International Scientific Conference of Primary Care



November 23-24, 2023 Cankarjev dom, Ljubljana, Slovenia

CONFERENCE PROCEEDINGS

ORGANISED BY:





Univerza *v Ljubljani Medicinska* fakulteta

Colophon

Title: Proceedings of the 2nd International Scientific Conference of Primary Care - ISCPC

Organised by: Community Health Centre Ljubljana Medical Faculty, Faculty of Medicine of the University of Ljubljana

Editorial office: Community Health Centre Ljubljana, Metelkova ulica 9, 1000 Ljubljana, Slovenia.

Editor: Prof. Zalika Klemenc Ketiš, M.D., Ph.D.

Review by: Assist. prof. Eva Cedilnik Gorup, MD, PhD; Prof. Venija Cerovečki, MD, PhD; Biljana Đukić, MD, PhD; Assist. Prof. Vesna Homar, MD, PhD; Assist. Prof. Vojislav Ivetić, MD, PhD; Assist. Prof. Nena Kopčavar Guček, MD, PhD; Marc Lazarovici, MD, PhD; Assoc. Prof. Zlata Ozvačić Adžić, MD, PhD; Prof. Davorina Petek, MD, PhD; Goranka Petriček, MD, PhD; Prof. Danica Rotar Pavlič, MD, PhD; Prof. Brigita Skela Savič, PhD, M.S., B.S., RN; Aleksander Stepanović, MD, PhD; Prof. Gregor Štiglic, PhD; Assoc. Prof. Ksenija Tušek Bunc, MD, PhD; Assoc. Prof. Erika Zelko, MD, PhD

Design and graphic design: Gregor Rogač, Nastja Slak Documentation processing: Cankarjev dom, Prešernova cesta 10, 1000 Ljubljana Web address: https://www.iscpc.si/ File: PDF Publication: November 22, 2023 Publication price: not for sale Published: Ljubljana, November 2023 Copyright © Community Health Centre Ljubljana The content of articles, photos and posters is the responsibility of authors.

Kataložni zapis o publikaciji (CIP) pripravili v Narodni in univerzitetni knjižnici v Ljubljani COBISS.SI-ID 172544771 ISBN 978-961-6613-14-9 (PDF)

COMMITTEES

ORGANISING COMMITTEE

Tea Stegne Ignjatovič (Chair) Robertina Benkovič Urška Godec assist. prof. Nena Kopčavar Guček Renata Milešević Ana Pintar Bojc Anja Poženel Belec Nataša Stojnić Polona Szilvassy Rajka Vignjević Pupovac Uroš Zafošnik

SCIENTIFIC COMMITTEE:

Prof. Zalika Klemenc Ketiš, Slovenia (Chair) Prof. Venija Cerovečki, Croatia Prof. Mark Lazarevici, Germany Prof. Davorina Petek, Slovenia Prof. Antonija Poplas Susič, Slovenia Dr. Andree Rochfort, Ireland Assoc. Prof. Bohumil Seifert, Czech Republic Assoc. Prof. Brigita Skela Savič. Slovenia Prof. Gregor Štiglic, Slovenia Prof. Dr. Katerina Stavrić, North Macedonia Prof. Sara Willems, Belgium

Organised by:

The Community Health Centre Ljubljana & The Faculty of Medicine, University of Ljubljana



Under Patronage:



VENUE Cankarjev dom Cultural and congress centre Prešernova 10 1000 Ljubljana https://www.cd-cc.si/en





Univerza v Ljubljani

Medicinska fakulteta

SOCIETY FOR SIMULATION IN EUROPE



Decision-oriented aspects of a university primary care centre: A multidimensional analysis in the context of the Johannes Kepler University Linz

Aigner P^{1,2}, Bekelaer F¹, Rebhandl E^{1,3}, Zelko E¹ ¹ Institute of General Practice, Johannes Kepler University Linz, Austria² SOLVE Consulting Managementberatung GmbH, Vienna, Austria, ³ HAUSARZTMEDIZIN PLUS Gruppenpraxis für Allgemeinmedizin OG, Haslach, Austria philipp.aigner@solve.at

