

# Facilitators and barriers in general practitioners' choice to work in primary care units in Austria: a qualitative study

## Fördernde und hemmende Faktoren für die Tätigkeit von Allgemeinmediziner: innen in Primärversorgungseinheiten – eine qualitative Studie



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### Key words

multidisciplinary care team, primary care physicians, general practice, workforce, primary health care, public health systems research

### Schlüsselwörter

Allgemeinmedizin, Hausarztmangel, Primärversorgung, multiprofessionelles Team, öffentliches Gesundheitssystem

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### ABSTRACT

**Background** Recent reforms in Austria have focused on establishing team-based care within multiprofessional primary care units, to enhance amongst others, the work attractiveness of general practice. Nearly 75 % of qualified general practitioners are not working as contracted physicians with the social health insurance. This study aims to explore the facilitators of and barriers to non-contracted general practitioners to work in a primary care unit.

**Methods** We conducted twelve semi-structured, problem-centered interviews among purposively sampled non-contracted general practitioners. To extract categories of facilitators and barriers for working in a primary care unit, transcribed interviews were inductively coded using qualitative content analysis. Subcategories were grouped into factors (facilitators and barriers) of thematic criteria and mapped on the macro-, meso-, micro-, and individual levels.

**Results** We identified 41 categories, including 21 facilitators and 20 barriers. Most facilitators were located at the micro-level, while most barriers were located at the macro-level. Teamwork and associated conditions made primary care units attractive as workplaces and corresponded with individual demands. In contrast, system factors tended to reduce the attractiveness of working as a general practitioner.

**Conclusions** Multifaceted efforts are needed to address relevant factors at all of the levels mentioned above. These need to be carried out and consistently communicated by all stakeholders. Efforts to strengthen the holistic approach in primary care, like modern remuneration and patient steering mecha-

nisms, are essential. Financial support, consulting services as well as training on entrepreneurship, management, leadership, and team-based care may help to reduce the risk and burden of founding and running a primary care unit.

## ZUSAMMENFASSUNG

**Hintergrund** Rezente Reformmaßnahmen in Österreich zielen darauf ab die team-basierte Versorgung in multiprofessionellen Primärversorgungseinheiten zu etablieren. Diese sollen unter anderem die Attraktivität der hausärztlichen Tätigkeit steigern. Fast 75% der Allgemeinmediziner in Österreich arbeiten nicht als Kassenhausärzte. Das Ziel dieser Studie ist es unter Allgemeinmediziner:innen ohne Kassenvertrag die fördernden und hemmenden Faktoren zu erheben, die für eine Tätigkeit in einer Primärversorgungseinheit zu tragen kommen.

**Methoden** Wir führten 12 semistrukturierte, problem-zentriert Interviews unter gezielt ausgewählten Allgemeinmediziner:innen ohne Kassenvertrag durch. Die Interviews wurden transkribiert und induktiv kodiert unter Verwendung der qualitativen Inhaltsanalyse. Gefundene Unterkategorien wurden zu thematischen Kategorien zusammengefasst und in

weiterer Folge der Makro-, Meso-, Mikro- oder Individualebene zugeordnet.

**Ergebnisse** Wir identifizierten 41 Faktoren, 21 davon förderlich und 20 hemmend. Die meisten förderlichen Faktoren waren der Mikroebene zuordenbar, während die meisten hemmenden Faktoren auf der Makroebene liegen. Teamarbeit und damit verbundene Aspekte lassen Primärversorgungseinheiten als einen attraktiven Arbeitsplatz erscheinen und entsprechen den individuellen Ansprüchen. Dem hingegen reduzieren Systemfaktoren die Attraktivität der hausärztlichen Tätigkeit.

**Schlussfolgerungen** Es braucht vielfältige Bemühungen, um die relevanten Faktoren auf allen Ebenen zu adressieren. Diese müssen von allen Stakeholdern mitgetragen und einheitlich kommuniziert werden. Maßnahmen, um den holistischen Ansatz der Primärversorgung zu stärken, sind zentral. Dazu gehören moderne Honorierungsmodelle und Steuerungsmechanismen. Finanzielle Unterstützung, Beratungsangebote sowie Fortbildungen in den Bereichen Unternehmertum, Management, Führung und teambasierte Versorgung können dazu beitragen, das Risiko und die Last bei der Gründung und dem Betrieb einer Primärversorgungseinheit zu reduzieren.

