Abstract

Introduction: International harmonisation of postgraduate medical education is gaining importance in the globalisation of medical education. Harmonisation is regarded as the establishment of common standards in education, while maintaining regional or local freedom to adapt training to contexts. During the development of a harmonised curriculum, tensions between standardisation and contextualisation may surface. To allow future harmonisation projects to recognise these tensions and deal with them in a timely manner, this study aims to gain insight into tensions that may arise when developing a harmonised curriculum for postgraduate medical education in Obstetrics and Gynaecology in Europe.

Methods: Focus groups were held with international curriculum developers to discuss challenges that resulted from tensions between standardisation and contextualisation when developing a harmonised European curriculum for postgraduate medical education in Obstetrics and Gynaecology. Data were analysed through conventional content analysis, using the principles of template analysis.

Results and Discussion: Tensions between standardisation and contextualisation in the development of a harmonised curriculum were apparent in two domains: 1) Varying ideas about what the harmonised curriculum means for the current curriculum and 2) Inconsistencies between educational principles and the reality of training. Additionally, we identified ways of dealing with these tensions, which were characterised as 'negotiating flexibility'. Tensions between standardisation and contextualisation surfaced in the development phase of harmonising a curriculum, partly because it was anticipated that there would be problems when implementing the curriculum.
Introduction

Globalisation of medical education has received growing attention.\textsuperscript{1-7} While globalisation efforts are being realised, concerns are raised about the feasibility of development and implementation of international standards in different contexts.\textsuperscript{2,5,6} International harmonisation of medical education is a form of globalisation, since a harmonised curriculum can be developed for implementation in different contexts, such as different countries.\textsuperscript{7} Several European medical specialty societies have started the process of international harmonisation of postgraduate medical education\textsuperscript{8-13} to improve the quality of education and care, and to enhance mobility of medical specialists throughout Europe.\textsuperscript{12,14,15} Patrício and Harden explain that in a harmonisation process common standards in education are established, while regional or local autonomy is maintained.\textsuperscript{16} However, this may be challenging at an international level, especially if multiple healthcare systems and different cultures are involved.\textsuperscript{1,17,18}

In medical education in general, balancing standardisation of education with allowances for contextual variation is increasingly a subject of debate.\textsuperscript{5,19} Bates et al. discussed how processes of standardisation and existing contextual diversity intersect in different areas of medical education and how this may cause tensions between the two.\textsuperscript{20} Potentially, these tensions may also arise when harmonising postgraduate medical education. This deserves exploration because, as we have stated, globalisation and harmonisation efforts are currently being undertaken, and challenges are encountered along the way.\textsuperscript{5,7,21} A better understanding of potential tensions in the process of harmonisation and how they are negotiated is necessary to understand and address potential challenges in the process.\textsuperscript{22}

Before we can build on this debate, the terms ‘standardisation’ and ‘contextualisation’ require further explanation. For the purpose of harmonising postgraduate medical education, standardisation of training refers to the use of common learning outcomes, strategies for training, and systems of assessment, for instance in an outcome-based curriculum.\textsuperscript{9,23} In postgraduate medical education, it is essential to align standards of training with contexts of training. The context of postgraduate medical education is the workplace, which is shaped by patient care but also by social relations, by organisation of healthcare and by clinical practice.\textsuperscript{24} The workplace offers continuous variation in learning opportunities for trainees.\textsuperscript{25} Workplace-based learning helps trainees to develop the required competencies for their profession through exposure and interaction in the workplace.\textsuperscript{19,25} Making optimal use of the workplace while aligning standards of training with workplace-based contexts is regarded as contextualisation of postgraduate medical education.

