Wich positive factors determine attractiveness to General Practice and retention in Clinical Practice ? ”

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UNIVERSITE BIOLOGIE BRETAGNE SANTE LOIRE

UBO Université de Bretagne Occidentale

THESE DE DOCTORAT DE

Universiteit Antwerpen

L'UNIVERSITE
DE BRETAGNE OCCIDENTALE
COMUE UNIVERSITE BRETAGNE LOIRE

ECOLE DOCTORALE N° 605
Biologie Santé
Spécialité : *Epidémiologie, Analyse de Risque, Recherche Clinique*

EN CO-TUTELLE AVEC L'UNIVERSITE D'ANVERS

Par
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Quels facteurs positifs déterminent l'attrait vers la Médecine Générale et le maintien dans la pratique clinique?

Which positive factors determine attractiveness to General Practice and retention in Clinical Practice?

Thèse présentée et soutenue à Brest, le 5 juillet 2018

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Dr Bernard LE FLOCH

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MeSH Terms

Adult;

Career Choice;

Career Mobility;

Family Practice;

General Practitioners;

Health care system

Humans;

Job Satisfaction;

Physician;

Primary health care;

Delphi;

Literature review.

Qualitative Research

Chapter 1: Introduction

Why study job satisfaction in General Practice?

In 2002, French GPs, angered by the bullying of political decision-makers, decided on strikes and demonstrations. The culmination of these months of displeasure was a demonstration of several thousand doctors in Paris. I participated in this event, with many colleagues. It was an opportunity to demonstrate, but also to discuss on the General Practice with confreres from all over France.

Installed in General Medicine in the small town of Guilvinec, in Brittany, I have always been enthusiastic about our job. In Paris, in 2002, I heard many doctors talk about their profession and their pleasure and pride in exercising it.

Several years later, when the media spoke only of the miseries of General Medicine, I said to myself: "Why not study job satisfaction in General Medicine?"

In this introduction the history of general practice is shortly delineated followed by a description of the current problems with the general practitioner's supply. Europe and especially France are faced with an ageing population. This has an influence on patient's health care needs (1).

All policy measures are based on negative factors influencing why physicians are getting burnout and leaving the profession. There is a lack of knowledge on factors keeping general practitioners (GPs) in the profession. Finally the aim of the research is described and the research questions are formulated

In France, in 1958, the government created the Hospital-University Centres (CHU) that brought together the excellence of care, research and teaching in medicine. In this reform, general medicine was ignored as a discipline of its own. At the present time, the world has changed. Currently, the vision of health has progressed and primary care has shown its importance (2). An effective health system must be based on primary care (3).

But on the other hand, the General Practice workforce is decreasing (4). Burnout and dissatisfaction are widely studied to explain this disaffection. Students said that about General Practice "too dull and monotonous, not practically challenging, too many "social" patients, too much paperwork and administrative work" (5).

Yet many GPs are satisfied with their job. The purpose of this thesis was to study the positive factors that make physicians satisfied with their profession.

Historical perspective of General Practice

Primary health care (PHC) is a concept originally developed in the UK in the 1920s (6) and defined by the WHO declaration of Alma Ata 1978. "*The International Conference on Primary Health Care called for urgent and effective national and international action to develop and implement primary health care throughout the world*" (7).

One of the first definitions of General Practice was developed by the Leeuwenhorst group in 1974: "*The general practitioner is a licensed medical graduate who gives personal, primary and continuing care to individuals, families, and a practice population, irrespective of age, sex and illness. It is the synthesis of these functions, which is unique*" (8).

In 1991, the first WONCA definition of General Practice was similar: "*The general practitioner or family physician is the physician who is primarily responsible for providing comprehensive care to every individual seeking medical care and arranging for other health personnel to provide services when necessary. The general practitioner is a generalist who accepts everyone seeking care, whereas other health providers limit access to their services on the basis of age, sex or diagnosis*".

The next WONCA definition of General Practice was published in 2002: "*General practice is an academic and scientific discipline, with its own educational content, research, evidence base, and clinical activity, and a clinical specialty orientated to primary care*". The text highlighted a new definition of the discipline, with the role of the general practitioner, and the core competencies required (2).

This definition was revised in 2005 (9). *"General practitioners/family doctors are specialist physicians trained in the principles of the discipline. They are personal doctors, primarily responsible for the provision of comprehensive and continuing care to every individual seeking medical care irrespective of age, sex and illness. They care for individuals in the context of their family, their community, and their culture, always respecting the autonomy of their patients. They recognise they will also have a professional responsibility to their community. In negotiating management plans with their patients they integrate physical, psychological, social, cultural and existential factors, utilising the knowledge and trust engendered by repeated contacts. General practitioners/family physicians exercise their professional role by promoting health, preventing disease providing cure, care, or palliation and promoting patient empowerment and self-management. This is done either directly or through the services of others according to health needs and the resources available within the community they serve, assisting patients where necessary in accessing these services. They must take the responsibility for developing and maintaining their skills, personal*

balance and values as a basis for effective and safe patient care. Like other medical professionals, they must take responsibility for continuously monitoring, maintaining and if necessary improving clinical aspects, services and organisation, patient safety and patient satisfaction of the care they provide."

The most efficient health systems are based on General practice.

On one hand General Practitioners (GPs) leave clinical practice and the GP workforce is declining all over the world (4). On the other one the most efficient health systems looking for cost effectiveness for the global population, are based on General practice. Research showed as evidence than primary health care with general practice improved equity and better cost in terms of better population health outcomes (2,3,9).

The Organisation for Economic Cooperation and Development (OECD) also emphasized on the central role of GP, especially in the different European health care systems (1,3).

The decline of the general practice workforce

The General Practice workforce is in decline in the World

Recruitment and retention in Europe

The OECD countries are facing a shortage of general practitioners because of declining physician population and disinterest of students for this speciality (10). This problem is real in a lot of OECD countries. In Canada, the percentage of students selecting family medicine as their first choice in the annual Canadian Resident Matching Service (CaRMS) program fell from the 40% levels of the 1980s and most of the 1990s to a new low of 24% in 2003 (4). Large administrative obligations and the short-duration, high-volume patient visits required to remain financially stable makes GP an undesirable practice model and a bureaucratic burden.

The European Commission projects the shortage of health personnel in the European Union to be 2 million, including 230 000 physicians and 600 000 nurses, by the year 2020, if nothing is done to adjust measures for recruitment and retention of the workforce (11).

Working in the framework of a European Commission tender in 2013, Barriba et al. identified and analysed effective strategies for the recruitment and retention of health professionals and focused on physicians and nurses (12). The authors expanded on the WHO´s ´Global Policy recommendations on increasing access to health workers in remote and rural areas, through improved retention´, published in 2010 (13). From a series of case studies the authors identified a number of themes including, among others, attracting young people to health care especially in underserved areas, providing training education and other opportunities for a life long career and providing supportive working environments. The types of recruitment and retention strategies that were distinguished may be very instructive for future policy use.

The General Practice workforce is in decline in France

The National Council of the Order of Doctors published in October 2017, the 11th Atlas of the medical demography, which figures the number of doctors in France (14).

Compared with the counts published in 2007, the Atlas 2017 offers a ten-year vision of the demographic evolution of doctors in each of the French territories.

The lessons learned from this comparison are numerous: a drop in the number of physicians in regular activity, feminization of the profession, generational renewal. While health remains one of the first symptoms of territorial fragility, this comparative study shows that the territories suffering from difficulties of access to care are also affected by other weaknesses: socio-economic context, spatial planning, low coverage digital, determinants of population health. Increase in total number of physicians but decline in regular activity

As of January 1, 2015, France had 216,700 active physicians under the age of 70, which is a historic maximum. From 1991 to 2005, growth was particularly strong (1.2% per year on average). It was superior to that of the population. The average number of physicians per capita thus increased during this period (15). As of January 1, 2017, 290,974 physicians are registered on the roll of the Order. However, among these physicians the proportion of professionals in regular activity has fallen by 10 points since 2007 to reach 68% in 2017, ie 197,859 physicians (14).