Abstract—The Institute of General Practice of the Johannes Kepler University Linz is planning to establish Austria's first university primary care centre - a group practice at the primary care level which is organizationally integrated into the university. In addition to the provision of regional primary care, this pilot project is envisioned to facilitate practical training for medicine students and patient access for academic research in the field of general medicine. Therefore, it can be expected to simultaneously address several significant challenges faced by Austria's healthcare and education system. Based on literature research, this paper identifies eight conceptually distinct elements which are decision-relevant for the establishment of the university primary care centre and evaluates whether this endeavour appears to be fundamentally feasible from the respective perspectives. Additionally, relevant concepts and success factors are discussed at the level of each of the eight elements. Patient care, practical teaching, and academic research are identified as the three core elements which represent the services directly provided to the university primary care centre's customers - i.e., patients, students, and researchers. Additionally, legal structure, organization and management, business administration and finance, location and premises as well as IT infrastructure are identified as the five support elements. This concept is illustrated by a figurative house which has a foundation composed of the five support elements and a main floor consisting of the three core elements, all under the roof of a university primary care unit. After the analysis of each dimension separately, it can be concluded and confirmed that the establishment of Austria's first university primary care centre in Linz appears to be fundamentally feasible. Due to its innovative approach, this pilot project can serve as a blueprint and case study for similar undertakings, in other parts of Austria but also beyond. Therefore, further accompanying scientific analyses are recommended.

Index Terms-Austria; Education, Medical, Graduate; General Practice; Health Facility Planning; Primary Health Care

Ι INTRODUCTION

Austria is facing several challenges in sustainably maintaining the provision of primary health care at the currently high level of quality. Amongst the most crucial challenges is the existing lack of general practitioners which is

predicted to further aggravate significantly over the next decade due to the retirement wave of doctors of the baby boomer generation, the increasing demand for medical care due to the aging population, and the shortage of medical graduates pursuing training in the field of general medicine. [1,2]

Beyond direct patient care, the provision of practical teaching to medicine students is considered a challenge as well. Practical lessons form an integral part of the curriculum of the human medicine degree but since, in contrast to other medical specialties, general medicine does not have a corresponding department at the university hospital, the organization of such training is often laborious and complex. [2,4]

Another notable challenge in the field of general medicine is the access to primary patient data for research. Since patients cannot be accessed through a corresponding department at the university hospital, the Institute of General Practice of the Johannes Kepler University Linz ("JKU") has established a research network including several general medicine practices spread over Upper Austria. However, the research collaboration with the network members is relatively complex and laborious due to their geographical dispersion and the need for coordination. [5]

The JKU is located in Linz, capital of the federal state of Upper Austria, and currently offers 310 university places per year to medicine students through its medical faculty. The university's Institute of General Practice is currently working on the pilot project to establish Austria's first university primary care centre which is organizationally integrated into the medical faculty. As such, it is envisioned to unite regional medical care for patients at the primary level with enhanced opportunities for academic research and practical teaching in the discipline of general medicine, thereby tackling the challenges described above. The term primary care centre is specified by Austrian federal law and describes a specific form of group practice at the primary care level. Together with primary care networks, which describe a specific form of collaboration by close-by practices, the corresponding umbrella term is primary care unit. Of the currently 50

primary care units which are operational across Austria, none is organizationally integrated into a university, thus making this a pilot project not only for the region of Upper Austria but also for Austria and beyond. [4,6]

After having developed the vision and having secured the general support of relevant stakeholders, such as the *Austrian Health Insurance Fund* and the *Upper Austrian Medical Chamber*, the *Institute of General Practice* is currently planning and negotiating matters regarding the implementation of Austria's first *university primary care centre*. Aim of this paper is to support this innovative pilot project by providing a scientific basis focusing on decision-oriented aspects from multiple relevant perspectives.

II. MATERIAL AND METHODS

The data used in this research was gathered through analyses of literature. For this purpose, the *Handbook for Founding a Primary Care Unit* [7] was used as one of the main sources of information and forms the conceptual basis of this paper's analyses. This 204-page-long document was published in its latest edition in August 2023 by the Austrian *Federal Ministry of Social Affairs, Health, Care and Consumer Protection* and was created in collaboration with various subject matter experts including the *National Public Health Institute*. Its intended purpose is to provide a structured overview on how to establish a *primary care unit*, therewith making it a fitting document to base this paper on, in terms of content and reliability.