As suggested, tensions between standardisation and contextualisation may surface in medical education, especially when harmonising postgraduate medical education. An important phase in harmonising postgraduate medical education is curriculum development. Ideally, in this phase, curriculum developers recognise challenges and deal with them to ensure feasibility and effective implementation of the curriculum. Therefore, we aimed to explore if and how tensions between standardisation and contextualisation surface during the development of a harmonised curriculum in postgraduate medical education to better understand the process of harmonisation and the challenges that it may bring. We do not aim to find straightforward solutions, rather we are convinced that understanding the challenges in harmonisation may offer starting points for consideration to improve feasibility and sustainability of harmonisation of postgraduate medical education in the future. Thus, taking into account the increasing globalisation of medical education, this research is valuable for future projects and the evolvement of globalisation.
Recently, the European Board & College of Obstetrics and Gynaecology (EBCOG) took steps to harmonise postgraduate medical education in Obstetrics and Gynaecology (OBGYN) in Europe. We took this project as an opportunity to investigate how tensions between standardisation and contextualisation surface in the development of a harmonised curriculum to consider the feasibility of the European OBGYN curriculum before it is implemented.

The research questions were: 1) Do curriculum developers recognise and/or deal with tensions between standardisation and contextualisation in the development of a harmonised curriculum in postgraduate medical education, and if so 2) Where do such tensions surface?

Methods

We performed a conventional content analysis study with focus groups to gain an understanding of curriculum developers’ experiences of tensions between standardisation and contextualisation during the development of the European OBGYN curriculum. In focus groups with curriculum developers, we investigated their recognition of, and experience with, the tensions between standardisation and contextualisation that they encountered during the phase of curriculum development. We organised focus groups because they allow participants to build on each other’s perspectives through group interaction.

Participants and setting

As explained, the EBCOG has initiated the harmonisation of postgraduate medical education in OBGYN in Europe. Participants in this project were members of the EBCOG, members of the European Network of Trainees in Obstetrics and Gynaecology (ENTOG), representatives of subspecialty societies in OBGYN, educationalists and representatives of stakeholders of postgraduate medical education in OBGYN (i.e. patients, midwives, nurses, and hospital board members). In total, the group of curriculum developers consisted of 38 people.

All 38 curriculum developers were identified as potential participants for this study and were contacted by email. They received information about the study and an invitation to participate. To include as many of the curriculum developers as possible, the focus groups were scheduled during international project meetings. The first focus group consisted of the advisory committee of the project, representing EBCOG members and members of subspecialty societies in OBGYN. The second focus group consisted of ENTOG members, representing trainees in OBGYN from different European countries. Trainees were deliberately invited as a separate group to prevent hierarchical relations affecting group dynamics. The third focus group consisted of the project’s working group, including gynaecologists, trainees, educationalists and representatives of stakeholder groups. During each focus group session, two moderators facilitated the discussion (FS & JEA or AJG & JEA). All focus groups were held in English, which is the second language of most participants.

The focus group moderators encouraged participants to share any challenges they had experienced during curriculum development. A lot of room was offered for reflection and elaboration. The topic
guide of the focus groups was limited to the challenges experienced, although this was slightly structured by suggesting that challenges may be experienced at three levels (macro, meso and micro). The moderators made no direct references to the concept of tensions between standardisation and contextualisation, since this was considered too conceptual and too restrictive for collection of valuable data. The topic guide did not evolve throughout the study, although the discussions in the three focus groups were very divergent because of their free flowing nature.

Eventually, three focus groups were held, each with a duration of approximately one hour. In the first, second and third focus group there were seven, four and nine participants, respectively. The total of twenty participants represented twelve different European nationalities.

Data analysis

Data were collected between November 2017 and February 2018. The focus groups were audio recorded and transcribed verbatim. Audio recordings and transcripts were stored in a secured environment. After analysing the data, the recordings were destroyed. The main researcher (JEA) moderated all three focus groups and coded the transcripts with the help of MaxQDA2007. We performed conventional content analysis according to the steps of King’s template analysis to allow structured and hierarchal organisation of the coding.27 Through open coding, an initial codebook was developed by the main researcher (JEA). Coding concentrated on recognising specifically mentioned challenges or struggles as experienced by the curriculum developers in relation to the development of a curriculum that was intended to be suitable for many different training contexts. Subsequent template analysis resulted in identification of domains of tension.27 JEA discussed the domains with the three other researchers through an iterative process until consensus was reached about the nature and interpretation of the domains.