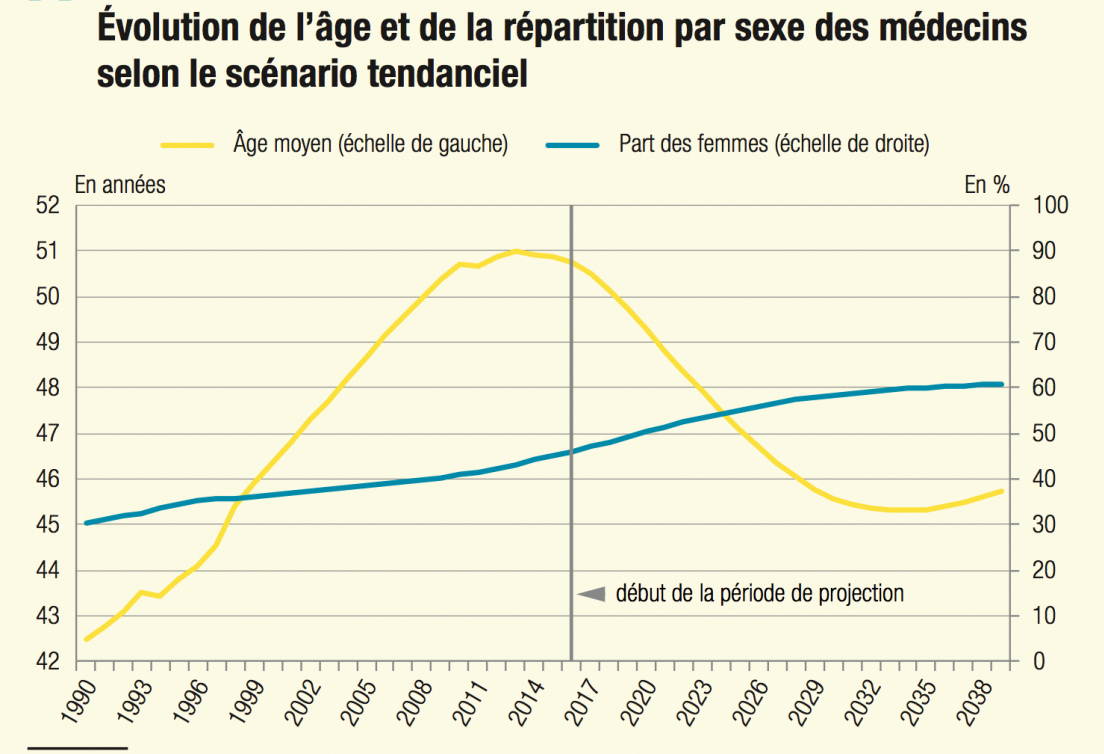
The number of practicing doctors is expected to be almost stable between 2016 and 2019, then to increase again in 2020, assuming the current behaviour of doctors and the legislation in force. The number of general practitioners would evolve less than those of specialists. The

specialties benefit from doctors graduated abroad. The exclusive liberal exercise is expected to continue its decline, in favour of the salaried or mixed exercise.

Feminization and the renewal of generations of the population of liberal doctors should lead to a decrease in the supply of care greater than that of the workforce (15). With the aging of the population, care needs are expected to increase more rapidly than the population. The average duration of a work in a week in 2012 was 57 hours, with disparities among practitioners (16).

Strong feminization of the profession: women now represent 47% of doctors in regular activity in France against 38% in 2007. (Table 1)

Table 1: Evolution of age and gender distribution of doctors in France. (Ordre des Médecins 2017)



France is affected by significant territorial disparities within all regions, with the exception of Ile-de-France, where each department is losing its workforce. Compared to population changes, the figures for 2017 also show that territorial disparities may be more serious than they appear: in 45 departments the general population is increasing, but the number of doctors is decreasing.

A worrying drop in the number of GPs

In the past, the Order had already alerted the decline of general practitioners whose number had dropped to 88 886. In 2017 the National Council of the College of Physicians notes a new fall of practitioners with 88,137 generalists all modes of combined, even as the national population increases. This drop in the number of generalists is all the more alarming because it affects almost all of our territories; it is found in 93 French departments. According to the National Order of Physicians, the definition in 2012 of deficit areas by the ARS and the measures that have been taken has had no impact. Almost all the facilities of general practitioners have been outside these areas.

The CNOM has seen a steady increase in foreign doctors who have been in regular activity for 10 years. In 2017, there are 22,619 doctors with a foreign diploma in regular activity. This represents 11% of the regular activity in France in 2017. The lack of GPs is a critical point for Health system.

Why are GPs leaving the General Practice?

A lot of researches were published in USA, Canada, Australia, Europe and France about the reasons why GPs are living primary care (4). Theses researches focused on dissatisfaction. The income in General Practice, apart into Great Britain, is lower than other specialties. GPs complain of heavy workload, high-levels of mental strain, complex managing care, difficult expectations of patients and administrative tasks (17–19). These reasons lead to burn out (20–22). The reasons for not being satisfied are well studied and well known, but nevertheless, many doctors are satisfied, choose General Medicine, and remain in their profession.

Focus on satisfaction.

Until now research was focused on negative reasons for leaving Practice (21,23). Nevertheless politics and strategies based on these studies were not successful to improve capacity. Taking care about positive concepts that could influence GP's attractiveness and retention in clinical practice was never achieved. Focusing positively on factors of satisfaction keeping General Practitioners (GPs) in their profession may increase the likelihood of adequate GP provision in the future. This was the first research hypothesis we wanted to address in this study.

The European General Practitioner Research Network (EGPRN) is a network for research in General Practice that has designed a research agenda. One item on this agenda is the design of research exploring satisfaction among GPs across Europe. Consequently, the

EGPRN decided to initialise a research into the satisfaction among GPs throughout Europe (24).

Lack of knowledge

Some of these items could be apply to the job of GP, but they have some specificity. The major part of the literature focused heavily on the material working condition of GPs (25). These studies were almost exclusively based on surveys which used declarative questionnaires, such as the Warr-Cook-Wall job satisfaction scale, which is not specific to General Practice (26).

The aim of the research and the research questions

A rapid review of the literature showed that it was necessary to study in depth the factors of job satisfaction of general practitioners.

This thesis was a research on GPs' job satisfaction. The objective of this thesis was to explore positive factors that might attract and retain GPs in clinical practice within Europe.

- Which positive factors give General Practitioners job satisfaction in their profession?
- Which positive factors did attract GPs in their career in practice?
- Which positive factors are associated with a high level of satisfaction and persistence in the profession?
- Which are the topics, issued from the EGPRN Womanpower group, operational for stakeholders to enhance the GP workforce?
- Which positive factors determine the attractiveness of General Practice and retention in Clinical Practice?

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Chapter 2: Method

Overview

This chapter describes the different research methodologies used in this thesis. Most research until now was focused on negative factors influencing GP workforce overall in the world. A first literature review was conduced, which showed that the concept of job satisfaction in General Practice was poorly studied mostly with surveys hardly going in depth of the concept. It appeared necessary to conduce a complete research in Europe on this topic with strong methodology and strong qualitative research.

The European General Practice Research Network (EGPRN) has supported this project.

Research question:

The objective of this thesis was to explore positive factors that might attract and retain European GPs in clinical practice.

- Which positive factors are associated with a high level of satisfaction and persistence in the profession?
- Which positive factors determine the attractiveness of General Practice
- Which positive factors determine the retention in Clinical Practice?
- Which are the topics, issued from the EGPRN Womanpower group, operational for stakeholders to enhance the GP workforce?

Procedure of the thesis

A step-by-step method was adopted.

To achieve the research goals, the following methods were used:

- A systematic review of literature focused on the emergence of an exhaustive mapping of the positive factors, extracted from literature that could enhance the General Practice workforce. The outcome was the emergence of an exhaustive mapping of the positive factors, extracted from literature, which could enhance the General Practice workforce.

- Qualitative researches studies throughout Europe were undertaken to find the value added by GPs to these positive factors. The data was analysed using a qualitative method. The aim

was to explore in depth the positive factors supporting the retention of General Practitioners (GPs) in clinical practice throughout Europe, and add specific positive factors to the others found in the review.

- Qualitative research to bring research results to policymakers.

Stakeholders have a conceptualisation of satisfaction factors for General Practice that differs from those of literature and in practice GPs. Which are the topics, issued from the EGPRN Womanpower group, operational for stakeholders to enhance the GP workforce? A two Delphi rounds study was conducted in France to reach consensus on the topics list. Then a nominal group (NG) by mail was performed with the same experts to hierarchize those items and to formulate action points for policymakers.

Context

This is a description of the context of this thesis.

The European General Practitioner Research Network

The European General Practitioner Research Network (EGPRN) is an organization of general practitioners and other health professionals involved in research in primary care and family medicine. Its aim is to provide a suitable setting in which to discuss and develop research in primary care, to foster and coordinate multinational studies, to exchange experiences and to develop a validated scientific basis for general practice. In addition, EGPRN also offers general practitioners a chance to meet foreign colleagues prompting local and international research collaboration (1).

EGPRN offers members the opportunity to meet researcher colleagues by organising meetings twice annually, prompting local and international research collaboration amongst researchers in family medicine. At such meetings research papers are presented and discussed at length, in order to allow participants showcase and improve their research projects.

“WoManPower” a collaborative research

The European General Practitioner Research Network (EGPRN) designed a research agenda (1,2). One item on this agenda was the design of research exploring satisfaction among GPs across Europe. The aim was to conduce a research on concepts and practical arrangements for a good work-life balance for GP's. Which characteristics are associated with a high level of satisfaction and persistence in profession? Which policies could be suggested to guarantee an efficient future allocation of GP workforce? Consequently, the EGPRN decided to initialise a research group to explore the satisfaction among GPs throughout Europe.