## ABBREVIATIONS

GP	General practitioner
GPs	General practitioners
PC	primary care
PCU	primary care unit
PCUs	primary care units
PHC	primary health care

## Introduction

A strong primary care (PC) sector is the cornerstone of every health care system but is threatened by a growing shortage of general practitioners (GPs) within the public PC sector. This affects low-, middle-, and high-income countries [1–3].

Several national and international studies have examined occupational attractiveness of and work satisfaction in PC among medical students [4, 5], GP trainees [1, 6–8] and qualified GPs [3, 6, 7, 9–17]. Studies on PC reforms mostly focus on the implementation of policy measures addressing the GP workforce crisis [9, 10, 13, 18] and interprofessional collaboration in the public health care system [19].

In Austria, public PC is mainly financed by income-related social health insurance contributions. GPs are remunerated by a mix of contact capitation and fee for service. GPs are not recognized as specialists. Only around 25% of qualified GPs work as contracted GPs within the social health insurance system, predominantly in single-handed monoprofessional practices. Roughly 75% of qualified GPs work primarily as hospitalists, locum GPs in public PC prac-

tices, or in private practices providing only a fragment of the PC service spectrum (e. g. preventive medicine) or complementary medical services (e. g. acupuncture) [20]. In this article, we refer to them as non-contracted GPs. Both, the absolute and relative number of contracted GPs declined over the last decades and there are troubles to fill vacancies [20]. On average there are 68 GPs per 100,000 population in Europe [21], while in Austria in 2020 there were 44,5 GPs per 100,000 population [22]. The reasons for this are seen as manifold and include working conditions as well as questions around financial reward or public and professional appreciation [11, 23]. Especially private physicians are less subjected to regulations while patients can receive a partial refund through their health insurance [24]. However, the specific question about recruiting GPs from the private sector and other working fields (e. g. hospitals) back into public PC has received surprisingly little attention, also internationally [10].

Recent reform efforts in Austria have focused on establishing team-based care within multiprofessional primary care units (PCUs) [24] among other things to offer attractive working conditions for GPs in public PC. These PCUs are practices of three or more contracted GPs organized as centres or networks, obliged to provide care within a multiprofessional team of allied health and social care professionals (e. g. nurses, psychologists, social workers)[24]. Multiprofessional care is only mandated in PCUs by law [24, 25]. In contrast, GPs working together in traditional single-handed or group practices are not required to involve other professions or provide a standardized range of services [24]. Qualified GPs may work in PCUs as partners or employees, but in 2020 only 24 PCUs existed in Austria [26]. In October 2022 37 PCUs were in operation. Thus, possibilities for non-contracted GPs to get to know PCUs are limited. New remuneration agreements for PCUs between social

health insurance and the chamber of physicians comprising flat rate payments, lump compensation as well as start-up financing exist in four of nine regions (October 2022) [27]. In regions without a general agreement, individual contracts are set up for each PCU. Progress in implementing this reform has been slow, in part because of a reluctance of contracted GPs to expand their practices into PCUs. Considering this and the growing number of non-contracted GPs [24], more focus should also be put on recruiting this group for PCUs.

Considering the increasing demand for GPs within the public PC system, it is necessary to plan and establish successful policy measures and specifically attract this target group to work in the newly established setting of PCUs. The aim of the study was to identify the main facilitators and barriers affecting the motivation of qualified non-contracted GPs outside the public PC system in Austria to consider PCUs as a more attractive workplace in the public PC system.

## Methods

### Design

We chose a qualitative approach to identify factors that may influence the decision of non-contracted GPs to work in a PCU. We conducted semi-structured interviews using a problem-centered approach to obtain in-depth insights into GPs' subjective perceptions and perspectives [28].

### Ethics approval and consent to participate

All procedures performed in this study were in accordance with the 1964 Helsinki declaration and its later amendments. Written informed consent was obtained from all participating GPs before their inclusion. The Ethics Committee of the Medical University of Graz granted an ethics waiver since no applied medical research is performed on human individuals. The trial was not registered as the intervention and outcomes assigned health care providers rather than patients. No individual patient data were collected or processed.

### Sample and participant selection

We selected a sample of non-contracted GPs using a combination of stratified purposive sampling and snowball sampling [29] to meet the variety of the target groups characteristics. The inclusion criteria are listed in *Additional file 1 (online)*. Using these criteria, potential participants were identified via the personal networks of two of the authors (Graz and Salzburg). The interviewer contacted candidates directly and recruited additional candidates by asking participants to nominate further GPs.