Ethical considerations and reflexivity

Participants were contacted in person and informed about the purpose of the study, the role of the participant in the study and the reason for selecting the participant. The voluntary nature of participation was stressed. The researchers ensured that participants were aware that if they decided to withdraw from participation after the focus groups had taken place, their input could not be eliminated from analysis. Also, the researchers stressed the confidential nature of the information that was shared within the focus groups. Consent for participation in the study was obtained orally and in writing and there was an opportunity for questions from participants and further explanation by the researchers. There were no personal advantages nor possible risks in participating in this study. The study was approved by the Ethical Review Board of the Netherlands Association for Medical Education in 2016 (NVMO-ERB file number 795). Only the main researcher (JEA) had access to the original data, and all research material was coded to guarantee anonymity.

Three of the researchers (JEA, FS, AJG) were also involved in developing the European OBGYN curriculum. Although they did not participate in the focus groups but moderated them, the study may have been influenced by their positions, beliefs and values regarding harmonisation of postgraduate medical education in OBGYN. For instance, the main researcher (JA) initially believed that harmonising postgraduate medical education would improve the quality of training in all European countries. However, her involvement in exploring the process as a researcher resulted in new insights that have
considerably changed her initial stance. The majority of the participants also shared a positive perspective on harmonisation, which was underlined by their involvement in the development of the European OBGYN curriculum. Variation in their geographical and professional backgrounds ensured that the issues under study were addressed from different contexts.

Results

Analysis of the data revealed that the developers of the European OBGYN curriculum recognised tensions between standardisation and contextualisation during the development of the harmonised curriculum. We identified two domains in which these tensions were apparent. Additionally, we identified ways to deal with the tensions that emerged from our data. Whenever we refer to the ‘harmonised curriculum’, we mean the European OBGYN curriculum that was developed for the purpose of harmonisation of postgraduate medical education in OBGYN in Europe. Whenever we refer to the ‘current curriculum’ we mean the OBGYN curriculum of a country or region with which the participants were familiar.

Domain 1: Varying ideas about what the harmonised curriculum means for the current curriculum

Throughout the process of curriculum development, the harmonised curriculum gradually began to take shape. In this process, the participants automatically compared the harmonised curriculum with their current curriculum. Participants increasingly empathised with the way people from their country or region might ‘feel’ about the harmonised curriculum, which was based on participants’ understanding of the current curriculum. This ‘feeling’ was identified as a general feeling about the entire harmonised curriculum, rather than about specific elements of the harmonised curriculum. This gave participants an idea of how their current curriculum should change, in order for it to comply with the harmonised curriculum. While participants discussed these ideas with each other, they discovered that there were differences between countries. To illustrate this, we provide three examples of different ideas about the harmonised curriculum and we explain which strategies for change are implied in these ideas.

For instance, one participant thought that her colleagues would mainly compare their current curriculum with the harmonised curriculum to confirm the quality of their current curriculum. In her view, medical educators in her country only need confirmation that their curriculum is already of high quality and therefore do not need the harmonised curriculum to show how to improve their current training. This was supported by the following quote:

‘I think in [country] there will not be a huge change and they won’t be open for a huge change because they have an elaborate curriculum and they will stay with it. Because there is a lot of work behind [the current curriculum] and it is established.’

Another participant explained that she felt that her country considered the harmonised curriculum to be a benchmark to show which elements of the current curriculum could be improved. Therefore, her idea for evolution of their current curriculum was that selected elements of training might be
improved, for which the harmonised curriculum would be a good reference. For yet another country, a participant explained that she felt that the harmonised curriculum is so far from her country’s current curriculum that her idea of change towards the current curriculum is thorough reform and extensive improvement.

These three examples reveal that tension is experienced between standardisation and contextualisation, since participants collectively struggled with the realisation that there were different ideas about what the harmonised curriculum means for the current curriculum.

Domain 2: Inconsistencies between educational principles and the reality of training

Throughout curriculum development, specific educational principles were selected as the foundation for the harmonised curriculum. Examples of educational principles that the harmonised curriculum relies on are an outcome-based curriculum, a soft-skills framework, a focus on simulation and teamwork training and assessment through entrustment to ensure gradual independence.

