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Unraveling the complexities of enacting change in undergraduate medical curricula

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CHAPTER 5

Contextual elements impacting the adoption of transnational curriculum innovation projects

Abstract

Introduction
To foster economic growth, employment, equal opportunities, and inclusion within Europe, the European Union actively supports transnational curriculum development. Since one of the challenges of the implementation of transnational educational programs pertains to the variety of contexts in which the program will be adopted, this study aims to dive deeper into the contextual elements impacting the adoption of newly developed learning modules, in health professions curricula in different countries.

Method
In June 2018 the first and last author held individual, face-to-face interviews with project leaders of IMPACCT, a transnational innovation project within Europe that develops a health literacy program for medical and nursing students. Additionally, 5 to 7 stakeholders at three participating sites - Germany, Slovakia and Italy - were interviewed. We conducted a template analysis, a form of thematic analysis, in which researchers develop a coding template based on themes and topics that are found in the data.

Results
In the contextual elements the participants defined, we observed two overarching themes in which differences appeared between the included institutions: the drivers of change and the processes of change. The drivers of change contained the different institutional perceptions about the topic the project addresses, variances in current related courses that are already in place in the different schools, particular attitudes towards health illiterate patients, and varying motives for participation. The processes of change had to do with the project leaders' different institutional positions, the various implicit and explicit rules of governance, timing and availability of resources.

Discussion
This study shows that each context has different needs and asks for different approaches to make the adoption of learning modules happen. Stakeholders involved in the development and implementation of transnational curricula change projects should take the contextual factors into account when implementing learning modules in different contexts.

Introduction

To build a knowledge economy,[1] and foster economic growth, employment, equal opportunities and inclusion within Europe, and therefore greater competitiveness, the European Union actively supports transnational curriculum development projects in various domains,[2] among which are the health professions. These collaborative projects aim to foster the development, transfer and implementation of innovative education.[3] These projects fit into the overall aim of the EU to improve and harmonize European education.[1] Knowing that the enactment of educational change in medical schools' undergraduate curricula is a complex process,[4,5] one could imagine the challenges of these transnational, collaborative curriculum innovation processes. Local single case,[5] and multiple national case studies[4] have shown the challenges of undergraduate curriculum change efforts, and also emphasized the importance of the context in which curriculum changes are implemented.[5,6] However, as Whitehead states, so far, the recognition of context relevance did not result in many studies specifically addressing the influence of context in curriculum changes in medical education.[6] *"More explicit and deliberate study of specific contexts of medical education will help our community better attend to the sociocultural, political, historical, and economic factors in which these various curricular reforms are implemented."*[6 (p.284)] Since one of the challenges of the implementation of transnational educational programs will be the variety of contexts in which the program needs to be adopted, this study aims to dive deeper into the role of context by exploring three participating project sites in an EU-funded transnational curriculum innovation project.

Scholars in the field of medical education highlight the lack of attention that is usually paid to the role of context in medical educational practice and research.[7,8] Context is described to be an elusive concept, a phenomena that is difficult to grasp, understand and investigate.[8] Defining and understanding context is a challenge partly because the singularities that are responsible for its uniqueness become invisible for its participants through a process of acclimatization.[7] Nevertheless, context influences the design, implementation, and outcomes of research and curriculum innovations.[9] As described by Ellaway et al., each institutional context could be perceived as a complex educational ecology that could not be considered to be stable, therefore shaping both research and innovation outcomes.[9] For implementation research, and therefore adopted by us as a working definition in this study, *"context is the set of circumstances or unique factors that surround a particular implementation effort"*.[10]