### Interview guide and procedure

The interview guide (see *Additional file 2, online*) was discussed and piloted within the study group and revised afterwards. The interview included questions concerning the general knowledge and attitudes towards primary health care as well as the recent PC reform process. Where necessary, the interviewer provided information about these topics through a prepared factsheet. Further ques-

tions addressed wishes and visions as well as requirements regarding job prospects and the attractiveness of working in a PCU. Other topics addressed were experiences during GP training and their career to-date, as well as the interviewees' personal and professional setting.

### Data collection

All participants signed an informed consent declaration on participation including information on the purpose of the study, recording, confidentiality, and publication of anonymized results. They also completed short questionnaires on personal information before the interviews.

One researcher (SB) conducted twelve interviews between March and April 2020, ranging from 28 to 66 minutes (median: 46 minutes). Because of the COVID-19 pandemic, most interviews were conducted via phone or video calls depending on the interviewee's preference. All interviews were recorded after interviewees re-affirmed consent to do so.

Interviews were transcribed verbatim and pseudonymized. Names and locations were anonymized. Transcripts and short questionnaires on personal information of the interviewees were used as material for data analysis.

### Data analysis

Transcripts were analysed using qualitative content analysis [30]. Interviews were coded using inductive categorization and along the definitions of the developed coding guide. The process was supported by the software "f4analyse 2.5.4 EDUCATION". Following the predetermined steps ensured transparency and intersubjective verifiability.

The primary researcher coded words, phrases, sentences, and paragraphs mentioning aspects associated with or influencing the attractiveness of PCUs as workplaces. A clear semantic component was set as the coding unit – the smallest section that can be coded and which defines the sensitivity. The whole interview transcript was defined as a context unit giving basic background information for the coding decision. Inductive categories were formed directly out of the transcription material. After coding three transcripts, the coding guide and category system were revised. The main categories were established by summarizing initial categories.

In a second step, contextual structuring was carried out using deductive category assignment [30]. Two researchers matched the main categories with the macro-, meso-, micro-, and individual levels (see "Theoretical framework"). They subsumed the main categories on thematic criteria into factors to get an overview of the most important aspects [31].

### Theoretical framework

We used a merged and adapted version of the level models of Mulvale, Embrett and Razavi [19], Caldwell and Mays [32] and Smith, McNeil, Mitchell, et al. [33] to understand the multidimensional factors affecting the attractiveness of PCUs. Macro-level categories concern structural, legal, regulatory, and economic conditions within the health system, policy and society, being external to influences of individual organisations or persons. The meso-level comprises associations and institutions, populations as well as the community. Conditions and influences of day-to-day practice with-

in PCUs and their teams as well as their external effects count as micro-level categories. Individual categories concern personal characteristics and experiences as well as the expectations and demands of individuals [19, 32, 33]. The taxonomy of factors is intended to help decision-makers identify anchor points at different levels [19, 33–36].

## Results

### Descriptive statistics

Twelve GPs aged between 31 and 41 years were interviewed, seven were female. Four were contacted directly, eight were recommended by (potential) interview partners. One contacted person declined, because he did not fit the inclusion criteria (vocational training not yet completed). Three worked as employees, two were self-employed, seven worked both as employees as well as self-employed. The vocational training of all interview partners working as locums did include a rotation into a GP practice. Further characteristics are displayed in Additional file 3 (online).

The qualitative analysis and clustering of categories revealed 41 factors from 101 categories. We classified 21 factors as facilitators and 20 as barriers. All factors are shown in ► **Table 1** structured among the macro-, meso-, micro-, and individual levels. All factors, and categories are shown in Additional file 4 (online).

In the following, we further describe the identified *factors* for each level by giving examples of the categories and confirm them by interview-quotations.

### Macro-facilitators

We identified two factors as facilitators on the macro level. These indicate *awareness of reform implementation* and *generational change among GPs* heading towards multiprofessional teamwork. Regarding *reform awareness*, the interviewees perceived a positive mindset and will to develop new work models in PC in general. They praised recent regulatory improvements like allowing contracted-GPs to employ other GPs as well as an increasingly open mindset for multiprofessional work models in PC i. e. PCUs. Regarding *generational change*, the new generation of GPs seems to be interested in teamwork and claims for a good work-life balance. This requires shared working conditions by contrast with single practices.