Methodically, in a first step, conceptually distinct and decision-relevant dimensions of the implementation of a *university primary care centre* are identified and defined, based on the insight from literature. Those elements are then conceptionally organized and sub-divided. In order to meet the aspiration for multi-perspectivity, in each case, it is researched whether, the integration of a *primary care centre* into the *JKU* appears to be fundamentally feasible from the respective perspective. Also, decision-relevant factors and concepts are identified and discussed in the light of the pilot project.

III. RESULTS

From the vision and aspired purpose of the *university* primary care centre described in the introduction, it is evident that relevant aspects of this undertaking comprise the provision of primary care for patients, the facilitation of practical training for medicine students as well as patient access for academic research in the field of general medicine. These three aspects fulfil the criteria of being decisionrelevant and conceptually distinct from each other. Therefore, they are regarded as separate dimensions to be analysed in the course of this work. The Handbook for Founding a Primary Care Unit is structured around five dimensions, each of which is deemed decision-relevant for setting up a primary care unit and to each of which a separate chapter is dedicated. Those five dimensions are composed of the legal structure, organization and management, business administration and finance, location and premises, and IT infrastructure. Since they meet the criterium of decision-relevance and are conceptionally distinct from one another other as well as from the three dimensions identified earlier, they are included as elements to be discussed in this analysis.

So, overall, eight conceptually distinct dimensions can be identified as decision-relevant for setting up a *university primary care centre.* (see *Fig. 1*) According to business management theory, these can be sub-divided into core and support elements, whereby *patient care, practical teaching,* and *academic research* are counted towards the core elements since they represent directly value-adding aspects of a *university primary care centre.* The remaining five dimensions are classified as support elements because they merely represent aid functions which are needed to enable the actual services provided to customers. The term *customers* in this context refers to patients, medicine students, and academic researchers, in accordance with the three core elements identified. [8]

Symbolically, a house can be used to portray this concept in a structured, yet illustrative fashion. Therein, the support elements can be depicted as the indispensable foundation on which the core elements are built as the main floor, all under the common roof of a *university primary care centre*. The visualization of this concept is shown below as *Fig. 1*.



Figure 1. Visualization of decision-relevant elements.

In the following paragraphs, for each of the eight elements identified, relevant success factors and concepts are identified and discussed. Also, the question whether the establishment of a *university primary care centre* presents itself as fundamentally feasible is answered at the level of each element.

1. Patient care

According to the Austrian primary care act, patientoriented goals which need to be met by every primary care centre include primary care close to patients' homes, good accessibility by public transportation, extended opening hours including non-office hours, reachability outside of opening hours in acute cases, integration of telephone- or web-based services, administration of home visits, guarantee of continuity for patients, accessibility for persons with a disability, measures to mitigate language barriers, availability of required medical(-technical) equipment, and participation in preventive, screening and integrated healthcare programmes. The services to be provided in particular have to include the provision of primary care to paediatric, elderly, chronically ill, and multimorbid patients as well as psychosocial healthcare, drug monitoring, health promotion, and disease prevention. In a healthcare concept, which must be prepared when establishing a *primary care centre*, those patient-oriented aspects need to be demonstrated and discussed in the light of the region to be served. [7]

In addition to the patient-oriented aspects listed above, a *university primary care centre* can contribute to patient care by attracting medicine students into the field of general medicine, hence securing the next generation of general practitioners. This is the case because, on the one hand, work in a group practice is considered favourable by aspiring practitioners. On the other hand, a significant share of medicine students wishes to work in academia, some of which could potentially be interested in a career in general medicine if teaching and research formed an integral part. Overall, the establishment of a *university primary care* centre can be regarded as fundamentally feasible, and even advantageous, from a patient-oriented perspective. [1,2,3,9]

2. Practical teaching

Practical teaching forms an integral part of the human medicine curriculum. Throughout the first five years of their education, medicine students at *JKU* take practical seminars organised by the *Institute of General Practice* in the extent of 1 ECTS per semester. In the sixth and final year, students complete a *clinical-practical rotation* of which four weeks are spent in the field of general medicine. Of the mandatory twelve weeks of clinical traineeships, which must be done during the first ten semesters, four weeks are recommended to be spent in the field of general medicine, which is currently rewarded with a scholarship of 400 euros. Multiple studies suggest that the exposure of students to general medicine, in particular through practical experiences, increases the likelihood of them taking up a career in this field. [2,3,9]

Through the establishment of a *university primary care centre*, the complexity and effort of organising practical teaching can be expected to decrease due to the generally close collaboration. Additionally, increased patient contact, deeper insights into practice work, and new formats might be offered to students. Therefore, a *university primary care centre* can be confirmed to be feasible and advantageous from a teaching perspective.