Participants explained that in their experience, some principles might not be consistent with the reality of training in their constituent workplaces and some principles might even have an adverse effect if they were implemented in specific countries. For instance, participants described that one of the educational principles of the harmonised curriculum is that a trainee should gradually gain independence in practice, and that this should be officially documented in a portfolio using entrustment decisions. One trainee feared that by formalising this process of gaining gradual independence, some supervisors might be more hesitant to leave trainees to practice independently, rather than to stimulate it, because of the formal process:

‘If the professor or specialist see I can do it, he will leave me do it. But if he has to sign I’m confident to do it, then maybe he will start making problems about it. Because he will put the signature there and then feels responsible for it. So it takes longer to reach the competences that already have [the competences] informal.’

This type of tension between standardisation and contextualisation was recognised in more cases. As a second example, two participants pointed out that the harmonised curriculum describes a broad standard of general competencies in the curriculum content, while at the same time the current workforce of gynaecologists in Europe seems to be differentiating and subspecialising more and more. According to the participants, this tendency to subspecialise would lead to a workplace that offers mainly learning opportunities that are more subspecialty-specific, which may compete with learning opportunities for the development of more general competencies. This view was supported by the following quote:

‘Staff members, (...) they are subspecialised more and more nowadays to teach their trainees, again, about advanced things in perinatal medicine or reproductive medicine, urogynaecology. And obviously that’s going to be rectified now in this new curriculum. But it needs again a change of perception and that may in itself be, also be a challenge to change that.’

Negotiating flexibility

In addition to the two domains of tensions, we identified in our data that participants already tried to deal with the tensions in the curriculum development phase. Participants’ understanding of the
existence of tensions seemed to initiate considerations of how to deal with them. Participants suggested that curriculum developers should engage in conversations with national postgraduate medical education bodies as well as local sites to explore the different needs of the different contexts. One participant explained:

‘But still we do visits in many, many countries in Europe. And that also may contribute to getting more information as to how new curriculums will be received and how they think they will able to fit it into let’s say a local organisation.’

Participants experienced that consideration of differences subsequently led to their understanding that flexibility of the harmonised curriculum is needed to allow the standards to align with different contexts. Therefore, the harmonised curriculum should be developed further, based on more understanding of specific needs for flexibility. Participants described the harmonised curriculum as a ‘document in progress’ for which flexibility should be negotiated. This is supported by the following quotes:

‘I think that’s important to talk about to each other and discuss about it. Are we doing it as we thought we are doing it? And within the tailoring process there might be a stepwise change of course.’

For instance, one of the participants remarked that a ‘pick-and-choose’ strategy for specific elements of the harmonised curriculum may undermine the desired effects of quality improvement of postgraduate medical education throughout Europe. This is a consideration of flexibility that requires negotiation.

‘And then the other thing is if, for example, a country says, we can’t actually deliver that part of the curriculum, does that matter?’

Overall, participants agreed that the harmonised curriculum should be regarded as a strong recommendation for OBGYN training, while it should still allow for flexibility to align it with different contexts. This shows that the curriculum developers experienced tensions between standardisation and contextualisation when developing the harmonised curriculum, but also searched for ways to deal with them, and felt that negotiating flexibility of recommendations deals with these tensions. The following quote stresses how participants perceived implementation and further development of the harmonised curriculum.

‘If you also accept that things take time. And maybe it will take five to ten years to reach [it]. And everyone will have their own from now on until ten years. And you have to accept that. The squares getting rounder and rounder you know? You have to accept that, because change, management of change is really hard.’

**Discussion**

The aim of this study was to gain insight into tensions that may arise in the development of a harmonised curriculum for postgraduate medical education in Europe. Our findings show that curriculum developers recognised tensions between standardisation and contextualisation when developing a harmonised curriculum. Tensions surfaced due to varying ideas about what the
harmonised curriculum means for the current curriculum, and due to inconsistencies between educational principles and the reality of training. Also, curriculum developers shared how these tensions may be dealt with.