The implementation of new educational materials in different countries is a phenomena that is related to the globalization of education. Therefore, one cannot escape the inevitable tensions between creating uniform education and adaption towards different contexts.[7,11,12] *"Standards exist to determine goals, shape operations and the measurement of them. Standards once dealt only with*

the material world but they are present now in most forms of human process and performance," of which education is one.[1 (p261)] However, the diversity of educational contexts asks for adaptations to ensure alignment with local needs and goals.[7] Former studies on curriculum change processes have shown that, whether it is about a new educational approach,[13] or an entire new program,[14] the adaption to the local context is vital to make the curriculum changes into a success.[10,13,14] Implementing educational materials from one place into another is not simply a matter of copy-paste.[14,15] Finding the right balance between 'being globally responsible and locally engaged',[7] is a long-lasting, essential discussion as globalization tends to be ever more present in health care practices and its related education.[11,12]

Previous studies considering the role of context focused predominantly on clinical contexts,[8,16] or studied the implementation of existing health professions curricula that were developed in one setting and entirely transferred to another.[14] However, the implementation of collaboratively developed educational modules by different undergraduate courses in different countries was not studied yet. As globalization moves on, we anticipate that these innovation and harmonization projects will become more and more common. To advance our knowledge of transnational curriculum innovation projects we explored the pre-implementation phase, the adoption phase,[17] of a European innovation project. In the adoption phase *"people initially acquire and process information about the innovation and make their decision about using the innovation."*[17 (p.1)] We turned to the stakeholders involved in this innovation project, exploring the question: What are the contextual aspects impacting the adoption of newly developed learning modules, in health professions curricula in different countries?

Method

Background of the project

We used the IMPACCT project as study object. IMPACCT stands for *"IMproving PAtient-centered Communication Competencies: To build professional capacity concerning health literacy in medical and nursing education"*.[18] The project is funded by the European Union, via the ERASMUS+ Program focusing on strategic partnerships in higher education.[18] Health Literacy is the ability of patients to understand the information they receive from healthcare professionals, to read and comprehend drug prescriptions, but also the ability to navigate health services, and manage one's own health conditions.[18-20] Low health literacy is most prominent among vulnerable groups in society, such as migrants and refugees, those in financially deprived situations, low socio-economic status, low education, and older adults, and has serious negative health consequences.[19,20] With an ageing population in Europe, and other vulnerable groups such as non-native language speaking migrants, the problem of low health literacy becomes ever

more important to deal with. However, there is a lack of education on this topic in most health professions curricula. Therefore, IMPACCT aims to strengthen health literacy competencies of future health care professionals, by improving the education of medical and nursing students in Europe with an evidence-informed program on health literacy.[18] The IMPACCT project group exists of seven partner organizations, including universities, a regional governmental health office and an EU-association for higher education, from different countries (Ireland, Italy, Slovakia, Germany, Belgium and the Netherlands). Together, these partners create the learning modules that are meant to be implemented in the participating countries' undergraduate health professions curricula (e.g. nursing, physiotherapy and medical education), and ultimately could be widely disseminated over Europe and beyond.

Design

To better understand the contextual elements impacting the adoption of these newly developed learning modules in each particular context, we held interviews at three participating sites: Germany, Slovakia and Italy. The Netherlands was eliminated as we considered it hard to question our own context, and the team in Belgium was not related to a university and was therefore not able to participate. We discussed with the remaining four partners who were interested to participate in our study, and the partners from Germany, Italy, Ireland and Slovakia responded positively. Ireland served as a pilot location for the further development of the interview guide.

This study was conducted from a constructivist paradigm, assuming that multiple perspectives on reality in social processes exist, and that our knowledge is shaped in interaction with others and the environment.[21] Interviews are therefore seen as co-constructions between researchers and participants.[21] When analyzing the data, our team further co-constructed the interpretations, making our own backgrounds an important factor that inherently shaped our results. FV studied social psychology and explores in her PhD trajectory the complexities of enacting change in undergraduate medical curricula. MC is an internal medicine physician and medical educator from Brazil. AdW is a senior researcher in health literacy and communication, and head of the IMPACCT project. EH is an elderly care physician and senior researcher in medical education. Finally, AJ is a professor in health professions education, and is therefore also frequently involved in curriculum change processes.