3. Academic research

Academic research in the field of general medicine can be regarded as currently underdeveloped, even though it can contribute to improved patient care, the attractiveness of the field to aspiring practitioners, and the motivation of practising doctors. The forming of research networks involving several practices, such as the Norwegian *PraksisNett*, represent one viable way to improve research at the primary care level. Also the *Institute of General Practice* is currently conducting research via a network of practices, however with comparatively high coordination effort. [5,9]

With the implementation of a *university primary care centre*, access to patients for research purposes at the primary care level can be expected to be more easily possible due to the close collaboration between the university and the practice, thereby likely reducing coordination effort and enabling a quantitative and qualitative increase in research. Therefore, the

feasibility and advantageousness can be confirmed from this perspective.

4. Legal structure

In the Handbook for Founding a Primary Care Unit, the legal form of organization, employment relationships, and contracts with external partners are identified as decisionrelevant factors from a legal perspective. According to the Austrian primary care act, a primary care centre can be founded as either a group practice or an independent outpatient clinic. The former must take the legal form of a limited liability company whereby admissible shareholders are healthcare professionals with a right to work self-employed, such as doctors and certified nurses, who work in the primary care centre full-time. The majority of shares must be held by doctors, though. An independent outpatient clinic is subject to stricter, more complex regulations since the hospital act applies instead of the *practitioners' act*; however, with reliefs and exemptions. In this case, the legal form can be chosen freely but only non-profit healthcare organizations and public institutions can be proprietors. Employment relationships can take the form of salaried employment, independent contractors, and management contracts. Depending on the concrete contractual specifications, independent contractors can either be liable for the delivery of agreed-upon results or the sheer delivery of work at a reasonable level of effort. Factors determining the mix of employment relationships include costs, availability of workers, flexibility, and personal preferences. The most significant contract with an external partner is the primary care contract which is agreed upon between the primary care centre and the social insurance, within the options depicted by the federal primary care contract framework. It determines the primary care centre's services and the remuneration from the social insurance. Other relevant external contracts comprise a potential rental agreement, financing contracts, and supply agreements. [6,7]

As a public institution, the *Institute of General Practice* could become proprietor of the *university primary care centre* if the legal form of an *independent outpatient clinic* would be chosen. However, in consideration of the respective regulations, the *Institute of General Practice* envisions the form of a group practice. In this case, the ownership of the *university primary care centre* is independent from the institute and the collaboration is solely based on contractual agreements and organizational integration, which appears to be sufficient. In any case, contractual agreements between the two parties are necessary, stipulating each party's responsibilities, services, and remuneration, particularly with regard to teaching and research. Considering the legal perspective, the *university primary care centre* appears to be fundamentally feasible.

5. Organization and management

According to the *Handbook for Founding a Primary Care Unit*, the team of employees, the service portfolio, and the structural and process organization are the main decisionrelevant factors regarding the organization and management of a *primary care centre*. The *primary care act* requires each practice to have a core team which must consist of two general practitioners and one certified nurse, as a minimum requirement (except for dedicated paediatric practices which can have two paediatricians instead of general practitioners). Additionally, the core team can comprise paediatricians and administrative assistants. In the extended team of a *primary* care centre, persons of the following professions can be integrated: nutritional science, occupational therapy, logopaedics, psychology, midwifery, physiotherapy, psychotherapy, social work, massage therapy, medical technology, and gynaecology. If a respective necessity can be proven, a primary care centre manager, with professional expertise in business and management, can be hired at the expense of the social insurance to support the founding and operation. Beyond the borders of the own organization, cooperations with external partners, such as pharmacies and laboratories, can be set up. The required quantity of persons of the different professions is contingent to the aspired service portfolio and opening hours, which must add up to at least 47 hours per week on all five workdays also including non-office hours in the morning and in the evening. Structural organization describes the allocation of roles and responsibilities among the team of the primary care centre, hence creating a hierarchy. This is typically depicted in an organigram. Process organization describes the workflow of tasks, defining the trigger, the person in charge, the tools, and the timeframe, amongst other parameters. Processes can be divided into management processes, core processes and support processes and are typically depicted in a process landscape. In the application process, all of the parameters discussed in this chapter must be set down in a detailed concept and reflected in the light of to the region to be served. [7,8]