*“And the open mindset, really working as a multiprofessional team. Really as partners on equal terms – doctors, nurses, physiotherapists, psychotherapists, social worker working as a team, really together, so to say with the patient in the centre, this would be fascinating. And I have a sense, that our generation is able to do that” (A01).*

### Meso-facilitators

We identified one factor as facilitator on the meso level. *Being part of relevant networks* e. g. the Austrian Society of General Practice and Family Medicine was mentioned as a facilitator to access accurate information and facilitate the discourse and exchange to inspire for working in a PCU.

*“[...] to see, how motivated people are to get something done also for the profession. That encourages one also to do something and to improve something. [...] If you are, for example, a member of the Austrian Society of General Practice [...] then you are well connected with*

► **Table 1** Facilitators and barriers to work in a PCU as perceived by non-contracted GPs, mapped to the four levels adapted from Mulvale, Embrett and Razavi [19], Caldwell and Mays [27], Smith, McNeil, Mitchell, et al. [28]

Facilitators			
Level	Factor	Total <sup>1</sup>	Inter-views <sup>2</sup>
Macro	Awareness for reform implementation	21	9
	Generational change among GPs	17	7
Meso	Being part of relevant networks	4	1
Micro	Benefits for patients	49	12
	Organizational culture in a multi-professional team	51	10
	Attractive conditions for professional medical work	89	12
	Flexibility of working time	35	11
	Professional interaction between the GPs	20	9
	Sharing of medical responsibility	11	8
	Sharing a comprehensive infrastructure	14	7
	High quality of care and research	21	5
	Administration of the organization	17	7
	Sharing of responsibility in business management and finance with associates	7	4
Individual	Flexibility of total working hours per week	9	4
	Good work-life balance and flexibility in working time	36	10
	Employment status	13	9
	Strong doctor-patient relationship	20	11
	Training practice: Preparation and motivation for primary care	12	7
	Compatibility of family and work	1	1
	Facilitating personal contacts	5	3
	Meet the personal demand for professional development and knowledge gain	6	4
Barriers			
Level	Factor	Total <sup>1</sup>	Interviews <sup>2</sup>
Macro	Lack of strategy	54	12
	Unattractive remuneration system	75	11
	Insufficient information on PCUs	54	10
	Insufficient training for primary care (university and postgraduate)	27	10
	Requirements concerning PCUs	26	8
	Low perceived status of GPs	19	7
	Lack of clear role definition	11	5
	Contract-system with social health insurance	14	5

► **Table 1** Continued.

Barriers			
Level	Factor	Total <sup>1</sup>	Interviews <sup>2</sup>
Meso	Resistance within their medical profession	22	7
	Increasing health needs and demands of the population	18	6
	Missing exchange of experiences (national/international)	8	5
Micro	High workload	43	11
	Insufficient time per patient	25	9
	Group and team dynamics and the potential for conflicts	9	4
	Fear the loss of continuity in doctor-patient-relationship	2	1
Individual	Concerns regarding running an enterprise	60	11
	Concerns regarding starting an enterprise	14	7
	Flexibility and autonomy	28	8
	Disappointing real life experience in a PCU as a locum	4	2
	Satisfaction with individual working arrangements	12	6

<sup>1</sup> total number of occurrences over all interviews. <sup>2</sup> number of interviews, where code occurred at least once

your colleagues in the close or wider neighbourhood. It is good to meet with colleagues directly and to discuss things and that gives a bit more security" (B02).

### Micro-facilitators

We identified eleven factors as facilitators on the micro level

GPs mentioned the *benefits for patients* and themselves from the interprofessional collaboration in a multiprofessional team in a PCU. The *organizational culture* affected by flexible interaction within a cohesive and low-hierarchical team affects general job enjoyment. Working in a multiprofessional PCU-team increases comprehensiveness of care and allows easy referrals of patients to other professions within their organization. It also enables GPs to focus more on their medical core competencies. GPs expected a more structured *administration of the organization* with scheduled patient appointments leading to better workload management. So PCUs would provide *attractive conditions for professional medical work*.

"The exchange with colleagues, which you can't do in a single practice. The fact that you can discuss cases [...] I would say that everything is in one place and they don't have to go somewhere else. [...] of course, I get more feedback and can refer more sensibly if I am in exchange with the colleagues, so it would already have an advantage for me" (K11).