Womanpower

The European General Practitioner Research Network (EGPRN) designed a research agenda [19]. One item on this agenda was the design of research exploring satisfaction among GPs across Europe. The aim was to conduce a research on concepts and practical arrangements for a good work-life balance for GP's. Which characteristics are associated with a high level of satisfaction and persistence in profession? Which policies could be suggested to guarantee an efficient future allocation of GP workforce? Consequently, the EGPRN decided to initialise a research group to explore the satisfaction among GPs throughout Europe.

First, a hypothesis of the group was that the feminisation of the GP workforce could have an influence on the future GP numbers. Therefore, the research team wanted to pay attention at WOmen, Men, and MANPOWER in this study, which was consequently named “WoManPower”.

This new hypothesis based on the research of positive factors could lead to undiscovered politics and strategies for the near future. This is the aim of this doctoral thesis, which is the main part of the European General Practitioners Research Network (EGPRN) collaborative project “WoManPower”.

The forming of a multinational research team started in Plovdiv (Bulgaria), then in Zurich (Switzerland) during the EGPRN meetings in 2010 with researchers from Belgium (University of Antwerp), France (University of Brest), Germany (University of Hannover) and Israel (University of Tel Aviv), Poland (Nicolaus Copernicus University) and Bulgaria (University of Plovdiv). In 2011 and 2012, researchers from Finland (University of Tampere) and Slovenia (University of Ljubljana) joined the team (3).

2. The theoretical lens

Job satisfaction definitions

Definitions of job satisfaction are multiple and changes over time, according to social context. Even today, it is difficult to define this phenomenon in a simple and consensual way. The most often definition are issued from industry and are not specific of the health providers and of the GPs. High physicians' job satisfaction benefits their physical and mental health and well-being and relates negatively to burnout, intention to leave, and job or career turnover (4–6).

Locke definition

One of the definitions most often given is Locke: "Job satisfaction is a pleasant or positive emotional state resulting from an individual's assessment of his or her work or work experience" (7).

Job satisfaction therefore arises from the worker's analysis of his / her job:

- Is it satisfactory or not?
- Is it a positive relationship or not?

This analysis is based on an ideal of preference forged by its experiences and values. Furthermore, job satisfaction theories overlap considerably with theories explaining human motivation. The most common and prominent theories in this area include: Maslow's needs hierarchy theory and Herzberg's motivation-hygiene theory. The assessment of satisfaction is therefore based on what it has had, what it has and what it could have.

The first theories of the content of work satisfaction were centred on the individual (his personality, disposition, traits, values).

Maslow's theory of needs

Among these theories, Maslow elaborated the theory of needs for job satisfaction.

Developed in the 1940s, this theory hierarchizes five needs, which when satisfied are no longer motivating factors: (8)

- Physiological needs: are none other than survival needs, eating, drinking, breathing, reproducing;

- Security needs: living without fear, feeling safe from dangers;
- The need to social relations; To give and receive affection, to feel integrated into a group;
- The needs for esteem: feeling recognized, approved, esteemed; Suggest the esteem of others and self-esteem and integrate the taste for power;
- The needs for self-realization or self-actualization: desire to progress, to flourish;
- The appeal to creativity, to the sense of innovation.

Herzberg's motivation-hygiene theory

Frederick Herzberg's motivation-hygiene theory suggests that job satisfaction and dissatisfaction are not two opposite ends of the same continuum, but instead are two separate and, at times even unrelated, concepts (9).

- "Motivating" factors like pay and benefits, recognition and achievement need to be met in order for an employee to be satisfied with work.
- On the other hand, "hygiene" factors (such as working conditions, company policies and structure, job security, interaction with colleagues and the quality of management) are associated with job dissatisfaction.

The Warr-Cook-Wall job satisfaction scale

Peter Warr, John Cook and Toby Wall built this scale in 1979 (10). It covered work involvement, intrinsic job motivation, higher order need strength, perceived intrinsic job characteristics, job satisfaction, life satisfaction, happiness, and self-rated anxiety. Eight scales relevant to the quality of working life were pooled from studies about male manual workers.

This scale was often used in the studies found in the literature, but these questionnaires did not examine in depth the aspects that GPs might find satisfying in their profession. We did not found a specific scale on GPs' job satisfaction in the literature.

First phase: literature review

The aim of the literature review was to describe what is already known/available on what GPs consider positive aspects in their profession. The research question we wanted to

answer was: “Which are positive factors for attractiveness and retention in Family Practice?” (11,12). The systematic literature study was necessary to identify which figures on positive factors keeping GPs in the profession were already available.

The EGPRN research group focused the systematic literature review on the GP job satisfaction. “Job Satisfaction” is a MESH term (Medical Subject Headings), which is defined by “a personal satisfaction relative to the work situation”. It was introduced in 1976 in the US national health library. The research team chose the term “Job satisfaction” because it was the best possible MESH term to describe positive factors at work. The use of a MESH term was efficient, because it included all possible synonyms.

The database-specific search included the following equitation: (("Family Practice"[Majr] OR "General Practitioners"[Majr] OR "Physicians, Family"[Majr]) AND ("Career Choice"[Majr] OR "Career Mobility"[Majr])) AND hasabstract[text] AND ("2000/01/01"[PDAT] : "2014/12/31"[PDAT]) and (("Family Practice"[Majr] OR "General Practitioners"[Majr]) OR "Physicians, Family"[Majr]) AND "Job satisfaction"[Majr] AND hasabstract[text] AND ("2000/01/01"[PDAT] : "2014/12/31"[PDAT]).

Those equations were adapted for Cochrane and Embase according their own specifications. The bibliography of all articles was checked in order to find additional references.

The search was limited to articles published between January 1, 2000 and December 31, 2014.

In addition to the database search, the research group in the EGPRN network identified grey literature. We also conducted a search on the websites of organisations concerned with manpower in these countries.

The research team assessed a quality appraisal to select the articles. This quality appraisal form was adapted from the quality appraisal form of the CASP (13,14).

Next two research teams (France, Belgium) performed a full-text screening on content and quality. Because of the large diversity of the type of studies we assessed the quality of the articles with the criteria described in table 1.

Differences of opinions at each step were dealt with by discussion between the two researchers or by referral to the whole study group.

Table 1: Quality appraisal.

Did this article give an answer on the research question?
Was the research question clearly focused in the article?
Was the methodology appropriate?
Was the recruitment appropriate and representative?
Did you trust the results?

Data extraction

Two independent researchers selected eligible articles on title and abstract. Articles were considered relevant if the main focus was on positive factors related to general practice. Only publications in English, Dutch, German and French were included.

In a second step the remaining abstracts on positive factors on attractiveness and retention in the profession. Articles were also excluded if they had no real research design (i.e. having non-formal or informal introduction, method result and discussion format). We also excluded articles on research performed in settings that were considered not relevant for the European context: studies performed in non-industrialised countries, concerning other specialties, focusing on negative factors, and specific populations. Articles focused only on specific national health systems or only on students or trainees setting were also excluded.

Data analysis:

Two researchers analysed the data from the selected articles using a mixed method synthesis in which the findings of qualitative and quantitative studies are aggregated at the study level (15,16). They employed a thematic analysis process with the intention of capturing any relevant issues to the research question. These relevant issues were labelled and subsequently organised into subthemes and overarching themes.

For the quantitative research based on questionnaires on to satisfaction with different issues related to GP practice, only the items for which the mean satisfaction score was 60% (different scales were used, so we recalculated this in a percentage of the total) or above were included. The findings from the different studies were pooled to give an indication of

evidence lies to know if a factor is positive for a GP. For the qualitative research, the relevant results were the themes described in the research The two researchers adopted a standardised coding file

The review protocol was developed according to the PRISMA guidelines (11,12). Four researchers performed the entire process. The whole European team validated the protocol. During the first workshops, analyse was finalised with the whole team. The members of the collaborative study performed an additional search in the local journals. These publications were also assessed on quality and included in the literature study.

Second Phase: descriptive qualitative researches

The advantage of choosing a qualitative method

The qualitative approach allows the description of the exploration fields (15). Qualitative studies help to understand the little-explored phenomena in their context. It allows you to explore processes in a given context (17,18). It allows you to explore processes in a specific context. As literature did not show an overall view of GPs' satisfaction in their profession, further research on positive factors for retaining GPs in practice could help to fully explore this question (17). The research group conduced qualitative researches in each countries involved, according to COREQ (18–20).

The interview guide

The interview guide was built for the research questions focused on characteristics associated with a high level of satisfaction in the profession (21). The interview guide is described in table 2.

- Which factors did attract GPs in the career or did help to keep GPs in practice?

- Which characteristics are associated with a high level of satisfaction and persistence in the profession?

The guide only focused on characteristics associated with a high level of satisfaction in the profession.

