Research Project for GHS

(length: 2 to 4 pages, written by the candidate; minimum font size: 11pt)

Name	
Project Title	

Background (*max 1 page*)

Competency-based medical education attracts worldwide interest and influence at the under- and postgraduate level. In Canada, the CanMEDS, a competency-based medical education (CBME) framework was introduced and since then, educators in many countries, have started to develop, implement and assess competency-based curricula (O'Dowd et al., 2019, Meyer et al., 2019, Sottas, 2011). Core aspects of competencies can be operationalized as entrustable professional activities (EPAs) (Carraccio et al., 2017). EPAs translate competencies to observable clinical activities. EPAs can be defined as an activity that is entrusted to a trainee without direct supervision once the trainee has demonstrated the competencies to do so (ten Cate, 2005). Another important element in this context are entrustment-supervision scales: They define a range of entrustment levels in order to indicate, whether residents can perform a clinical task (such as an EPA) e.g. under close, distant or without any supervision. The entrustment decision is made by a supervisor and contains the decision, under what kind of supervision the trainee is allowed to perform the clinical task (Ten Cate et al., 2020).

On the undergraduate level, the national curriculum „PROFILES" has been introduced in Switzerland. PROFILES defines nine different EPAs that should be taught and learned during medical school (Michaud et al., 2016). The goal for all medical students who start their residency training is to be able to perform the defined clinical activities under indirect supervision. On the graduate level, the catalogue of learning objectives for residency training in Switzerland has been developped on the basis of the CanMEDS framework (SIFW, 2020). In contrast to undergraduate training, postgraduate curricula are still at the beginning of developing and introducing EPAs. So far, postgraduate EPAs have been developed only for a few different specialities in Switzerland. Concerning the speciality field of psychiatry, the Royal Australian and New Zealand College of Psychiatrists (RANZCP) structured the whole residency training for psychiatry and psychotherapy based on EPAs. Canadian educators have started to develop EPA guides for psychiatry. The implementation of EPAs in the Swiss postgraduate training in psychiatry has been recommended by specialty working groups and brings a chance to improve residency training and ultimately patient care
(Pinilla et al., in press) - this includes all speciality fields in psychiatry such as old age psychiatry.

The purpose of this research project is to investigate needs and requirements for an EPA-based curriculum, to identify a set of EPAs specifically for old age psychiatry and to develop assessment methods of some of the identified EPAs. With the proposed studies, we expect to have a foundation to further develop a curriculum for residency training in old age psychiatry in terms of residents' achievement of learning outcomes, improving patient safety and patient care quality.

Hypothesis & Aims

Study 1: Identifying needs and challenges of residency training in old age psychiatry with implicatons for patient safety and physician well-being– a mixed method study (survey and interview study)
The first study has the aim to explore the current state of residency training in old age psychiatry in order to understand the specific needs of the residents and gain insights for required curriculum development. This study also aims for a more detailed look into previously known difficulties (less structured residency training, heterogeneity in speciality training of residents (Buddeberg-Fischer et al., 2010) and different backgrounds of undergraduate training of residents (Hudelson, 2006)). We plan to investigate how entrustment decisions are made at present. Research in other educational systems suggests that residents can feel overentrusted and this could possibly influence patient safety and quality of care (Yardley et al., 2020, Karp et al., 2019). Our aim is to gain insights in this phenomen by better understanding what the challenges are in current residency training in Switzerland and what is needed for the further development of the residency curriculum. This study will also provide implicatons for physician well being and patient safety.

Research Question: How do current residents in old age psychiatry in Switzerland perceive the beginning of their clinical rotation regarding their prepardness, entrustment decisions and curricular support?

Study 2: Developing EPAs for old age psychiatry in Switzerland – a Delphi study

The goal of this second study is to develop and identify several end-of-training EPAs with a Delphi process for old age psychiatry that build the core for a competency-based residency program.

Research questions: Which EPA should residents in old age psychiatry be able to perform on an indirect supervision level at the end of the clinical rotation in old age psychiatry? Aim: Establishing consensus for a set of validated entrustable professional activities in old age psychiatry.

Study 3: Implementing clinical teaching and assessments for a pilot EPA in old age psychiatry: a mixed-methods study

The aim of this study is to implement and assess a pilot EPA established in Study 2 regarding clinical teaching and the corresponding workplace-based assessments.

Research Question: How do targeted clinical teaching activities and assessment of an EPA in old age psychiatry residency training affect resident's feelings of preparedness, their supervison levels and resulting entrustment decisions? Hypothesis: Systematic teaching activities and targeted assessment of an EPA does improve resident's feelings of preparedness, support self-regulated learning behaviour and informs entrustment decisions and supervision levels.

Methodology & Research Plan (Specify the criteria for selection of patients/volunteers, give detailed information on evaluation strategy and the models/paradigms that will be used.)