Alongside interprofessional exchange, the interviewees highlighted the *professional interaction between the GPs* within PCUs. This also allows *sharing responsibility* both in *medical professional demands* and in aspects of *business management and finance* (accounting, management).

"And also, to have the feeling that you are not solely responsible for it yourself. [...] He comes with his worries, with his pain, with his illness, with everything around him. You don't carry that alone as a doctor. You can split it up a bit. That's something that would calm me down inside. It would simply take the stress away" (D04).

"[...] I am still a bit afraid of self-employment, because I am not yet ready for it myself, but that is also a bit the reason why I have not yet done it, [...] I would really prefer to work in a practice with shared responsibilities" (F06).

Sharing a comprehensive infrastructure including the documentation system was another facilitator. Knowledge and information transfer and well-organized structures and care processes within the team are presumed as optimal conditions for some interviewees to perform *high quality of care and research*.

The *flexibility of working time* schedule for private issues and substitution within the team as well as the *flexibility of total working hours per week* played an integral role regarding the occupation as a GP.

"I would like it to be flexible, as I said. That it's possible to make arrangements with colleagues in case of postponements, if something spontaneously comes up. That you can take care leave without any problems" (E05).

### Individual facilitators

We identified seven factors as facilitators on the individual level

A good *work-life-balance* was the most frequently named personal need for the job option. It is associated with *flexible working time* and hours and interferes with the *compatibility of family and work*. The *employment status* can play an additional role, as more than half of the interviewees are attracted by working as an employee in a PCU. A powerful motivating factor is the development of a trustful and *strong relationship with their patients*.

"What put me off was the workload and the little flexibility you have, because you're just out there on your own [...] I find it very difficult to reconcile this with my family. If I had the option of a PCU in [place], five, six GPs who share this working load. Where [...] I can work 20 hours in a PCU. I would jump right in there" (A01).

"You need time and empathy and a good basis to talk and to trust. [...] The chemistry needs to be right in any case. Just as it is, when you are working as a family doctor. That is important for the success of the therapy, whether the patient trusts you, feels comfortable and can open up" (J10).

Some GPs expect PCUs to provide better resources to *meet their personal demand for professional development and knowledge gain*. This includes additional job opportunities (e. g. teaching), advanced training and performing research and would increase their motivation to work in a PCU.

A personal positive experience in PC during *training practice* was seen as a good *preparation and motivating* for working as a GP. Also, *facilitating personal contacts* for instance with lecturers or parents who are GPs were mentioned as experiences to foster a pro-PCU attitude.

"I certainly didn't want to do general practice before the practical vocational training in general practice. [...] I think it [practical vocational training] certainly helped me more than the internship in the hospital. So, I can only rate it positively. [...] Well, simply because the

way of working is completely different in general practice than in a hospital. [...] I like working like that. With the patients and with the contact, with long-term contact” (K11).

## Macro-barriers

We identified eight factors as barriers on the macro level

On the one hand, the GPs criticised different aspects of the public PC system. They perceived that the currently dominating fee-for-service remuneration system is insufficient to depict the spectrum of services which is needed to address the multifaceted patient needs through a holistic care approach and therefore *unattractive*. The restricted flexibility regarding care and working conditions as well as the paper chase and bureaucratic obstacles are reported as relevant reasons against working as a GP within the *contract-system with the social health insurance*.

“I was interested in offering a diverse spectrum of services in general practice. But also, to take enough consultation time and accordingly to get the money for this time. [...] It must be financially interesting, and it must become more flexible. [...] It has to be possible, to really do it together as a team. And we also need a new form of remuneration” (A01).

The *low perceived status of GPs* in general, especially by patients and colleagues, holding the status of medical specialists, stand against a decision for working in PC in general. *Insufficient training* at the university as well as postgraduate with focus on inpatient medical care results in concerns of not being well prepared for the work as a GP in PC.

GPs noted the *additional requirements* and complexity as a burden, since PCUs are much bigger organizations compared to the existing single and group practices.

“Economically, as a business leader, from an entrepreneurship view. I see myself as being able to do that, so to speak. But I lack the real expertise or experience in business management or in founding a company. So, I would like to have some support, maybe even guidance in the first few months, both in the start-up phase and in the operating phase. [...] In principle, it would be more pleasant to have a consulting institution or an authority that you can turn to” (C03).