Table 2: The interview guide

Topic 1	In the life of a General Practitioner, there are pleasant experiences. Could you tell us about one?
Topic 2	What makes you happy in the profession of General Practitioner? What motivates you to go to work every morning? Factors related to the job content
Topic 3	Factors concerning a satisfying practice organization, location, collaboration
Topic 4	What makes for work-life balance especially where the family is concerned?
Topic 5	The significance of the GP's residential environment?
Topic 6	Coping strategies to overcome difficulties

Data collection techniques

The first interviews were completed in the Faculty of Brest, in France. The aim was to pilot the first in-depth topic guide.

It was a passionate challenge to conduct a study with so much countries and different languages and cultures. The interpretation of the data was a linguistic and cultural problem in eight countries, but this was limited to the enthusiasm of the group, the face-to-face workshops during the meetings and the significant number of emails and phone discussions during the research process.

The eight countries involved conducted their own national researches and performed data collection using semi-structured interviews or focus groups depending on feasibility and local context. The interview grid was developed during the research meetings. In each country the same main questions were used, sometimes with certain country-specific issues included.

Focus groups and individual interviews

The qualitative researches were conducted by semi-structured interviews or focus groups with GPs (21,22). The aim was to find new topics, concepts and ideas in this population that were not found in the literature (20,23).

The most well known methods for data collecting in qualitative research are in-depth interviews, case studies, participatory observation and focus groups (18,23,24). Within the welfare system and primary health care, more and more qualitative research is being conducted using the focus group as data collection method. Focus groups are group interviews led by an experienced moderator (21,23,25). They are usually made up of homogeneous groups with ideally 6 to 8 participants. They hold interactive discussions and contribute comments from their own experience on the specific topics that form the subject of the research. A focus group makes use of structured, interactive discussions as a means to explore the valuable details of complex experience and the reasoning behind the actions, expectations, values, emotions, perceptions and behaviour of individuals

Coding and analyse

A thematic qualitative analysis was performed following the process described by Braun and Clarke(19). The purpose of analyse was to identify patterns of codes across a dataset that provide an answer to the research question (18). Coding and theme development were directed by the content of the data by an inductive way. In each country at least two researchers independently analysed the transcripts in their native language using descriptive and interpretative codes.

The first phase of coding each involved national team and generated succinct labels codes that identify ideas from the data that might be relevant to answering the research question.

The second phase searched for themes. During this phase the national teams examined the codes and collected data to identify their own significant broader patterns of themes.

In the third step of the qualitative research process, the whole European research group during the EGPRN meetings reviewed the themes checking the first selected codes and themes to determine which of them were the most relevant to answer to the research question.

Third Phase: involvement of policymakers with Delphi and nominal group.

Research question

Which topics coming from literature research and qualitative studies are relevant for improving the attractiveness of General Practice?

The hypothesis of the research group was that the stakeholders should have a conceptualisation of satisfaction factors for General Practice that differs from those of literature and in practice GPs. They are justified in doing so because this conceptualisation is more in line with population needs and state agencies possibilities.

Objective

The objective of this study was to obtain a list of prioritizing consensual proposals considered important and applicable for health policy makers in order to encourage the recruitment of GPs in France by the French public authorities.

Procedure

A two-round blinded and internet based Delphi method was performed, inviting experts to validate or eventually to rephrase the factors on satisfaction detected in the French interview study (26–28). A Nominal Group by mail followed the Delphi rounds to prioritize the items (28–31). The experts were GPs or general practice trainees, union representatives of GPs, representatives of health insurance companies, from the Ministry of Health, local elected, journalists specialized in care organization care and patients associations.

Delphi is a research method, used to produce a well-structured overview of a topic with the aim of reaching a consensus. The Delphi method is a structured research technique, originally developed as a systematic, interactive forecasting method, which relies on a panel of experts.

Between February and April 2017, the French research group performed a Delphi procedure, consisting of two rounds. A classic Delphi procedure was used with a digital questionnaire in Google Form®. The Delphi consisted of two rounds, because of the limited available time.

In the first round of the Delphi, the experts were asked to fill in whole numbers (either in percentages or working hours) for every question. In the second round, the experts were asked to reflect on the results of the first round and were able to compare their responses

and arguments to those of the other panel members. They then had the opportunity to adjust and modify their responses. This method is useful for building expert consensus.

Selection of the expert panel

The participants in a Delphi need to be experts, who have more knowledge about the topic under investigation than does the general population. Furthermore, Delphi respondents should have an interest in the outcomes, which narrows the potential participants to decision makers and key stakeholders. The research team contacted the organisations to identify key persons, who could adequately represent the view of each organisation.

For the first round the researchers wanted to invite at least 30 participants. In order to increase the number of participants in the sample, we added an extra list with presidents from the local General Practitioner circles. The sample size for a Delphi is not fixed. In the second round, we invited all respondents from the first round. Three reminders were sent out to this group to increase the response rate.

This research was conducted in France, but the protocol for this study would be used by the other countries in Europe to develop a list of proposals considered important and applicable from the point of view of health decision-makers in the countries concerned to promote the recruitment of GPs.

Workshops meetings

Every step of the research was debated during the workshops. We conduced two workshops every year, and the last one in Antwerp in 2015, but the WoManPower team continued to exchange during the followed EGPRN congress.

Ethics statement:

The Ethics Committee of the “Université de Bretagne Occidentale” approved the study.

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Chapter 3: A systematic literature review.

Which positive factors determine the GP satisfaction in Clinical Practice? A systematic literature review.

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Abstract:

- Background:

Looking at what makes General Practitioners (GPs) happy in their profession, may be important in increasing the GP workforce in the future. The European General Practice Research Network (EGPRN) created a research team (8 national groups) in order to clarify the factors involved in GP job satisfaction throughout Europe. The first step of this study was a literature review to explore how the satisfaction of GPs had been studied before. The research question was “Which factors are related to GP satisfaction in Clinical Practice?”

- Methods:

Systematic literature review according to the PRISMA statement. The databases searched were Pubmed, Embase and Cochrane. All articles were identified, screened and included by two separate research teams, according to inclusion or exclusion criteria. Then, a qualitative appraisal was undertaken. Next, a thematic analysis process was undertaken to capture any issue relevant to the research question.

- Results:

The number of records screened was 458. 104 were eligible. Finally, 17 articles were included. The data revealed 13 subthemes, which were grouped into three major themes for GP satisfaction. First there were general profession-related themes, applicable to many

professions. A second group of issues related specifically to a GP setting. Finally, a third group was related to professional life and personal issues.

- Conclusions:

A number of factors leading to GP job satisfaction, exist in literature They should be used by policy makers within Europe to increase the GP workforce. The research team needs to undertake qualitative studies to confirm or enhance those results.

MeSH Terms:

Adult; Career Choice; Career Mobility; Family Practice; General Practitioners; Health care system; Humans; Job Satisfaction; Physician; Primary health care.

Background:

The international World Organization of National Colleges, Academies and Academic Associations of General Practitioners/Family Physicians (WONCA) definition of General Practice (GP) was established in 2002. It emphasised the specific, important and complex role of GP to ensure quality of care for the whole population(2)(46). The World Health Organisation (WHO) stressed the central role of the GP, especially in European health care systems, having the same goal as WONCA(1). However, the WHO also pointed out the recurrent problem of the low appeal of General Practice throughout Europe (47).

Health policy makers, aware of the problem of a decreasing GP workforce, have tried to change national policies in most European countries in order to strengthen General Practice. However, most of these policies addressed the negative aspects described in research, since most of the current research has focused on negative aspects. For example they understood the difficulties arising from GPs' burn out but where unable to change it, concentrating on working hours and work structure. By doing so they reduced the appeal of the profession instead of enhancing it (14)(18)(48)(49). Focusing positively on factors of satisfaction keeping General Practitioners (GPs) in their profession, may increase the likelihood of adequate GP provision in the future. This was the first research hypothesis we wanted to address in this study.

The European General Practitioner Research Network (EGPRN) is a network for research in General Practice that has designed a research agenda. One item on this agenda is the design of research exploring satisfaction among GPs across Europe. Consequently, the EGPRN decided to initialize a research into the satisfaction among GPs throughout Europe (19). Another hypothesis of the group was that the feminization of the GP workforce could have an influence on the future GP numbers. Therefore we wanted to pay attention at WOmen, Men, and MANPOWER in this study which was consequently named "WoManPower". This article is the first step in this research, aiming at systematically studying the literature to identify what is already available in terms of GP profession satisfaction factors.

Method:

The EGPRN research group performed a systematic literature review with the focus on the GP job satisfaction. "Job Satisfaction" is a MESH term (Medical Subject Headings) which is defined by 'a personal satisfaction relative to the work situation'. It was introduced in 1976 in the US national health library.