Context and participants

In each country we held individual, face-to-face interviews with the project leaders and 5 to 7 stakeholders with whom the project leaders were collaborating to make implementation of the learning modules happen. The three included coun-

tries differed in the types of participating institutes. In one country, the project leaders were situated in a health psychology department within a medical school that offered various health professions courses. In another country, the project leaders were situated in a regional healthcare governance institute. They sought connection with the local medical school that offered various health professions courses. Finally, in one country the project leaders were situated in a health psychology department within a university that did not have a medical school. Therefore, they sought connections with other medical schools.

We asked the project leaders to select and invite the stakeholders. In total, we held 25 interviews: seven in Germany, ten in Slovakia, and eight in Italy. The gender distribution was nine men and sixteen women. The invited stakeholders had various backgrounds, mostly in health professions education, such as medicine, nursing, speech therapy, physiotherapy, and (health) psychology. They worked as healthcare professionals and/or researchers, teachers, course coordinators, vice Deans for medical education, board members of a hospital or university, and in some cases outside academia in managerial positions of regional or government-related health offices.

Ethical consideration

In this study, the standards of the Declaration of Helsinki were maintained. Participants received an information letter describing the background and goals of the study, possible risks and benefits of participating, and how we assured the confidentiality of their data. We explained that participating was voluntary, that participants could withdraw at any time in the study, and that the data would be used for publication in an international journal. All participants agreed to participate in the study after reading the letter and signed the informed consent. The audio-files and transcripts were saved and stored anonymously using a code name, and transcripts were carefully anonymized by FV, before analysis.

Data collection

FV developed the interview guide in consultation with the research team, and was informed by literature addressing cultural and other contextual aspects of curriculum change processes and cultural studies in organizations in general (for example Braun and Kramer).[22] To refine the interview guide, two pilot interviews were conducted with IMPACCT project leaders from Ireland. In June 2018, FV first conducted the interviews in Germany, and subsequently, FV and AJ conducted the interviews in Slovakia and Italy. At all sites, the interviewer(s) stayed for a couple of days with the project leaders to experience the local educational contexts. To ensure alignment, FV provided AJ the instructions for the interviews, and the first interviews in Slovakia were conducted together, and evaluated afterwards.

We started the interviews by repeating the aims of the study, and signing the informed consent. Hereafter we asked about participants' backgrounds and relation to the IMPACCT project, their personal views and opinions about health literacy (HL), the perceived needs for HL in the educational programs and the opinions of others in their institutes related to this subject. Then, we dived deeper into the contextual and cultural elements by exploring the hypothetical question what would be the do's and don'ts for us if we, as outsiders, would come to their institute to implement HL modules. Follow-up questions explored the hierarchical, power and governance structures in their institute, the important stakeholders to collaborate with, and how their organizations support change initiatives like IMPACCT. Follow-up questions were all the time related to better understanding what the answers told us about the culture or context, whether the described views and perspectives were typical for this institute or even this particular country, where these views were based on, and how these views and perspectives affected the adoption of the learning modules. The interviews were wrapped-up by asking the participant to summarize the main barriers and facilitators for the adoption of the HL modules in their institute. Interviews lasted between 1-1.5 hours, and were audio-recorded. All conversations were conducted in English, and in some cases, interpreters were used to facilitate those participants who did not feel comfortable enough to express themselves in English. All interviews were transcribed verbatim.

Data analysis

We conducted a template analysis, a form of thematic analysis, in which researchers develop a coding template based on themes and topics that are found in the data and their own preexisting knowledge.[23] The template is shaped and revised while analyzing new interview transcripts, finally resulting in one template containing all the information that is considered relevant to answer the research question.[23] In line with Brooks et al,[23] FV, the main researcher, carried out a preliminary coding of three interviews of one country, leading to a preliminary template, and proceeded with analyzing more interviews that informed the developing coding template. In between, frequent team meetings further shaped the template. After coding half of the interviews, EH and AJ added their perspectives by reading both three different transcripts and comparing those with the themes and topics in the template. FV further analyzed the remaining interviews and refined the template. To avoid an exclusively feminine and Dutch perspective, MC joined the team. He read two transcripts of each country, and joined the team meetings. By having frequent discussions with the research team about the data analysis we reached consensus on the final interpretations. At a later stage, AdW carefully read the results and substantially contributed to the refinement of the entire manuscript.