PCUs are still relatively unknown to the interviewees. They note that *insufficient information is available* regarding this care model as well as on future policy plans. They also criticised the *lack of strategy*. Furthermore, the *lack of a clear role definition* for PC in the health system and GPs was mentioned through the description of frustrating conditions by some interviewees, which partially become noticeable on other levels. These cover low status, high patient frequencies and demands, missing patient steering mechanisms and the wish for a strong doctor-patient-partnership.

## Meso-barriers

We identified three factors as barriers on the meso level

The GPs noted *resistance within their medical profession* and with most senior GPs adhering to traditional monoprofessional work models PC structures and thereby impeding the spread of innovation.

“The main reason for this, I think, is surely because so many GPs are now close to retirement age. And those who are just not creative and young enough, they say, I won't do it now in the last five years or, yep, five years, to change my way of working so much” (B02).

They also point to *increasing health needs and demands of the population* leading to over-utilization of PC services and the general health system. One interviewee described the use of GPs through patients as a “self-service shop”.

*Missing exchange of experiences* on the national and international levels further impede change.

## Micro-barriers

We identified four factors as barriers on the micro level

*High workload* in PC was named as a dominant barrier. Reasons for this are seen in a combination of increased needs originating from demographic change, overutilization, the service-driven remuneration system and the lack of coordination of care, resulting in high patient turnover.

“In Austria, it's [primary care] marked because it's very stressful. Very, very overloaded. Mostly in general practice, it is simply a job that really runs at the limit. And that's not necessary. [...] It becomes too much and often you [GPs] are not able to bear this with a normal physical and mental state. And I think that is simply unattractive. Why should I expose myself to that if I have a nicer working option?” (A01)

Consequently, this leads to the impression that there is *insufficient time per patient* and GPs question, whether this would be different in a PCU.

“And I think everyone deserves the respect to get the time he or she needs. Because in crowded practices it is not possible to do things the way I would like to do them myself” (C03).

With focus on PCUs some GPs mentioned concerns regarding *complex group and team dynamics and the potential for conflicts* between the associates and within the team. Because of expanded opening hours some feared the *loss of continuity in the doctor-patient-relationship*.

## Individual barriers

We identified five factors as barriers on the individual level

*Concerns regarding starting and running an enterprise* were voiced. These contained entrepreneurial spirit – also mentioned as “braveness” and having the start-up capital for the founding phase. The necessary economic and legal understanding for running a business, organizational and leadership skills were thought to be overwhelming.

“Because I don't want to carry this enormous economic risk. So, I would prefer to work in a PCU, so you are not alone, and you remain flexible. [...] You can also work part-time. If you have an office. It's easier to reconcile that with family life” (K11).

As mentioned before, anticipated restrictions due to the contract with the social health insurance companies were considerable counterarguments. Since *flexibility and autonomy* were mentioned as very valuable, restrictions in terms of freedom of care, income or the possibility to make the final decisions in the team are important barriers against working in a PCU.

“[...] I have actually built up a network. And that, that just fits me and how I see medicine. And that's why I decided to go this way. [...] And how I like to have my people treated. [...] I can't imagine doing it any other way now” (J10).

Two GPs reported a *disappointing real-life experience in a PCU*, because they experienced no difference in their work as locum between a PCU and other GP practices. Nevertheless, they mentioned

that the short-term character of their locum work may have had an impact on their role within the PCU-team.

Half of the GPs also mentioned that they had a high *satisfaction with their individual arrangements*, tailored perfectly to the needs of their professional and private lives, often feeling no urge to change.

## Discussion

Following the commonly used model of macro-, meso-, micro-, and individual levels, this qualitative study was the first that explored facilitating and inhibiting factors concerning the attractiveness of PCUs as workplace for non-contracted GPs. Facilitating factors include the prospect of teamwork, a good work-life balance, inter- and intra-professional collaboration that allows the sharing of responsibilities, fruitful exchange, diversity of tasks, and a focus on medical core competencies including patient-centred care. Barriers concern the conditions and demands around the PCU founding process and enterprise running as well as remuneration models. There is the perception of a lack of political will to establish PCUs, little knowledge on the care model and high resistance within the GP profession. Barriers and facilitators can sometimes apply for the attractiveness to work in a PCU as well as in a single or group practice. To facilitate the identification of barriers that are specific towards PCUs, a categorization into macro-, meso-, micro- and individual- level was performed.