The review protocol was developed according to the PRISMA guidelines (26)(27). Four researchers performed the entire process. The protocol was validated by the whole European team consisting of GP representatives from the following countries: Belgium, Bulgaria, Finland, France, Germany, Israel, Poland and Slovenia.

Search strategy and inclusion criteria:

Relevant studies were identified by systematic research in the databases Pubmed, Embase and Cochrane. The search was limited to articles published between 1 January, 2000 and 31 December, 2014. The year 2000 was set as the search start year as a turning point for the vision of GP with international work being initiated on its definition (and the WONCA definition being introduced in 2002)(2). Practice and work organisation in general practice have been changed in many countries in the past decade, which might have a strong influence on job satisfaction. Four researches worked independently with a merging of their results at each search and inclusion steps.

The database-specific search included the following algorithm for Pubmed: (("Family Practice"[Majr] OR "General Practitioners"[Majr] OR "Physicians, Family"[Majr]) AND

("Career Choice"[Majr] OR "Career Mobility"[Majr])) AND hasabstract[text] AND ("2000/01/01"[PDAT] : "2014/12/31"[PDAT]) and (("Family Practice"[Majr] OR "General Practitioners"[Majr]) OR "Physicians, Family"[Majr]) AND "Job satisfaction"[Majr] AND hasabstract[text] AND ("2000/01/01"[PDAT] : "2014/12/31"[PDAT]). Those equations were adapted for Cochrane and Embase according to their own specifications.

The research team chose “Job satisfaction” because it was the best possible MESH term to describe positive factors at work. The use of a MESH term was efficient, because it included all possible synonyms.

In addition to the database search, the EGPRN’s national representatives identified grey literature. National teams (8 countries) were asked to provide grey literature citations, using the same keywords or known from experience. These were assessed by the national representatives and included in the review by consensus. Finally the bibliographies of all the included articles were checked in order to find additional references (27).

Articles screening

Four independent researchers screened eligible articles based on title and abstract. Articles were considered relevant if the main focus was on positive factors related to General Practice. Only publications in English, Dutch, German and French were included. Abstracts were excluded if they were not reported in a structured way according to the IMRaD format (ie lacking a formal introduction, method result and discussion format), or if they only described a research protocol. Research articles performed in settings less relevant for the European context were also excluded such as studies undertaken in non-industrialised countries. The studies concerning other specialties were excluded because our review focused on GP. The review did not select the articles focusing on negative factors, or specific populations. Specific points raised by why students and trainees are attracted to General Practice were not explored in this review but are being addressed in additional on-going work.

Articles eligibility and quality appraisal

Next, two research teams (French and Belgian) performed a full-text screening on the content and quality of all eligible articles. Because of the large heterogeneity in the types of studies, we assessed the quality of the articles with the criteria described in table 1. To be included, the article had to score “yes” on every question. This quality appraisal form was adapted from the quality appraisal form of the CASP (35)(36).

Table 1: Quality appraisal.

Did this article give an answer to the research question?
Did the article focus clearly on the research question ?
Was the methodology appropriate?
Was the recruitment appropriate?
Do you believe the results? (Can it be due to chance, bias or confounding?)

Differences of opinion at each step (screening and inclusion) were dealt with by discussion between the two researchers and, where there was a lack of consensus, the whole study group was consulted.

Analysis of the data:

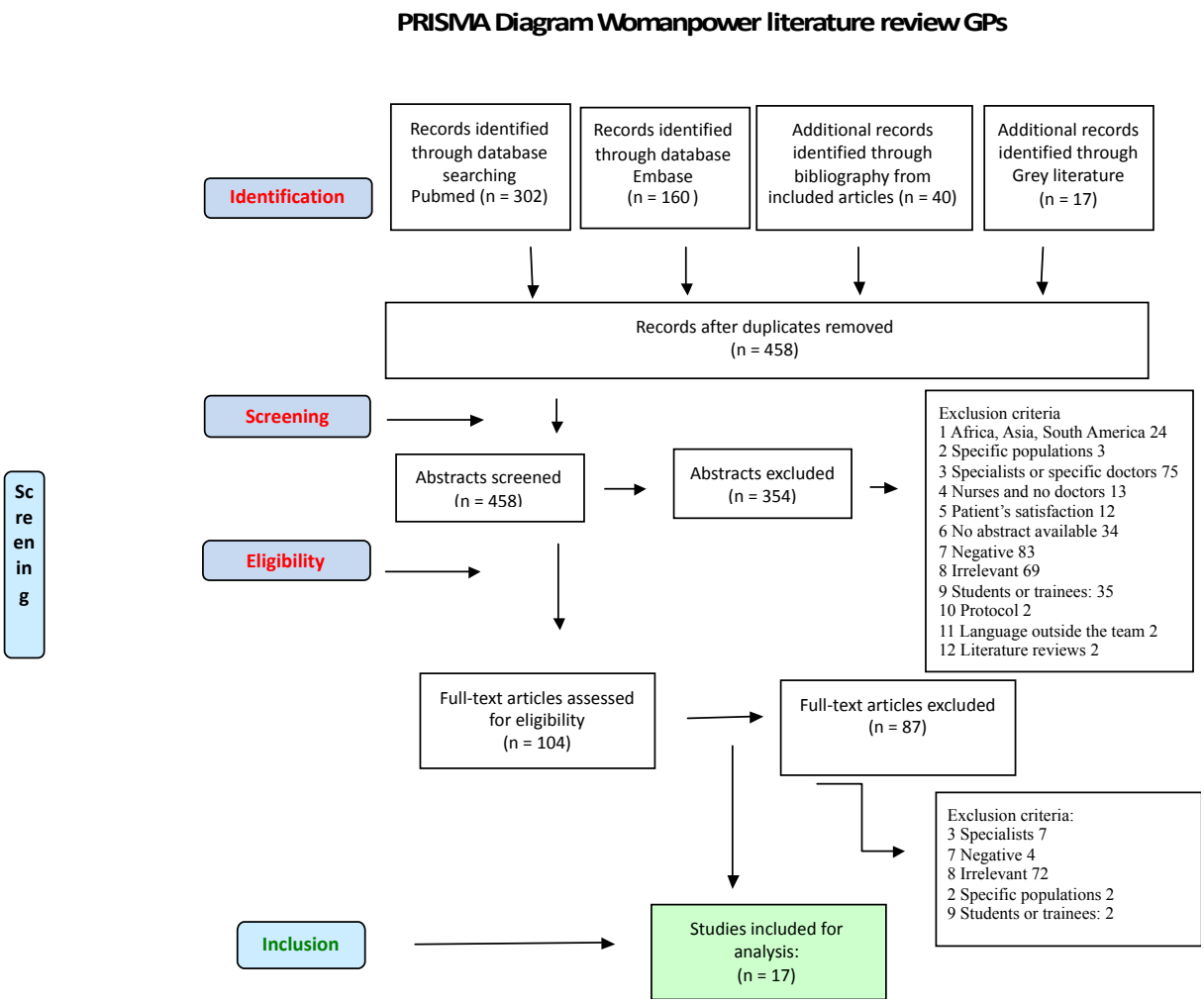
Two researchers analysed the data from the included articles using a mixed method synthesis in which the findings of qualitative and quantitative studies were aggregated at the study level (37). Results were pooled and anonymised at each step of the data extraction. A thematic analysis process was employed with the intention of capturing any issue relevant to the research question. These relevant issues were labeled and subsequently organised into subthemes and overarching themes. For the qualitative studies, the relevant results were the issues described in the research. For quantitative questionnaire based studies on GP satisfaction with different issues related to GP, only the items for which the mean satisfaction score was 60% or above were included. (Different scales were used, so we recalculated this as a percentage of the total).

Results.

Selection of the articles:

The initial search in the different databases produced 458 different articles. Based on the abstracts, 104 full-text articles were eligible for further assessment and, ultimately, 17 articles were included in the review (50–66). The full process is described in the PRISMA flow chart (figure 1)

Fig 1: PRISMA Diagram Womanpower literature review GPs



All included studies were published in the English language. Six of the 17 studies were conducted in Canada, four in Australia, two in the USA, two in Germany, one in New Zealand, one in the United Kingdom and one in Switzerland.

Of these 17 selected publications, eleven were cross-sectional questionnaire studies; five used qualitative methods and one was a quantitative comparative study.

Table 2 provides an overview of the studies included in the review.

The research team collected 157 factors related to GP job satisfaction. Those factors were classified into 13 subthemes, which could be grouped into 3 overarching themes of issues supporting GPs satisfaction in their profession. First there are general profession related themes, applicable to many professions. A second group of issues is specific to a General Practice setting. Finally a third group is related to professional life and personal issues.

Table 2: studies included in the review.