Results

In the contextual elements that impacted the adoption of learning modules we observed two main overarching themes, which we called 'the drivers for change' and 'processes of change'. Within these themes, we clustered the sub-themes that were most apparent. For the driver for change the sub-themes were the perceptions about the topic the project addresses, current related courses that are already in place in the different schools, particular attitudes towards health illiterate patients, and varying motives for participation. For the processes of change the sub-themes were the institutional positions of the project leaders, the various implicit and explicit rules of governance, timing and availability of resources. To ensure anonymity, we report on a general level about the contextual aspects, thereby not specifically referencing to the participating countries or institutions.

Drivers for change

Perceptions about the importance of the topic of the learning modules

In general, almost all participants saw a need for the learning modules that address knowledge and skills on how to deal with health illiterate patients. However, participants explained that these needs were not always similarly perceived by others in the organization. For example, some participants explained that the dominant opinion of teachers and physicians in their medical school is that clinical subjects and cognitive skills are more important than social skills such as communication. Contrary, participants in another institute emphasized that social skills are generally highly valued by their faculty. This was explained to be due to the university's long humanistic tradition in health professions curricula, something that was also reflected in a university magazine in which faculty wrote about human care and humanistic perspectives such as psychology, ethnography, and anthropology.

> *"I think that many old school teachers at [this university] have had a large humanistic background in literature, music, the arts, and when it comes to narrative medicine, or narrative nursing, it is always an enrichment in addition to the scientific parts. (…) Within the [nursing] courses there are workshops (…) on the relationship with the patient, on communication, and on health promotion." (participant institute A)*

Furthermore, some participants expressed that physicians in their institutes consider health literacy to be more important for nurses than physicians, as nurses were explained to have more contact and time to spend with patients. Although participants emphasized a serious need for improving the communication of health professionals, especially physicians, and therefore the need to adapt their

training programs, they reported a lack of interest and perceived need by doctors in their society, as well as higher management. These differences in interest and perceived needs also seemed to be reflected in the willingness and openness of teachers and others involved in the existing curricula towards adopting the learning modules.

Current related courses in schools

In relation to the different perceptions about the importance of the topic, we also observed differences in the availability of communication and other social skills courses that were already provided by the participating institutes. This (un) availability of courses resulted in variances in the degree of change that had to take place in the institutes, and the possibilities and willingness to adopt the new learning modules. For example, in one country, the nursing curriculum included some communication related courses in which possibilities were explored for the health literacy modules. However, communication courses or other social skills and subjects like health psychology, were not addressed in the core parts of the medical curriculum. Communication was only offered as a general, intra-university voluntary course in English, that was open for all students, therefore primarily reaching foreign students, and not particularly addressing doctor-patient communication. Getting a topic like communication for medical students on the university's agenda was already a struggle, making it even more challenging to get this very specific health literacy topic to the attention of doctors, teachers and decision makers. A strategy seemed to be developing optional (elective) courses for students in which the learning modules could be implemented.

