross-border healthcare.</td>
</tr>
<tr>
<td>Participants reflect on personal experiences and describe perspectives in cross-border healthcare.</td>
</tr>
<tr>
<td>Participants voice personal experiences with and perspectives on cross-border healthcare and reflect on differences.</td>
</tr>
</tbody>
</table>
Theme 2 – Real-life examples stimulated recognition of challenges and opportunities

Participants felt that sharing and discussing real-life examples of cross-border healthcare in the workshop was helpful to see both the challenges and opportunities of cross-border healthcare. They were of the opinion that the examples provided in the workshop were recognizable and stimulated discussions:

That was a really similar case I had recently, so… Yeah, I could imagine it to happen … Then you have certain key points you can focus on and discuss further ….

(Participant 3, session 1)

Although some participants had not yet experienced cross-border healthcare in practice, they were still able to recognize the examples: ‘The example … cannot be completely traced back to [my specialty] …, but I do recognize the problems that arise’ (Participant 3, Session 2). Some participants noted that it might be difficult to link what they had learnt in the workshop to practice, especially those who had just started training or had little patient contact in their specialty: ‘as the microbiologist … it is more difficult to arrange something for a patient, because we don’t see a patient’ (Participant 6, Session 3). For these participants, the examples were especially useful in helping them prepare for practice: ‘Thanks to … the case discussion, if you encounter this problem in daily practice, I think I am a little bit more prepared for this situation’ (Participant 1, Session 3).

However, participants also felt that the paper-based cases were all quite similar. They, therefore, proposed to extend the set of cases to make it more variegated as this would allow them to explore more authentic situations, thereby enhancing the transfer of learning to practice: ‘So maybe the case already helps you to go to a certain point, but if you would talk about a different case, you would

Table 2. Summary of survey data (N = 13).

<table>
<thead>
<tr>
<th>Theme 2</th>
<th>Awareness of cross-border healthcare</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The workshop created awareness of the challenges of cross-border healthcare.</td>
<td>4.54 (0.50)</td>
</tr>
<tr>
<td></td>
<td>The workshop created awareness of the opportunities of cross-border healthcare.</td>
<td>4.00 (0.55)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Theme 2</th>
<th>Contextual learning</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The workshop is relevant to my own work.</td>
<td>3.77 (0.70)</td>
</tr>
<tr>
<td></td>
<td>Examples (i.e. paper cases) in the workshop were realistic.</td>
<td>4.08 (0.47)</td>
</tr>
<tr>
<td></td>
<td>Examples in the workshop helped me see possible challenges of cross-border healthcare in my own work.</td>
<td>3.85 (0.86)</td>
</tr>
<tr>
<td></td>
<td>Examples in the workshop helped me see possible opportunities of cross-border healthcare in my work.</td>
<td>3.69 (0.72)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Theme 2</th>
<th>Collaborative learning</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The different backgrounds of participants helped me see cross-border healthcare from different points of view.</td>
<td>4.62 (0.62)</td>
</tr>
<tr>
<td></td>
<td>The workshop stimulated discussion about cross-border healthcare between participants.</td>
<td>4.69 (0.46)</td>
</tr>
<tr>
<td></td>
<td>The workshop made me think about cross-border healthcare from different angles.</td>
<td>4.44 (0.50)</td>
</tr>
<tr>
<td></td>
<td>Sharing and discussing with others made me aware of challenges and opportunities of cross-border healthcare.</td>
<td>4.23 (0.42)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Theme 2</th>
<th>Reflective learning</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The workshop broadened my awareness of cross-border healthcare.</td>
<td>4.38 (0.49)</td>
</tr>
<tr>
<td></td>
<td>The workshop helped me to develop my own perspective on cross-border healthcare.</td>
<td>3.77 (0.80)</td>
</tr>
<tr>
<td></td>
<td>The workshop changed my view on cross-border healthcare.</td>
<td>3.54 (0.84)</td>
</tr>
</tbody>
</table>

with cross-border healthcare: ‘I really take with me … the awareness of the complexity of the cross-border collaborations. … I think there are many opportunities to make things better’ (Participant 5, Session 3). They realized that cross-border healthcare can be challenging, but also beneficial when executed properly:

First, I thought it wasn’t particularly a good thing because of the complications that can occur and the lack of information you sometimes have …, but now I feel that if we, if you do it right, then it’s really something that … can actually be a positive thing. (Participant 1, Session 1)

As participants talked more about their awareness, they expressed a wish to invest more time in solutions to overcome challenges. During the workshop, ‘the majority of the time was more about the challenges …. Maybe the next step is to give more time to speak about the solutions that we can use for this sort [of] challenges’ (Participant 3, Session 3).