Study 1: The first step in the development of a competency-based curriculum is a needs assessment (Frank et al., 2007). We chose a mixed-methods approach and intend to combine an online questionnaire and semi-structured in-depth interviews. Starting with the online questionnaire, we will invite residents who are currently in a rotation in old age psychiatry to participate in a nationwide survey and explore salient findings through in depth interviews. Survey and interview questions will be developed based on relevant literature in the context of competency-based medical education (CBME) (Frank et al., 2010) and state of the art survey design guidelines (Artino et al., 2014). Proper understanding of the questions ("response process") will be investigated in form of a think aloud pilot study with residents from the university psychiatry hospital in Berne (UPD). Narrative responses to a subset of survey questions and in-depth interviews will be analysed using thematic content analysis (Braun et al., 2006).

Study 2: In order to develop a validated set of EPAs for old age psychiatry, the Delphi method will be applied, to establish consensus. It is based on a multistaged, several rounds long procedure in which experts' opinions are iteratively soliceted until consensus is reached (Linstone et al.,1975). In order to have an initial draft, literature, including grey literature, will be reviewed. In conformity with a previous study on end-of -training EPAs for psychiatry in the US, the initial drafts will be reviewed by staff that is familiar with EPAs in order to meet quality criteria (Young et al., 2018). They include having a clearly defined beginning and end, being specific and focused, observable in process and measurable in outcome (Taylor et al., 2017). The next step will be the actual start of the Delphi study with multiple rounds of experts in old age psychiatry in Switzerland (recruited with support from the Swiss Society of Old Age Psychiatry, SGAP) who will be introduced and informed about the construct of EPAs and will rate the initial drafts. In the first round, we plan to give experts the chance to rate EPAs regarding their relevance and to suggest changes to the title and descripton and to submit additional comments. This includes to propose EPAs that out of their perspective are missing or to eliminate irrelevant EPAs. In the second round the revised EPAs will be re-rated on relevance and written feedback can be submitted. This will lead to a national consented set of EPAs for old age psychiatry in Switzerland.

Study 3: This study will take target residents and other health care workers from the University Hospital of Old Age Psychiatry and Psychotherapy at the University of Bern. The underlying theory and paradigm is again rooted in the literature of CBME and EPAs. We assume, that a potential old age psychiatry EPA such as "Managing acutely agitated and psychotic geriatric patients" will be a required EPA (as to be confirmed in Study 2) and qualifies as a complex and relevant clinical activity. Teaching and assessment activities including preparation with literature and video examples for simulated scenarios with simulated patients

(actors) will be conducted (Kollewe et al., 2018). The training and assessment sessions will be filmed and reviewed by multiple supervisors. In order to gain knowledge on how residents, supervisors and other members of the healthcare team perceive the specific training and assessments on a single EPA, interviews will be conducted after these sessions. These interview data will be analysed based on a thematic content analysis approach (Braun et al., 2006). Further, the

video material on residents' performance with simulated patients will be rated through several supervisors based on an entrustment-supervision scale.

Possible Pitfalls

The collection of data and analyses might take longer than planed (e.g. the responses in the Delphi-process may come delayed; the coordination and response time of the survey may take longer). Through the support of the association of psychiatrists in Switzerland (SGPP) we hope to achieve a sufficient response rate.

Timetable (important, graphic representation of the tasks of the whole PhD to be evaluated on a yearly basis)
NOTE: doctoral students for FKIII (PhD in Clinical Sciences) should also clearly indicate the respective time periods of clinical and research practice.

Example:

		2020	2021				2022				2023			
		Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
PhD-Program training requirements	GHS courses (min. 18 ECTS)	███	███	███	███	███	███	███	███	███	███	███	███	
	Exam I					███								
	Exam II										███			
	Thesis defence													███
Ethics requirements	Application to and review by ethics committee		███	███										
Aim 1 – Needs Assessment Study	Survey Data Collection			███	███									
	Interview Data Collection					███								
	Analysis						███							
	Publication							███	███					
Am 2 –Delphi Study	Delphi Data Preparation			███	███	███								
	Delphi Data Collection					███	███							
	Data Analysis								███					
	Publication									███	███			
Aim 3 – Assessment Study	Implementation Design Planning						███	███						
	Data Collection								███	███				
	Analysis										███	███		
	Publication											███	███	███

Collaborators (Who is doing what?)

your specific tasks as PhD
Name, role (thesis advisor) and tasks
Name role (co- thesis advisor) and tasks
Name role (co- referee) and tasks
Name role (…..) and tasks
Name role (…..) and tasks

Publications plan (specify where you will be first author and check our homepage: https://www.ghs.unibe.ch/research/publications/index_eng.html)

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Application to Ethics Committee	☐	Not applicable
	☒	Applicable