Ref in texte	First author	Title	Year	Journal	Langage	Country	Aim of the study	Method
14	Meli DN	General practitioner teachers' job satisfaction and their medical students' wish to join the field : a correlational study	2014	BMC Fam Pract.	English	Switzerland	To determine if medical students' desire to become GPs is related to the job satisfaction of their teaching GPs and explore the factors tied to this job satisfaction.	Questionnaire
15	Goetz K	The influence of workload and health behavior on job satisfaction of general practitioners.	2013	Family Medicine	English	Germany	To identify influencing factors on job satisfaction with regard to general practitioners' (GPs) characteristics such as age, gender, health behavior, body mass index (BMI), and workload.	Questionnaire
16	Behmann M.	Job satisfaction among primary care physicians: Results of a survey	2012	Deutsches Arzteblatt	English	Germany	Job satisfaction among PCPs in Lower Saxony, a large federal state in Germany.	Questionnaire
17	Shrestha D	Aspects of work-life balance of Australian general practitioners: determinants and possible consequences	2011	Aust J Prim Health.	English	Australia	To investigate the extent, determinants and possible consequences of work-life balance of Australian GPs.	Questionnaire
18	McGrail MR	Professional satisfaction in general practice: does it vary by size of community?	2010	Med J Aust.	English	Australia	To investigate whether the level of professional satisfaction of Australian general practitioners varies according to community size and location.	Questionnaire
19	Noonan T	When should I do rural general practice? A qualitative study of job/life satisfaction of male rural GPs of differing ages in New Zealand.	2008	N Z Med J.	English	New Zealand	To investigate the perceived advantages and disadvantages of rural general practice at various stages of family life of male NZ-trained GPs.	SS Interviews
20	Geneau R	Primary care practice a la carte among GPs: using organizational diversity to increase job satisfaction.	2007	Fam Pract.	English	Canada	To elicit its different facets and to understand better how organizational factors affect it.	SS Interviews
21	Lepnurm R	Factors associated with career satisfaction among general practitioners in Canada	2007	Can J Rural Med.	English	Canada	To articulate models that explain career satisfaction among general practitioners (GPs) in these practice environments.	Questionnaire
22	Manca DP	Rewards and challenges of family practice: Web-based survey using the Delphi method	2007	Can Fam Physician.	English	Canada	To identify and describe the important rewards and challenges that affect family physicians in Alberta.	Delphi method
23	Rivet C	Hands on: is there an association between doing procedures and job satisfaction?	2007	Can Fam Physician.	English	Canada	To determine whether there is a relationship in family medicine between higher overall job satisfaction and doing a wider range of procedures.	Questionnaire
24	Walker KA	What keeps Melbourne GPs satisfied in their jobs?	2007	Aust Fam Physician.	English	Australia	To investigate strategies that maintain and improve Melbourne (Victoria) GP job satisfaction.	Questionnaire
25	Backer EL	The characteristics of successful family physicians in rural Nebraska: a qualitative study of physician interviews	2006	J Rural Health.	English	United states	To explore rural physicians ' unique characteristics affecting their decisions and satisfactions with practice in a rural area.	SS Interviews
26	Fairhurst K	What general practitioners find satisfying in their work: implications for health care system reform.	2006	Ann Fam Med.	English	Scotland	To explore general practitioners' satisfaction with their patient visits and the congruity between this satisfaction and new models of practice, such as those implicit in the new general medical services contract in the United Kingdom.	SS Interviews
27	Chan BT	Factors influencing family physicians to enter rural practice: does rural or urban background make a difference?	2005	Can Fam Physician	English	Canada	To examine where rural physicians grew up, when during their training they became interested in rural medicine	Questionnaire
28	Rourke JT	Relationship between practice location of Ontario family physicians and their rural background or amount of rural medical education experience.	2005	Can J Rural Med	English	Canada	To determine if there was a difference in rural background and rural medical education experience between practising rural physicians and practising urban physicians in Ontario.	Questionnaire
29	Carek PJ	Practice profiles, procedures, and personal rewards according to the sex of the physician.	2003	South Med J.	English	United states	To explore physician and practice characteristics according to sex.	Questionnaire
30	Shanley BC	Factors influencing career development of Australian general practitioners.	2002	Aust Fam Physician.	English	Australia	To evaluate factors influencing career experiences and career choices made by former general practitioner registrars and to ascertain the reasons for these career decisions.	Questionnaire

Those three groups of themes are described in table 3.

Table 3: Themes from the literature review:

N° of the reference in the text	Articles First author, year	General professional theme		Specific GP's practice									Professional and private life		Number of code by article
		Workload balance and income	Responsibilities and recognition of quality of work	Successful medical management of patient Feelings of being competent	Freedom to choose workplace and organise work	Vocational choice; be able to be the doctor you want	Role of GP's personality, gender, physical health	Intellectual stimulation to use abilities; continual professional development	Relationship with patients and their families	Relationship with other professionals	Variety in clinical practice; other professional challenges	Teaching and academic responsibilities	Supporting influence of community	Influence of the family	
14	Meli DN; 2014	X	X		X			X		X	X				6
15	Goetz K, 2013	X	X		X		X			X	X				6
16	Behmann M.; 2012	X			X		X	X	X	X					6
17	Shrestha D, 2011	X			X		X						X	X	5
18	McGrail MR, 2010	X	X		X			X		X	X		X	X	8
19	Noonan T, 2008	X							X		X		X	X	5
20	Geneau R, 2007	X	X	X	X	X		X	X	X	X				9
21	Lepnurm R, 2007	X	X		X		X			X		X	X	X	8
22	Manca DP, 2007	X			X			X	X		X	X			6
23	Rivet C, 2007	X			X		X	X	X			X	X	X	8
24	Walker KA, 2007	X		X	X			X	X		X				6
25	Backer EL, 2006		X	X	X	X		X	X		X		X	X	9
26	Fairhurst K, 2006			X		X		X	X						4
27	Chan BT, 2005					X	X	X				X	X	X	6
28	Rourke JT, 2005				X							X	X	X	4
29	Carek PJ, 2005	X			X	X		X						X	5
30	Shanley BC, 2002	X		X		X	X	X			X	X	X	X	9
Number of studies on the topic		13	6	5	13	6	7	12	8	6	9	6	9	10	

General profession related themes:

Some topics found in the literature were not specific to General Practice, and could be found in other medical professions as well as in non-medical jobs. We described them under two subthemes: *"workload, income and the balance between them"* and *"getting responsibility and recognition for your work".*

Workload, income and the balance between them

Working long hours requires sacrifices from GPs and their families. This topic was well explored in the literature. The topic of workload was studied in 13 of the 17 articles. The number of hours worked per week, including time spent on paperwork was not studied in the selected articles. Studies only looked at satisfaction related to working hours (58). Many articles studied both income and workload. The main research question of these articles did not focus on satisfaction, but in comparing satisfaction with workload balance, related to gender or practice environment. We kept the results on income and workload balance as positive topics, but there was considerable variability among the different studies. What constituted a manageable workload and income balance depended on the individual lifestyle or gender of each GP. The question of gender was studied, for example in an Australian study: *"Female GPs were more satisfied than male GPs with their work-life balance"* (60). There was no overall agreement on the concept of work-life balance. One important factor emerged: that of individual perception. "*Flexibility in work hours is a factor which increased GP satisfaction"* (53). "*The freedom to choose the workload was important for job satisfaction"* (60).

The payment system had an effect on GP satisfaction about their income. GPs like to be involved in their payment method. In a Canadian study, "*rural physicians preferred the fee-for-service method, while urban physicians supported blended or fixed payment schemes"* (57). Overall, "*GPs working in a rural area were more satisfied with their income than urban GPs"* (51) (54).

Responsibilities and recognition for quality of work:

Having the opportunity to take responsibility, having a positive self-image and recognition for work undertaken were seen as important prerequisites for being satisfied with the profession. Being part of the community was another important satisfaction issue (50)(51)(54)(57)(56)(61). "*GPs in smaller communities were slightly more satisfied with the amount of responsibility they had and recognition they received for good work"* (54). A qualitative study, conducted in Nebraska, highlighted the GPs' relationship with the social

community: "*You are a very important part of the community and your opinion is listened to"* (61).

Specific GP satisfaction factors

We grouped the specific GP related factors into 9 sub–themes described below. Some of these aspects of satisfaction could be found in other professions, but these factors are more specific for the medical profession .

Successful medical management of patients and the subsequent feelings of being competent were associated with a higher degree of satisfaction. In a Scottish qualitative study, GPs derived the greatest satisfaction from consultations where GPs perceived that they personally had contributed to a successful outcome for the patient (62).

Freedom to choose the workplace and work organisation was one of the most relevant topics found in the literature, addressed in 13 articles. GPs wanted to have the freedom to choose their work method (51)(54)(57), their payment method (57), and have flexible working hours (53). GPs need this freedom in order to have job satisfaction (59). In a qualitative study, an American GP said : *" It's a way of having independence and doing what I want"* (61).