> *"It's not ideal, but it's something. We start a non-compulsory program, then we will move one step forward and then maybe, hopefully, some compulsory [program]." (participant institute C)*

In another country, the main partner university did not offer health professions curricula itself and was therefore relying on courses from other schools to make a broader implementation of the learning modules happen. In general, the invited stakeholders emphasized their interest in the topic and shared several ideas about where to incorporate the learning modules in various health related programs. Concerning the medical curricula, one participant explained that communication skills training was already well-established in their core curriculum, creating a good opportunity for the adoption of the learning modules. However, in this case, the problem was experienced that students were complaining about the overload of emphasis on social skills, and therefore their lack of motivation for communication training:

> *"It is some kind of exhaustion in the students about the topic of communication. They are tired of training in communication. One female student told me, "we are receiving more training in communication than in surgery." (…) So, this, I have to talk about with the boss of our program." (participant institute B)*

In the country with the long humanistic tradition, the communication and other social skills courses were described to be a well-established part in nursing and paramedical studies. This type of courses was less represented in the medical curriculum. In this institute we observed a true enthusiasm of teachers to start working with the learning modules, preferably sooner than later. Compared to the other institutes, the interviews in this institute were already more about the practical implications on how to organize the implementation, how to teach the teachers, and the availability of program materials:

> *"I'm ready to start if you give me your material and your support." (participant institute A)*

Attitudes towards health illiterate patients

Another aspect was the way participants talked about the varying opinions about health literacy and related patients within their institutes as well as society in general; these opinions held imaginable consequences for the interest and 'marketability' of the learning modules. For example, in one country the group that suffered mostly from health illiteracy was an ethnical minority group. As perceived by various participants, this group is, in general, disrespected in society:

> *"There is like, generally in [Country], if you speak about racism, people say they are not racists. So this is something what we kind of find also in the healthcare to be racist towards [these] people, it's fine and it's not even perceived as racism. So it's a kind of normal thing. It's normal to put [these particular] women in separate rooms. It's normal to shout at them. It's normal to not to deal with them like with other patients. No equality. When they explained the reasons for this, it's kind of racism which they can justify." (participant institute C)*

Similarly, in another country, in which the money-making focus of healthcare was frequently emphasized by participants, someone explained that patients with health illiteracy are usually not the most favorite patients, as they usually cost more than they yield. Both perspectives point to the (potential) difficulty of bringing this very specific topic into peoples' interest if the main target groups are not respected or particularly valued. The challenges here are to motivate others

to invest in a problem that addresses an unfavorable patient group, making the learning modules a product that is difficult to sell.

Motives for participation

As mentioned, all participants shared the importance of addressing health literacy in health professions curricula, however, the drivers or motivation for collaborating with the project group members were different. It could be to improve patient care, but also seizing the opportunities to implement curricular reform or opportunities to do research, and even moral obligations. The motivation to participate was not only content-driven, but also strategic, which made reaching the commitment sometimes challenging. For example, according to some, for higher management the reasons to be part of this program were somewhat different, such as leaders seizing this opportunity to show others that they are involved in EU projects, which brings institutional rewards regarding the university's rankings and attracting international students. Although participants did not bother this 'advantage taking' per se, their main concerns were related to a lack of support and investment from those in higher management positions, as explained by one:

> *"If they [higher management] report their successes, we are there. But if it requires some additional activities from them, they are not so happy. Now we are creating problems. They are happy that we got this project, but they don't want to be very involved in those duties that it brings. (…) Yes, this is [our countries] way of… don't making things for themselves too complicated. All things are done pro forma. For example, if the European Union wants some changes in the education system it mostly changes pro forma, but the content is still the same." (participant institute C)*

Processes of change

Positions of the project group members

The positions of the project group members in their local context were of importance for the adoption process. The power or influence of the project group members varied, and the steps needed to bring about change were different. One group explained their own position to be weak which made it hard to get things changed or done in the medical curriculum:

> *"Usually psychologists have very, very little power in the medical faculty, because we are not medical doctors. (…) So we are considered like, a bit like less valuable beings. (…) Nobody is expecting anything else from our department, like they don't expect us to teach, to change their old*

ways, to change the curriculum. Our duty is just to do research and publish and improve the [department's] rating." (participant institute C)