Reflecting further on the first domain in which tensions surfaced, we identified a challenge that requires some further exploration. The objective of the development of the harmonised curriculum is to improve training throughout Europe, although the tensions in the first domain show that different countries have different ideas about what the harmonised curriculum means for the current curriculum. This raises the question whether the intention to improve training across Europe can be fulfilled through harmonisation at all. We wonder whether harmonisation could unintentionally lead to an increase of inequality in postgraduate medical education if some countries evolve towards the harmonised curriculum easily, whereas other countries need more time and effort to change. The countries that need to invest more time and effort to adopt the harmonised curriculum need to initiate their development while being aware of the size of the effort. This awareness may affect a country’s perception of harmonisation in a negative way and potentially lead to undermining its efforts even further. For countries that do not need to invest so much time and effort to change towards the harmonised curriculum, harmonisation may seem a more achievable aim. In a harmonisation process it is important to be aware of these different effects on countries. Negotiating room for flexibility within a harmonised curriculum allows for better alignment of the harmonised curriculum to different contexts and makes adaptation of current curricula more feasible.

This study originated from discussions around tensions between standardisation and contextualisation in medical education in general. In their paper, Bates et al. recommended to embrace both standardisation and contextualisation as valuable concepts, accepting the tensions they cause, and we should aim to deliver medical education that is both globally responsible and locally engaged. Relating our research to this literature, we believe that our findings resonate with Bates’ statement on embracing both concepts. Our study shows that recognising tensions is part of the process of harmonisation. The need for negotiating room for flexibility of the standards, without necessarily eliminating tensions, to fit different contexts, has become evident.

Literature regarding change processes in postgraduate medical education curricula describes how expectations of a novel curriculum are not always met during implementation in the context. What we have learned in our study is that with regard to the harmonisation of postgraduate medical education, tensions between standardisation and contextualisation can be recognised in the curriculum development phase, thus already prior to implementation. However, in reforming medical education curricula the phases of curriculum development and implementation are not linear. Often the two phases are intertwined and interact with one another. Curriculum developers in this study anticipated potential implementation challenges and this influenced the curriculum development. There is, however, a risk with this approach, since some of the early anticipated problems may seem less necessary to be resolved at a later stage. It is uncertain to what extent curriculum developers should anticipate potential challenges for implementation. This requires careful consideration.

The findings of this study may benefit the harmonisation of postgraduate medical education in the future. We propose a strategy to allow flexibility of a harmonised curriculum. That is, to consider if a harmonised curriculum could be developed at two levels. For instance, a harmonised curriculum can describe educational outcomes and strategies for all the countries involved. In addition, all countries may describe how they intend to interpret and ensure implementation of the harmonised curriculum.
in the context of training. For a harmonised curriculum to serve different contexts, local interpretation may be necessary. This two-level approach of curriculum development may answer the need for local flexibility, while still allowing for harmonisation of postgraduate medical education.

**Strengths, limitations and future research**

The strength of this study is that it provides a novel insight into tensions between standardisation and contextualisation in the development of a harmonised curriculum for postgraduate medical education in Europe. As explained, three of the researchers as well as most participants in this research share a positive conception around harmonisation. This may have affected the outcomes of the study. Future research could be aimed at further exploring more deeply seated tensions, by including participants with potentially more diverging conceptions around harmonisation.

The findings of this study open up possibilities for further research. More empirical evidence is required on the value of the suggested negotiation of flexibility through a two-level approach of curriculum development. Dealing with tensions between standardisation and contextualisation when harmonising postgraduate medical education is an investment whose benefits are not clear yet. As previously described, harmonisation of postgraduate medical education aims to enhance the international exchange of best practices in healthcare as well as the mobility of medical specialists. Further qualitative research is needed to provide insight into whether these aims are met and under which conditions.

**Conclusions**

Curriculum developers recognise tensions between standardisation and contextualisation in the development of a harmonised curriculum. Tensions may surface due to varying ideas about what the harmonised curriculum means for the current curriculum, and due to inconsistencies between educational principles and the reality of training. Negotiating room for flexibility in anticipation of national implementation challenges seems to be the main strategy to deal with perceived tensions in the harmonisation of postgraduate medical education.

**References**