Vocational choice; being able to be the kind of doctor you want to be: is an important sub-theme in being satisfied with your work as a GP. Six studies stated that the GP's own personality and personal values played an important role. Values can differ between GPs. If their job were fully compatible with their temperament and personal values, then GPs were more satisfied. Some chose to be a "*traditional family doctor*" (56)". The mission for most GPs was to help people. "*The goal of practice is to meet people's needs, take care of them and do the best you can*." (61)

The theme of GPs' physical health, gender or age were assessed in the literature. A good health is associated with GP satisfaction. Not smoking and not being overweight is correlated with greater GP satisfaction. "*Older age, being female and having good health behavior has a positive effect on job satisfaction* "(51).

Intellectual stimulation to use abilities; continual professional development: This is one of the most studied aspects of satisfaction. 12 articles in the review referred to the intellectual aspect of the profession as a positive factor. GPs appreciated the intellectual challenge, and necessary skills that their GP work offered them. "*The intellectual and practical challenge to solve and assist with people's medical problems"* (60). "Doing a wider range of procedures was associated with higher overall job satisfaction" (59).

Relationship with patients and their families: Another group of potentially positive factors was related to the GP and his/her patient contacts and relationships. An efficient doctor-patient relationship was also considered an important factor in GP job satisfaction (52).

Relationship with other professionals: GPs need to work with colleagues. This topic was found in seven articles. They emphasised the importance of relationships with other specialties and hospitals (57)(54).

Variety in clinical practice; other professional challenges: *" General Practice is normally the point of first medical contact within the health care system, providing open and unlimited access to its users, dealing with all health problems regardless of the age, sex, or any other characteristic of the person concerned "* (2). The opportunity to deal with a variety of medical problems and patients was a positive aspect, even in rural areas (50,51,54,56,57).

Teaching and academic responsibilities was a final positive sub-theme related to GP practice. Positive GPs wished to communicate their work and skills. Eight articles studied the teaching role of GPs. Academic responsibilities gave GPs positive stimulation. *"Teaching, sharing knowledge and experience, and mentoring"* (58) *"Factors that contribute to career satisfaction for physicians include teaching and research"* (57). As teaching is a factor for GP satisfaction, internships in General Practice were seen as extremely important in attracting students to General Practice (50). This was an important influence on career choice for young students (66).

Professional and private life

Nine articles described the influence of community on GPs' job satisfaction. The community was important, especially in rural areas: "*Rural medical education is important for students from a rural background with a desire to work in a rural practice"* (64).

An important factor influencing career choice was the influence of the family or domestic circumstances (66). GPs' families wanted access to community services and leisure facilities.

Discussion:

Main results

The main contribution of this literature review is a description of a broad range of factors that GPs consider satisfying in relation to their job.

In 2006, Van Ham et al published a systematic literature review about job satisfaction among GPs that described both decreasing and increasing trends in decisive factors (25). The review found 24 relevant citations. The main factors increasing job satisfaction were: work diversity, relationships and contact with colleagues and being involved in teaching medical students. Our study confirmed these and added positive elements that could be targeted and used to support GPs and keep them in the job.

First, there are general professional aspects that are relevant for General Practice. Our review specifically highlights the importance of a balance between workload and income. Workload and income issues were frequently discussed but individual perceptions on their balance differed, related to age and gender (53)(60) A good workload balance for the female GPs seems linked to a lower number of hours worked. A good income is important for every GP. However, the pitfall is that GPs with higher income rates were less satisfied due to their heavy workload. The challenge is to find the right balance between them (51). This theme is important for all professions and can be approached from a negative perspective when overwork leads to burn out, or in a positive light when the workload and income are appropriate. A good work-life balance reinforces GPs' job satisfaction. Policy makers should not force GPs to change this personal choice of workload and income balance.

Second, specific factors related to General Practice are linked with satisfaction. Of great importance for GP satisfaction is the freedom to organise and manage their own work and to be able to be the kind of doctor they want to be. Providing a context where GPs can build, run and organise their practice in line with their personal values seems a better way of maintaining satisfaction among the GP workforce.

Next, the literature analysis highlights the importance of challenges such as intellectual stimulation(60), and being able to practise a wide number of procedures (23). The diversity in practice is the first characteristic of General Practice, according to the WONCA definition. The variety in General Practice is a positive aspect well studied in the literature, found in nine articles in our review. The opportunity to widen activities to teaching and doing academic work, was also found to contribute to a high level of job satisfaction for some GPs, along with feeling clinically competent (62). With regard to the latter, being able to make a personal contribution to a patient's health is another very relevant experience contributing to job satisfaction. Our systematic literature review has shown that a satisfied General Practitioner wants to be clinically competent.

« Person centered care » which links to one core competency of the WONCA(2) should also be taken into account as a key competency for being a happy and successful General

Practitioner. Great attention should be paid to that competency in initial and on-going medical education.

The unique doctor-patient relationship, while feeling useful and being integrated into the community, makes satisfied GPs. Policy makers must keep in mind, when reorganising the professions in primary care, that the most attractive factor in the profession seems to be the unique doctor-patient relationship, along with the longitudinal care and diversity in the work, which are extremely attractive factors in the profession (60)(58)(52).

Finally, the systematic literature review found that extra professional factors were important to be a satisfied GP. These extra professional factors are those that are of importance for the GP and his/her family, such as strong social support, schools, leisure activities and a good quality of life in the living environment. A strong link with the community and social recognition were also important for increasing the GP workforce. Stakeholders and health system should take this aspect into consideration.

Strengths and limitations of the study:

One of the results of this literature review is a broad overview of the positive factors which keep GPs in their clinical practice. This comprehensive view on satisfaction factors cannot be found by reading the individual articles. Most research on GP satisfaction was undertaken in a particular context, with small numbers, and with a focused research question on specific aspects. Merging all those factors provides a broader perspective on the topic. This richness of data has been obtained using a broad selection of articles.

The major part of the literature focused heavily on the material working condition of GPs. These studies were almost exclusively based on surveys which used declarative questionnaires, such as the Warr-Cook-Wall job satisfaction scale, which is not specific to General Practice (24). These questionnaires did not examine in depth the aspects GPs might find satisfying in their profession. The data from the qualitative studies were very relevant. Qualitative studies allow a deeper investigation into the specific aspects of General Practice. However their research question sometimes focused on a particular context.

Confounding factors or interpretation bias could come from differences between social health systems and linguistic understanding. This bias was limited by working with an international research team, containing GPs from diverse cultures, and regular users of different health systems. During the screening of the research, different ways to estimate GP satisfaction were found. Some of the studies asked, “Why are you satisfied?” or “Which policies would lead to an improvement in GP satisfaction?” The research group decided to keep the various question forms although this could have caused confusion bias.

Implications for practice and research

These results are of interest because most of the policies which tried to increase the GP workforce were based on non-specific professional aspects. This literature review opens up new possibilities for increasing the GP workforce by referring to specific activities within General Practice.

The literature review draws up a description of the General Practitioner who is satisfied in his/her work. Satisfied GPs are professionals who can keep a reasonable workload balance, which provides sufficient income and who are free to organize their work and determine how they work. Satisfied GPs are sufficiently challenged in their work and feel competent and useful. They have opportunities to broaden their tasks such as being involved in teaching or academic work. They wish to preserve their own heathland value good relationships with their patients and other professionals and live in an environment/community which appeals to them and to their family. These results will be transmitted to stakeholders of each of the participating countries, to be used in discussions with policy makers on the future of General Practice. This literature review provides new opportunities to improve health systems in OECD countries by referring to the satisfaction factors. To improve the strength of health work, a policy must promote a balance between work and income for GPs. It must take advantage of the skills of GPs, give them responsibilities and strengthen their image in the society. Policy makers now have a broad view of which factors constitute job satisfaction for GPs and could integrate them into their policies to increase the workforce.

This literature review showed numerous factors related to job satisfaction among GPs which are not widely explored elsewhere. Qualitative surveys seem important in the identification of these factors. Therefore, as the next step, the research team is committed to looking at these factors using a qualitative approach, with interviews and focus group discussions with GPs.

Conclusion:

Satisfaction factors are available to increase the GP workforce. Some have never been integrated into health system policies, such as clinical teaching, role modelling, freedom in work management, freedom in organization of their working environment, intellectual stimulation, person-centred care and effective medical management of patients. The importance of freedom in organization and management of care should stimulate the interest of stakeholders. Stakeholders and teachers should note the importance of clinical teaching.

Specific GP practice settings need to be used in initial medical education. This positivist approach could lead stakeholders to take decisions which are directed towards increasing the GP workforce.

Ethics statement:

The Ethical Committee of the "Université de Bretagne Occidentale" (UBO), France approved the research.

Consent to participate

For this study, the informed consent is “Not applicable.”