In the *university primary care centre*, the cooperation with the *Institute of General Practice* should be reflected in the organigram and process landscape, showing the involvement of members of the institute and defining relevant processes, in particular with regard to teaching and research. A designated *primary care centre manager* could, aside of his or her *usual* responsibilities, also act as contact person and interface to the university. In order to additionally integrate the two organizations and facilitate cooperation, personnel could be deployed in both the *Institute of General Practice* and the *university primary care centre*. For example, a doctor working as a lecturer and researcher at the institute could also practice at this *primary care centre*. Overall, the fundamental feasibility can be confirmed from an organizational perspective.

6. Business administration and finance

Decision-relevant aspects in the field of business administration and finance include investments, financing, and operational profit, according to the *Handbook for Founding a Primary Care Unit*. The interplay of those factors must be described and depicted based on projections in a *finance plan* which itself forms an integral part of the *business plan*, giving an overview of the whole business concept. The most important ways of representation of financial information are the cash-flow statement, the income statement, and the balance sheet. Investment costs with regard to the founding of a *primary care centre* comprise costs for buying, adapting, and/or furnishing the premises, costs for the acquisition of equipment, machines, and vehicles, costs for legal, tax, architectural, and business consulting, notary costs, stampduties, and up-front costs for salaries. In order to be able to pay those costs when due, adequate financing is needed. Capital contributions from the proprietors, loans, and grants typically form the long-term side of financing. For the legal form of a limited liability company, 35,000 euros are legally required as capital contributions which represent the company's minimum equity. However, larger capital contributions may likely be necessary in order to fill the financing gap between the investment costs and the funds acquired through loans and grants. Loans are usually taken out at banks but also loans from other organizations or persons are possible. Grants are non-repayable funds usually granted by public bodies in order to promote desired actions. The most significant one currently available is funded through the EU's Resilience and Recovery Fund and reimburses Austrian founders of a primary care centre with 50% of the initial investment costs up to an investment sum of 3,200,000 euros, with the specific intention to promote the expansion *primary* care units in Austria. Operational profit refers to the difference between revenues and costs occurred in the business operation. Different remuneration models for medical services provided are available to be chosen from. [6,7,8]

Considering the high degree of innovation and benefit for the public, a *university primary care centre* might qualify for additional grants or supported loans. The provision of practical teaching and academic research can be expected to result in increased investment needs due to higher spacing requirements and additional equipment. Also, the time spent on teaching and research can be expected to result in additional personnel costs and/or loss of revenues. Therefore, the services provided by the *university primary care centre* to the university, and vice versa, need to be remunerated based on contractual agreements. From a financial perspective, it can be confirmed that the founding and operation of a *university primary care centre* appears to be fundamentally feasible.

7. Location and premises

According to the Handbook for Founding a Primary Care Unit, decision-relevant factors regarding location / premises primarily include the selection of a suitable location and the planning of the interior and facilities. The location selection process is determined by the regional structural plan for healthcare and the practice plan which represent public specifications where practices can be established. Within the regulatory specifications, the concrete location can be chosen based on the following regional criteria: demand potential, competition. infrastructure, transport connection. agglomeration factors (i.e., regional cooperation partners, such as pharmacies and laboratories), staff recruiting potential, availability of premises, availability of regional funding, and personal preferences of the founders. The planning of the premises is recommended to be done via room and function programs which are based on detailed guidelines determining the quantity, spacing and figuration requirements for different areas, such as doctor's rooms, therapy rooms, waiting rooms, reception areas, personnel facilities, offices, sanitary facilities, utility rooms, and hallways, in the light of the envisioned service portfolio and projected number of patients. [6,7]

It is to be expected that specific requirements on the location and premises arise for a university primary care centre. Concretely, its location should be in close proximity to the university premises in order to facilitate the collaboration on teaching and research. According to the current planning status of the pilot project, the establishment in direct proximity to the university is likely not feasible due to the already sufficient availability of primary healthcare in this region. However, close-by regions in the town of Linz, which are easily accessible by public transport from the university, are undersupplied and hence offer the opportunity to set up a primary care centre. In the room and function program, the presence of students and researchers should be factored in. This could, for instance, be achieved by planning doctor's rooms with larger floor space and additional furniture to accommodate students. Also, the planning of additional rooms designated to seminars for students and research activities may be sensible. It can be concluded that, fundamentally, a university primary care centre appears to be feasible from the perspective of its location and premises.