Ultimately, participants felt more prepared for cross-border healthcare. They reported that the workshop made them see how they could deal with and learn from cross-border healthcare: ‘Next time I see a patient with … this problem, maybe I would not have all the solutions but at least I can talk to people who maybe will have a good input and a better solution …’ (Participant 1, Session 3).
have a completely different discussion; that is also possible’ (Participant 3, Session 1).

**Theme 3 – Discussions in interdisciplinary and international groups helped to see different perspectives**

Participants agreed that attending the workshop with an interdisciplinary group of trainees was of added value. In their view, the group discussions made them ‘see … [cross-border collaboration] from [the perspective of] different specialties’ (Participant 3, Session 2), which offered ‘… more depth. If I were to discuss this with my colleagues only, I think we would say a bit of the same things’ (Participant 3, Session 2). Participants also appreciated the fact that the online session was facilitated by trainers from different backgrounds and nationalities. This made them feel more comfortable communicating with colleagues from across the border:

This is the first time that I speak directly, through video communication, with a colleague across the border. … This is a direct example of how communication might be easier. … It will be much easier for me to pick up the phone and talk to her or video call her. (Participant 4, Session 1)

Notably, participants’ suggestions for improvement of the workshop design largely concerned collaborative aspects. For instance, they suggested to ‘invite people from the same education level’ (Participant 3, Session 1) from other countries to the workshop so that they could ‘get to know them and also see their experience, and to have different views from them’ (Participant 3, Session 1).

**Theme 4 – Reflection made trainees think about their own roles and perspectives**

As participants reflected on cross-border healthcare, some contemplated their own roles and the responsibilities they had or did not have: ‘I often hear “yes, but this is not my responsibility, I am not certified to do that,” but I still have to solve it. … you may not be able to solve it yourself; you still have to find someone who will do it for you’ (Participant 1, Session 2). In these reflections, some of the participants considered small things that they themselves could do in cross-border healthcare. One of the participants, for instance, realized that informing patients about practical differences between hospitals, such as the availability or absence of fresh towels, could help: ‘You sometimes forget what is important for patients when they are in hospital. … I mean, something as trivial as towels becomes important and it’s that easy sometimes’ (Participant 1, Session 1). Although naming such possible actions was easier for some participants than for others, most shared the view that the workshop had expanded their horizons: ‘You have less blinders. … You can look a little wider or so at certain things’ (Participant 1, Session 2). Yet, some participants who had little experience with cross-border healthcare had difficulties reflecting on their own role: ‘It was difficult for me to reflect on the kind of stages [in which] I can be beneficial, I can be of help, and on how can we improve that with my voice?’ (Participant 6, Session 3).

**Triangulation**

The results of quantitative and qualitative analysis cohere. The survey data indicated that participants feel aware of cross-border healthcare challenges and, although to a lesser degree, opportunities. In line with this, participants voiced a need for more attention to opportunities of cross-border healthcare in focus-group interviews. Moreover, in the surveys, participants appreciated collaborative and contextual learning slightly more than reflective learning. The focus-group interviews indicated similar sentiments and offered explanations as to why appreciation of these learning principles differs. Participants were enthusiastic about the opportunity to learn together (collaborative learning) and were able to learn from examples outside of their own disciplines (contextual learning), but some found it challenging to transfer new insights into their own practice (reflective learning), for example, due to lack of experience.

**Discussion**

The results of the study clearly suggest that the workshop entitled ‘Creating Cross-border Collaborators’ made trainees more aware of challenges and opportunities of cross-border healthcare. Quantitative data demonstrated that all three learning principles were appreciated and assumedly helped raise participants’ awareness of cross-border healthcare. Qualitative data provided explanations as to how and why learning principles may contribute to awareness. Triangulation of quantitative and qualitative data indicates coherence of these results. Working with examples of cross-border healthcare (contextual learning) helped participants to recognize challenges and opportunities in relevant situations. Moreover, being able to discuss cross-border healthcare with peers (collaborative learning) helped them to see different perspectives. Most participants felt that the reflection assignment made them contemplate their own role in delivering cross-border healthcare (reflective learning). Concluding, the workshop, indeed, served its purpose.