For these participants, relationships with important others were expressed to be vital to compensate for their experienced weak position. Getting things done was explained to be highly depending on personal connections, particularly with people in influential positions like department heads and other leaders in the university/hospital. The dependence on personal connections was experienced to be frustrating by participants in weaker positions and without good connections. Some explained this importance of connections dated back from a particular part in history when strong networks were considered highly important. This was claimed to be still vibrant in the current generation of those in leadership positions:

"So sometimes we are joking they [people in leading positions] have to die to change something. And that's true, we also discussed this today. But yes, this is a problem." (participant institute C)

In another institute, as mentioned before, they did not offer medical or nursing programs themselves, which meant that the project leaders had to look for collaborations with other universities. This need for collaboration was explained to be challenging as it made them very depending on connections, interest and willingness of others, *outside* their own institute to make implementation happen. Having a broad network was therefore important for the project leaders.

The importance of knowing the implicit and explicit rules

For those implementing the change it seemed crucial to understand the implicit and explicit rules of governance. Not only between, but also within the countries, different institutes had different rules to follow to make changes happen. As one participant explained, knowing and understanding the local context is very important for such transnational projects:

"So I think you will need more time to learn about our culture, faculty and university, and the most important point would be to come to our university to watch, to speak with colleagues that you get an idea what I spoke about. Just to hear in this interview is not enough to decide what's the right way to bring this idea to [our university]." (participant institute B)

This 'right way' was related to different formal and informal routes to follow. These different routes had to do with the experienced hierarchies and distribution

of power in the institutes. For example, many participants described both universities and hospitals to have strong hierarchies, in which heads of department and board members make the final decisions, however, some also emphasized that the formal power differs from the actual, informal, power structures. Being aware of that is really important for those initiating the change, to know where to start and find the right ways to get things done. Some interviewees strongly recommended following the formal routes first, as explained:

> *"It's something [country] style. It's always you have to firstly inform the chief of every kind of services or- and then he is responsible for this problem and then he could delegate other people that are in the organization. That's the rule in [country]. It could be a big problem [if you don't do that] because they could stop the project because if you start speaking- really, we start [here], yes. (…) Obviously in a little region like this we have lots of informal linkage to people. So, we spoke with some person in university and they were very, very interested but the first thing they asked was have you informed the dean?" (participant institute A)*

In contrast, others emphasized the need to first follow the informal routes to get personal connections on board, building a lobby, and subsequently following the formal procedures, such as consulting faculty councils. Knowing these internal procedures seemed vital:

> *"But I did not speak to leadership and I will not do that at all. (…) It's always important to first talk to the colleagues and not just start from talking to leadership or management, including the deans, for example. So sometimes it's really important to get the deans into the boat too, but in general it's much more faculty driven. (...) I think sometimes it's different with institutions here in [our country] like the colleges, which do the nursing studies nowadays. There it's just imperative to have the consent from leadership. (…) They would probably not be able to decide anything because it's always leadership driven." (participant institute B)*

In one country we observed a strong emphasis on the need for clarity about terms and conditions before collaborations could be established:

> *"So we have a lot of possibilities to use [the learning modules], but we have to know exactly the circumstances and conditions to use it. (…) If there are open [unanswered] questions, we will get a lot of problems*

and everybody would say 'no, that's not for us'. So probably we would need a cooperation agreement to decide whether we would do it really for the next years." (participant institute B)

Timing

Also the timing of the learning modules played a role in the adoption and willingness of people to cooperate. For example, in one institute the upcoming accreditation procedures were perceived to be supporting the likelihood that people wanted to be involved, as this period of time created space to make adjustments to the program. Contrary, in another institute, the accreditation was a reason to be a bit more hesitant under the guise of 'never change a winning team', in this case a successful, and worldwide acknowledged, nursing curriculum. Also national developments, such as a growing dissatisfaction with current healthcare delivery (e.g. the way doctors treat patients), were mentioned to be of help to get this project on the agenda of decision makers. Investing in better communication of doctors was explained to be a solution to the current lack of trust and satisfaction in this country.