8. IT infrastructure

The Handbook for Founding a Primary Care Unit recommends that through the specification of an IT architecture, the necessary IT components are attributed to different software solutions which often include several components in one product. The planning but also the operation of the IT landscape can be regarded as complex and laborious which is why the involvement of (external) professionals is usually necessary. [6,7]

In the context of a *university primary care centre*, additional requirements to an IT structure are to be expected. Particularly, the collaboration with the *Institute of General Practice*, including the administration of practical teaching sessions for students and access for researchers, should be reflected in the IT landscape which could be achieved by creating interfaces to the university's IT systems or using additional specific software. Overall, the fundamental feasibility of a *university primary care centre* can be confirmed from an IT perspective.

Conclusion

According to this research, the fundamental feasibility in the context of a *university primary care centre* can be affirmed in all of the eight perspectives which were identified. For each of them, decision-oriented factors and concepts could be identified and discussed.

IV. DISCUSSION

In accordance with the designated aim of this research, the findings provide a scientific basis upon which the *Johannes Kepler University*'s *Institute of General Practice* can build its pilot project – the establishment of Austria's first *primary care centre* which is integrated into a university. Since from all of the eight decision-relevant dimensions identified, the

feasibility could be fundamentally confirmed, this can be regarded as a validation that the project is likely to be able to be successfully implemented and operated. Furthermore, due to its innovative approach, this pilot project can serve as a blueprint and case study for similar undertakings, in other parts of Austria but also beyond. Therefore, also, further research is recommended.

It is yet to be seen to which degree the *university primary care centre* will be able to tackle today's challenges concerning general medicine, such as the sufficient provision of primary care to patients, the administration of practical teaching for medicine students, and the access to patients for researchers in the field of general medicine. However, positive impacts in those areas are likely to be expected. Further research could substantiate those effects.

ACKNOWLEDGMENT

The authors gratefully acknowledge the support of the *Institute of General Practice* of the *Johannes Kepler University Linz* without which this research would not have been possible. Also, *SOLVE Consulting* is cordially thanked for providing invaluable guidance in the field of healthcare planning through access to their professional experts.

REFERENCES

- Rechnungshof Österreich (RH). Bericht des Rechnungshofes: Ärztliche Versorgung im niedergelassenen Bereich. Vienna: RH; 2021. (Reihe Bund; no. 30/2021).
- [2] Blozik E, Erhardt M, Scherer M. Förderung des allgemeinmedizinischen Nachwuchses: Initiativen in der universitären Ausbildung von Medizinstudierenden. Bundesgesundheitsbl. 2014;57:892-902.
- [3] Stelner-Hofbauer, Melser MC, Holzinger, A. Allgemeinmedizin: attraktives Arbeitsfeld oder Stiefkind der Medizin?: Einstellungen von österreichischen Medizinstudierenden zur Allgemeinmedizin im städtischen und ländlichen Raum. Präv Gesundheitsf. 2020;15:143-150.
- [4] Johannes Kepler Universität Linz (JKU) [Internet]. Linz: JKU; [cited 2023 Sep 30]. Available from: https://www.jku.at
- [5] Kristoffersen ES, Bjorvatn B, Halvorsen A, et al. The Norwegian PraksisNett: a nationwide practice-based research network with a novel IT infrastructure. Scand J Prim Healthc. 2022;40(2):217-226.
- [6] Plattform Primärversorgung [Internet]. Vienna: Gesundheit Österreich GmbH; [cited 2023 Sep 30]. Available from: https://primaerversorgung.gv.at
- [7] Deloitte Consulting GmbH. Handbuch zur Gründung einer PVE. 2nd ed. Vienna: Bundesministerium für Soziales, Gesundheit, Pflege und Konsumentenschutz; 2023.
- [8] Wilkinson, A, Armstrong SJ, Lounsbury, M, et al. The Oxford handbook of management. Oxford: Oxford University Press; 2017.
- [9] Haumann H, Flum E, Joos S. Active participation in research and teaching during post-graduate GP training: perspectives of future general practitioners. Z Evid Fortbild Qual Gesundh wesen. 2016;118-199:65-72.