### General aspects on working as a GP in public PC

Many identified barriers like high workload and bureaucratic burden [1, 2, 7, 8, 10, 13], weak PC role and status of GPs [2, 5, 9] as well as inadequate remuneration [2, 7, 13] have been previously described and address the job as a GP per se. Together with the high demand from patients and the public reported here and in other studies [2, 13], these factors result in high pressure on contracted GPs [9, 13, 37]. Our results go in line with international findings acting as demotivational factors for GPs to start or keep working in PC. Since work-life balance, flexibility, and autonomy in the organization of work, a strong doctor-patient relationship and the care approach corresponding with the results of other studies play a crucial role regarding job attractiveness, current working conditions weigh heavily for qualified GPs against becoming a contracted GP [1–3, 5, 7, 10, 13, 26].

### PCU specific aspects

Facilitating working conditions for non-contracted GPs in PCUs with focus on flexibility of working time and total working hours per week, good work-life-balance and a diverse spectrum of services were also named by Franczukowska, Krczal and Braun [26], who interviewed GPs that started PCUs. Nevertheless, non-contracted GPs seem to prefer high personal flexibility and self-actualization. This individual mindset may compete with a regulated set of services in public PC, low hierarchical structures, and interprofessional collaboration as the core element and facilitator of the team-based and holistic concept of primary health care (PHC).

As anticipated by the interviewed GPs, Simon, Forde, Fraser, et al. [7] report that a supportive team could mitigate the burden and result in a more enjoyable working environment. In detail, infra-

structure, staffing, and teamwork could help to manage high workload [1, 2, 7, 10, 13] and provide more time for individual patient consultations [3, 9, 10, 13] with a holistic approach [2, 3, 13]. Furthermore, the teamwork in PCU enables inter- and intra-professional collaboration as well as information exchange, which are both mentioned positively by the interviewed GPs and corroborated by several studies as driving factors for the job attractiveness [3, 13, 38]. Franczukowska, Krczal and Braun [26] bring evidence for these attractive working conditions as well as reduced bureaucratic burden and appreciation by patients. Nevertheless, the number of PCUs is small and little information is available, so also attractive working conditions seem vague and unseizable for the non-contracted GPs.

The much more specific barriers for working in a PCU identified in this study – perceived or expected – correspond with reported challenges of Austrian PCU founders [26]. Corresponding to this study, these results indicate that existing structures, risks (e. g. economic, financial) and uncertainties for founding and running a PCU are additional burdens for non-contracted GPs. Many GPs miss essential management competencies [3, 5, 18] and see that in addition to the mentioned founding requirements as preventive barriers for starting a PCU. Adequate basic education and vocational training seems to play a crucial role in getting GPs ready for entering PC as well as starting and working in a PCU. Leadership training programs for qualified GPs could be one of various support measures but would need to be combined with other additional capacity building measures like onboarding programmes [10, 39]. Support structures like funding and consultation on business management and specific regulations could reduce the risk and burden of founding a PCU and facilitate the journey of PCU establishment. Training on entrepreneurship, management, and team-based care as well as onboarding programmes could equip qualified GPs with essential skills for running a PCU.

### Primary care reform process in Austria

Since GPs are the ones putting reform into practice, the spread of innovation would need participation of themselves as stakeholders in a PC reform process especially regarding the implementation of PCU. Active involvement in policymaking processes for example through regional consultation rounds or community boards would convey trust and appreciation. It proactively promotes multiprofessional PC structures (i. e. PCUs) and the role of GPs within them, which could lead to increased population awareness [18, 38]. The implementation of patient steering mechanisms could be a pivotal step to further strengthen the key role of PC within the health system and of GPs [18].

Macro-level structures in the health care system, uncertainties due to policy reform and the lack of political commitment on reform goals and measures currently inhibit policy innovation as reported in other studies [2, 3, 9, 18, 19, 33]. However, due to the strong interdependence of factors, adaption of these structures could relieve the burden of GP who want to found a PCU [38, 40, 41]. Together with sufficient information on policy measures [42], a clear vision for the future structure of PC could reduce uncertainties for GPs and increase interest in working in a PCU.

Concerns regarding current remuneration schemes in public PC in general are discouraging for performing multi-professional and

holistic care in PCU. They need to be addressed by proactive information on new models specifically implemented for PCUs. Regional contracts should be rolled out to all nine regions to increase transparency as well as financial security and foster multiprofessional teamwork in PCUs. A well-known remuneration scheme appropriate to the role and workload [3, 7, 43] and focused on function and competence instead of profession and services could further increase the attractiveness of working as a GP in a PCU and facilitate interprofessional collaboration in their multi-professional teams [37, 43].