Resources

A struggle with resources, e.g. time, money, qualified people and support of higher management, and the battle to find space in often overloaded curricula - was a challenge in most institutes and impacted the adoption of the learning modules. In one country, participants repeatedly mentioned the importance of economic arguments, both in (private) universities and healthcare institutes, to convince upper management to invest in this project. For example, one explained that clerks who spend additional time on communication courses cannot spend that time with patients, and that is not attractive for the hospital. Therefore higher management should be convinced by economic arguments:

"You have to address the logic of the economic leaders in the hospitals. They will not change their culture just because they want to be good human beings, you have to address hard economic facts. (…) Perhaps it's a bit astonishing, but I would talk to the one who's responsible for public communication, for marketing. They know that the competition among patients and income of the hospital can be won via medical excellence and via contact and good treatment of patients. So having good communication skills in the hospital is a good message they can use for their own marketing." (participant institute B)

In another country, a lack of time was considered more important than money:

> *"The [country's] system of teaching doctors in the hospital are public employees and so they are used to do a lot of things without direct money or compensation. So that is not a real problem, no. The general hospital doesn't have this problem, but the problem with time, yes. Because everything needs more time, because they are overwhelmed by everything: patients, wards, examinations, requiring administrative things, they feel very heavy in sense of time, so IMPACCT could be a great barrier." (participant institute A)*

Participants also faced the challenge that those projects always come 'in addition', therefore taking additional time of teachers in the already limited time available. The lack of time of teachers also seemed to be related to the lack of time in the curriculum. This was reflected in the struggle that new, additional subjects like health literacy have to replace other subjects that, as a result, have to go out of the curriculum. In some institutes, using the elective courses seemed to be a solution to avoid curriculum overload.

Discussion

This empirical study - conducted across three different countries in Europe – has identified a set of contextual aspects that might influence transnational curriculum adoption processes. We observed two overarching themes in which differences appeared between the participating institutions: the drivers of change and the processes of change. The drivers of change contained the different institutional perceptions about the topic the project addresses, variances in current related courses that are already in place in the different schools, particular attitudes towards health illiterate patients, and varying motives for participation. The processes of change had to do with the project leaders' different institutional positions, the various implicit and explicit rules of governance, timing and availability of resources. Our results resonate with the observation of Ellaway et al. that each institutional context forms a complex educational ecology, in which various elements interact.[9]

The meaning of the main research findings

Important drivers of change are the different opinions towards the subject – health literacy - of this project, and that seemed to have impact on the adoption process. In some contexts, medical knowledge and cognitive skills were explained to be strongly valued above social skills, therefore creating a lack of interest and limited willingness to create space for learning modules addressing health literacy skills. Similarly, in some contexts, health literacy was associated with a

less favored patient group, or a group that was generally disrespected in society. Creating awareness about the importance of health literacy and the related learning modules by teachers and decisions makers was therefore a challenge. These values and opinions about the subject of the project can frustrate the process and potentially limit the outcomes. Former studies did address attitude-related contextual factors in implementation processes (such as educational values and generational attitudes),[9] however, the societal, sometimes deeply rooted, values shaping the attitudes linked to particular study subjects was not addressed yet. Similarly, also the differences in norms and values concerning the importance of communication skills training that appeared between the different healthcare disciplines should not be forgotten. In general, we had the impression that the medical curricula in the three countries were usually spending less time on social skills compared to the nursing and paramedical curricula, making the possibilities, and therefore strategies for implementing such projects, different. It seems that some institutes, or sometimes even particular programs within institutes, have a more favorable 'culture' towards the goals of IMPACCT. This indicates that in some contexts a larger degree of change is needed for successful implementation of the learning modules. This is important to be aware of when starting such a change process, because this might asks for adjustments of the project goals and make, initially, smaller steps in particular contexts to start initiating a bigger change.