Although the three learning principles contributed to participants’ learning in their own unique way, the results suggest that there was strong cohesion among them. For example, qualitative data indicated that contextual learning and collaborative learning were mutually reinforcing, as discussing authentic cases in multidisciplinary groups
helped participants to recognize how different aspects of a case could be relevant to different stakeholders. Similarly, hearing about the perspectives of others on authentic cases helped participants to recognize and expand their own roles and perspectives, hence prompting reflective learning. Although the separate appreciation of the integrated learning principles offered helpful insights into how the different workshop elements enhanced learning or how they could be strengthened, their true power lies in their mutual interplay.

Despite trainees’ positive views about the workshop, they offered suggestions for further improvement of the workshop design. First, the workshop could benefit from more varied examples of cross-border healthcare. Participants noted the lack of diversity in examples, a suggestion that ties in with earlier research by Van Merriënboer et al.16 who underscored the importance of using a varied set of examples to help learners recognize so-called generalities, and recurring principles, in the real world. By presenting learners with a variety of authentic examples that illustrate these generalities, they are equipped to transfer these generalities to their own context. Consequently, the use of similar cases in the workshop may have inhibited participants’ ability to recognize general principles in the real world.

Second, including participants of different nationalities and professions could strengthen the workshop. Participants applauded and initiated collaborative learning in the workshop. Having a variety of backgrounds, they felt they could learn from each other’s perspectives, even if their personal experience was limited. Consistent with studies by O’Keefe et al.22 and Robben et al.,23 the workshop supported interactions that clarified different perspectives, encouraging participants to learn from professionals from other disciplines. Since cross-border healthcare is an interprofessional endeavour, in which an interprofessional group of, for instance, administrators, nurses, paramedics and physicians collaboratively organize healthcare, a next step could be to provide the workshop in international and interprofessional groups. Learning with and from different professions and nationalities might help professionals to see more opportunities to enhance patient care with others. With such a diversified participant group, challenges similar to those of cross-border healthcare – such as differences in language, education and culture – should be considered.

Last, reflection on cross-border healthcare requires a certain amount of experience with it. Both quantitative and qualitative data showed that critical reflection was challenging for some participants. Previous studies have linked such difficulties with reflective learning to the extent to which learners see value in what they learn.24 As Sandars25 stated: ‘the experience must be interpreted and integrated into existing knowledge structures to become new or expanded knowledge. Reflection is crucial for this active process of learning’ (Sandars25 p. 686). It might be plausible to assume that dealing with the complexity of cross-border healthcare required a certain level of experience or proficiency that some trainees did not yet have. Nevertheless, regardless of their experience, trainees did appreciate the complexity of cross-border healthcare and how it required deliberation with other stakeholders.

This study has a number of strengths. First, insights from theory (i.e. literature on how to design education based on learning principles) were used to analyse, design and evaluate a workshop. The results not only offer suggestions for practice improvement, but also give impetus to reflection on theory. Second, the mixed-methods approach helped us to understand what aspects of learning about cross-border healthcare participants found most helpful and why. Lastly, many physicians in and out of border regions will come to deal with cross-border healthcare. This study has shown that they can be prepared for complexities that come with it.

The study also has limitations. First, the study had a relatively small sample size, especially for the quantitative part of this study. Second, the workshop was of short duration and was offered in a specific context (the Meuse-Rhine Euroregion) for a specific target group (trainees). Consequently, the learning principles might require a different application to the tasks or goals when used in different contexts or for different target groups. Lastly, as participants’ long-term learning was not monitored, it is unknown whether and how the workshop, or, better yet, a series of these workshops in which trainees discuss relevant cases, will help them to navigate cross-border healthcare.

The workshop designed and evaluated in this study is certainly not the solution to all challenges of cross-border healthcare. However, it should be part of a continuous professional development trajectory for regional healthcare providers. Assuming that good cross-border collaboration requires more practice than a short workshop can offer, future research on cross-border healthcare education should focus on the integration of such small initiatives into the bigger picture of a professional development trajectory. This would call for longitudinal research exploring how healthcare professionals learn to navigate regional healthcare networks, and how education could support this process. Additionally, further research is necessary to determine how adaptations to other contexts and target groups might affect the process and outcomes of the workshop.

The study emphasizes the need for attention to complex situations such as cross-border healthcare in postgraduate specialty training. A variety of authentic examples can help raise awareness of the challenges and opportunities, even if trainees have little experience with cross-border healthcare. As cross-border healthcare is a collaborative effort, it should be taught in a collaborative setting so that participants can learn from and with each other. Furthermore, this study highlights the merits of a thoughtful design and evaluation of workshops. Even when workshops address a very specific topic, broad theoretical insights into learning can and should inform their design and evaluation.
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Ethical considerations
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Supplemental material
Supplemental material for this article is available online.

References