The workforce change in PC and the shift towards interprofessional collaboration in multiprofessional teams in PCUs requires task sharing between GPs and other professions. This may threaten GPs' inter- and intra-professional status and could be met by resistance within the profession as shown internationally during role profile alteration of different professions [33, 34, 38–40]. It is thus crucial for the PC reform to address the relationship between the professions and clearly define the roles, functions, and responsibilities of the team members. Awareness for the benefits of teamwork for the patient among the health professionals as well as a shared vision of the role of PC within the health system are an important foundation for fostering multiprofessional PCUs [17, 35, 37, 38].

Espinosa-González and Normand [18] confirm that the expansion of acquired competences during the specialty training for family medicine and the increase of training quality attracts medical students, contributes to public recognition of PC as a scientific discipline, and improves professional status within this population and in general. In the long run, it could enable a sustainable change, to attract students to PCUs early and prepare them adequately for work in PCUs before they leave the system and lose connection.

### Study strengths and limitations

One limitation of this study is the limited transferability to other health systems due to the specific context to Austria, although we think that many of the identified barriers and facilitators could also apply to other health systems. The purposeful sampling method resulted in a small and selective sample, which allowed us to explore GPs' attitudes in-depth. Although the sample size was rather small, we could not identify additional factors from the latest interviews. Since the qualification as a GP is also a general license to practice medicine in Austria, some qualified GPs may have chosen this training for a career option other than public PC. However, PCUs may offer new and attractive working conditions, which evolved after their initial career choice. Since the specific question about recruiting the PC workforce from other sectors (e. g., from hospitals and private practice) into public PC has received surprisingly little attention, this study makes a relevant contribution to future workforce planning in PC. The private sector in health care is gaining momentum in many countries, so this approach could provide ideas for further research both in Austria and internationally.

A strength of the study is that we interviewed GPs from different regions and settings, which should allow a broader view on the variety of factors affecting the attractiveness to work in a PCU. The qualitative design enabled openness toward yet unexplored facilitators and barriers of the heterogeneous population of non-contracted GPs. Semi-structured interviews with a problem-focused approach allowed flexibility during in-depth exploration of the GPs

attitudes. Following the methodical process of qualitative analysis ensured high transparency and reliability for other researchers. The novelty of the concept of PCUs in Austria and therefore limited knowledge and experience of GPs thereof could act as a limitation. The identified barriers and facilitators derive often from perceptions or anticipations which are not necessarily experienced in reality. On the other hand, facilitators and barriers do not have to be based on objective facts but can be found as well in prejudices or misinformation. Therefore, the fact that something is seen as a barrier by a potential candidate makes it a barrier and justifies addressing it. Compared to previous studies on facilitators and barriers as well as motivators, this study provides a broader perspective following a multi-level model combined with innovation implementation and policy reform approaches.

### Conclusion

Overall, the facilitators and barriers for non-contracted GPs to work in PCUs are consistent with factors that are known to be relevant for students, trainees, and contracted GPs to work in public PC. Theoretically, PCUs could meet many demands of the non-contracted GPs regarding work in public PC. Nevertheless, the perceived general barriers for working as a GP in public PC are projected on PCUs as well and this new model even adds more uncertainties because PCUs are not yet well established. Requirements for founding and running a PCU as well as a perceived lack of entrepreneurial skills act as additional burdens to the work as a GP and therefore as barriers for PCU. To address this, a multi-faceted approach is needed. Supportive measures like financial support, consulting services as well as training on entrepreneurship, management, leadership, and team-based care may help to reduce the risk and burden of founding and running a PCU. It is essential to tear down barriers like unattractive remuneration and unmanageable workload in public PC by implementing modern remuneration schemes and patient steering mechanisms. Currently existing attractive working conditions in PCUs must be promoted. All stakeholders should commit to a common strategy to strengthen public PC and communicate accordingly. These fundamental steps during the PC reform process will be necessary to attract non-contracted GPs to establish multiprofessional PCU and ensure the GP workforce required for a well-functioning public PC system.

### Competing interests

All authors declare that they have competing interests, in particular because of membership in professional associations.

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## Conflict of Interest

Sarah Burgmann is employed at the Austrian National Public Health Institute with focus on the establishment of an Austrian Primary Health Care Platform since July 2020. The study protocol was created before the start of the employment as well and execution of the interviews for this study.

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