The position and context sensitivity of project group members, the extent to which developments in the organizations match with the innovation project, and available resources were related to processes of change. Furthermore, knowing the implicit and explicit rules in each institute seems to be an important aspect for those involved in such projects. As the variety of formal and informal routes and approaches in the included institutes in this study showed, mistakes, following the 'wrong' paths, could be easily made if people are not aware of these local preferences and differences. Generally, in curriculum change projects, there is a tendency to focus on the content and didactical aspects of the curriculum, often overlooking the important (underlying) organizational processes, such as governance.[24] Our results emphasize the importance of taking these organizational processes into account when initiating change in different institutes.

More broadly, our results show that it is difficult to reach harmonization, both in the implementation processes and eventual outcomes. In the different settings we encountered, we observed that everybody needed different strategies to prepare implementation of at least parts of these learning modules, and that all the learning modules will be used differently, and transformed into different formats, matching the local circumstances. Our results therefore resonate with current conversations about the tensions between standardization and contextualization in medical education.[7,11,12,14] As for the EU, standards in education *"are*

essential for managing education across Europe within and between states, and in the new knowledge economy in which it is central."[1] However, we agree with Bates et al. that *"absolute standardization of education"*, including its experiences and outcomes, is impossible due to the inevitable diversity of educational contexts.[7] Nonetheless, although absolute standardization of education might not be feasible, standardization could be approached on multiple levels. Maybe reaching a standardization in learning practices is not feasible, still the standardization of learning goals at various places in Europe might be. For such EU projects we believe that embracing the differences and diversity of each context, and making such curriculum development projects work in different places should be the ultimate aim.

Implications

This study empirically illustrates, and therefore supports, the mentioned importance of understanding the contextual elements that play a role in the adoption of curriculum change.[6] To enable transnational curriculum change processes we suggest to conduct a careful analysis of each partners' context, schedule early site visits to be able to understand the particular contexts and explore best ways to go to make the project into a success, and if needed, ensure capacity building of project team members to influence their context. We believe that understanding the different layers of context is vital for successful implementation strategies, but we wonder how often a deeper exploration of context happens when curriculum changes are initiated. Additionally, in transnational projects, being particularly aware of the values and attitudes towards the subject of interest seems crucial to take into account when considering strategies for implementing curriculum changes.

Strengths and limitations

One of the strengths of this study is that we address a relatively unexplored, yet growing phenomenon in medical education, using a multi-institutional approach. We took the opportunity to study the contextual elements in transnational curriculum innovation processes, a setting that we anticipate is going to become more and more common as globalization processes move on. Another strength of our study is that we included a wide range of stakeholders, including teachers, coordinators, healthcare professionals from various backgrounds and also people from higher management levels in the universities or related hospital boards. However, one perspective that we did not include was those of students. Future studies might want to explore also students' perspectives on the contextual elements of curriculum change implementation, through their 'curriculum users' point of view. Another merit of this study is that we conducted the interviews during the development and adoption (pre-implementation) phase. Therefore, we

assume that participants have been well aware of the challenges they faced while being in this process.

As a limitation of this study we would like to address the possible language barrier participants perceived. All participants, including the interviewers, had to speak in English which was not their native language. This might have hindered participants in expressing themselves as they would have done in their own language. To diminish this potential problem we indicated on forehand whether participants needed an interpreter. In four cases an interpreter was available, however, in most cases it turned out people were able to express themselves. At the end of each interview we asked the participants whether they could have said what they wanted to say, which was in all cases confirmed. Additionally, the findings in this study did not include the processes in the other three participating countries, the Netherlands, Belgium and Ireland. Future studies might want to follow such transnational projects over time to see how the project develops, and also changes concerning the contextual elements that might be different at different points in time, and how this might have an impact on successful implementation.

Conclusion

The implementation of transnational curriculum projects is a complex endeavor. Stakeholders involved in the development and implementation of transnational curricula change projects should take the contextual factors into account when implementing learning modules in different contexts.

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