Author’s contributions:

B Le Floch designed the study, collected data, drafted and revised the paper. H Bastiaens designed the study and revised the paper. JY Le Reste designed the study, drafted and revised the paper, H Lingner revised the paper, S Csachowsky revised the paper, A Sowinska revised the paper. R Hoffman revised the paper. P Nabbe revised the paper, R Assenova revised the paper, T Koskela revised the paper, Z Klemenc-Ketiš revised the paper, T Montier revised the paper, L Peremans designed the study and revised the paper.

List of abbreviations:

EGPRN: European General Practice Research Network

GP: General Practice

GPs: General Practitioners

MESH: Medical Subject Headings

UBO: Université de Bretagne Occidentale, France.

WHO: World Health Organisation

WONCA: World Organization of National Colleges, Academies and Academic Associations of General Practitioners/Family Physicians.

Acknowledgements:

We would like to sincerely thank the European General Practice Research Network for its support in the survey.

The authors are grateful for the comments and suggestions provided by Alex Gilman and the work of PM Bosser, S Drevillon, W Haertle and A Gicquel.

Funding:

This project had an EGPRN funding of 8000 €.

Competing interests:

All authors hereby declare that they have co competing interests for this research

Availability of Data and Materials:

All data and materials would be sent on request. Contact Département Universitaire de Médecine Générale, Faculté des Sciences de la Santé, 22 av Camille Desmoulins, 29200 Brest cedex, FRANCE.

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Chapter 4: The result of qualitative studies from Students and GPs in France

Research Title:

Which positive factors determine the attractiveness of General Practice and retention in Clinical Practice? The result of qualitative studies from Students and GPs in France.

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Abstract:

Background: General Practice seems to be perceived as less attractive throughout France and Europe. Most of the studies on attractiveness focused on negative factors. A French research team studied the perception of job satisfaction in General Practice from medical students and General Practitioners in France. The research question was: “Which positive factors determine the attractiveness of General Practice and retention in Clinical Practice?”

Method: Nine qualitative studies were conducted in different setting with a phenomenological perspective. Students and GPs were selected, using a purposive sampling strategy, until data sufficiency for each study. Finally, an analysis of the codebooks of these studies was achieved to synthesize the whole data in a common codebook.

Results: The investigator of the studies interviewed 88 students and 71 GPs. The final codebook was created with 66 interpretative codes and 9 themes. The nine themes were: the GP as a person, satisfaction with work in General practice, patient's care and relationships, practice organization and autonomy in practice, relationship with the professional community, satisfaction with skills competencies, GPs and University, GP in the social community, private life with relatives and family.

Conclusion: This study identified several positive factors attracting medical students to General Practice and keeping GPs in their profession. This description identified GPs as person patient centered, who needed to have freedom to choose an efficient working environment, to organize their practice and who wanted professional development and specific competences.

MeSH Terms:

Adult; Career Choice; Career Mobility; Family Practice; Medical Students; General Practitioners; Health care system; Humans; Job Satisfaction; Physician; Primary health care.

Introduction:

The WONCA definition of General Practice emphasizes the specific, important and complex role of General Practice to ensure a quality of care for the whole population(46)(2). The World Health Organization emphasizes also the central role of general practice in European health care systems (1). Nevertheless across Europe General Practitioners (GPs) are running out. GPs are increasingly aging. Young people do not want to become GPs (67). As in Europe General Practice's workforce is in decline in France. The French Medical National Council published in October 2017, the 11th Atlas of the medical demography, which figures the number of doctors in France (11). Comparing the counts published in 2007, the atlas in 2017 highlighted the problem of demography is not only numerous: the drop in the number of physicians in regular activity, feminization of the profession and the generational renewal.

Many researches were achieved about the reasons for GPs to leave the profession (68), but almost none on GPs satisfied with their clinical work and the reasons to stay in practice (25). Stressing the positive aspects of the profession might improve the interest of students and young physicians for general practice.

The research team conducted a systematic literature review to determine the satisfaction factors related to the practice of General Practice (28). The results highlighted that much of selected research was conducted using questionnaires that will not fit in depth into the problems of General Practice (51,69). For example, some of these questionnaires were based on the Warr-Cook-Wall job satisfaction scale, which is not specific of General Practice (24). A qualitative research was necessary to find which factors of their job were positive and give satisfaction in French GP.

Research question

Which positive factors determine the attractiveness of General Practice and retention in Clinical Practice in France?

Method:

Four qualitative descriptive studies from the GPs' perspective and five qualitative studies from the medical students were performed in France [11,12]. The aim was to have different perspectives with different qualitative approach and different setting (37).

The European General Practitioner Research Network (EGPRN) was very interested in this concept of positive vision that could help enhance GPs' workforce in primary care throughout Europe (19).

Ethics Statement

The Ethics Committee of the "Université de Bretagne Occidentale" approved the study. The participants provided their written informed consent to participate in the study.

Participants

In each study, approached students and GPs were selected by a purposive sampling strategy searching a maximum variation of the population until data saturation. This maximum variation was intended on gender, age and university for students and on gender, experience, age, type of setting, (group or solo) and place of setting, (rural or urban) for GPs.

Studies design from the medical students

The first study used face-to-face individual semi structured interviews with students throughout France. Those trainees, who have the possibility to choose every specialty, chose General Practice for their future career, and it was interesting for the research question to know why.

The second study was undertaken using face-to-face individual semi structured interviews with students throughout France, after their first training in primary care.

The third study was achieved by focus groups in a population of students in the sixth year, before their choice of specialty.

The fourth study was achieved by face-to-face interviews in a population of students during their sixth year to collect their intimate perspective

The fifth study was conducted using face-to-face individual with younger medical students during their second year of medical study.

Studies design from the GPs

The first study used face-to-face individual semi structured interviews with GPs from the West part of France to collect their intimate perspective.

The second study was undertaken by focus groups with GPs from West Brittany in order to collect their professional group perspective.

The third study was achieved using face-to-face interviews in a population of young GPs installed in rural area in Brittany. The aim was to explore if this population had different motivations than the general population of GPs, explored by the first studies.

The fourth study was conducted by phone with GPs throughout France to assess the reliability of the previous results.

The qualitative method used focus groups and semi-structured interviews with the same interview guide. The guide was slightly changed after the first study to achieve a better comprehension for participants.

Data collection

The interviews were conducted from 2011 to 2016. Focus groups were audio and video recorded and entirely transcribed. Individual interviews were audio recorded and entirely transcribed.

Interviewers used the same topic list for focus groups and semi-structured interviews. The guides were slightly adapted for GPs or students

An interview grid, composed of six open questions, was developed and tested by the European research group. The themes for interviews grid were summarized in table 1. The aim was to express the different determinants of job satisfaction of General Practitioners in France: Those related to the profession, but also the personal determinants.

Table 1: Themes for interview guide

1. In the life of a General Practitioner, there are pleasant experiences. During your internship with the practitioner, you have probably had pleasant, funny experiences. Could you tell us one?
2. What made you happy in (your future) the profession of general practitioner? What made

you happy to go to work every morning?
3. What is the magic formula for successful installation?
4. What appeals GP's family?
5. What environment, what makes a GP happy?
6. We discussed a lot about satisfaction. Are there anything we haven't mentioned and that makes you happy?

Data analysis

The data collected was analysed using a thematic analysis method (38) with an open coding followed by an axial coding and a selective coding (30). For each study a pair of researchers coded the transcripts independently and compare the results of their analysis at the end of every coding step.

Results

The saturation was reached for each of the nine studies. The whole data from analysis of the studies was synthesized in a common codebook. This analyse was realized by two independent researchers, and validated by the complete team.

Participants

The studies including GPs

The research group conducted 33 individual interviews and 5 focus groups including 38 GPs. During the whole study, 71 GPs were interviewed. Some of approached GPs declined the invitation. Reasons for declining were prior engagements and heavy workload. None of them declined because of lack of interest in the study.

For the first study, 11 interviews were conducted, and saturation was obtained after the 9th interview. In the second study, five focus groups including 38 GPs were performed. Saturation was obtained after three focus groups. For the third study, done with young GPs installed in rural area, 6 GPs were interviewed. Saturation with axial coding was reached at the end of the fourth interview. During the fourth research with GPs in whole France, 16 interviews were conducted. Saturation was reached after the 12th interview.

The studies including students

The research group conducted 45 individual interviews and 6 focus groups including 43 students. During the whole study, 88 students were interviewed. The principle of maximum variation has been applied for all of these studies. The participating population was composed of students from rural or urban origins. Every socio-occupational category of the parents was represented.

Data analysis

The synthesis study analysed in depth the whole data of each subgroups. All open codes have been aggregated in 66 axial codes which were discovered in the two populations. No axial codes was specific of one population (students or GPs)

Analysis of the data:

The themes and codes are classified in table 2.

GPs satisfaction was explained by professional factors specific or not for general practice, extra professional factors and personal satisfaction with family or social community

The data was classified in ten themes.

The ten satisfaction themes were:

1) GP as a person
2) Satisfaction with work in General practice
3) Patient's care and relationships
4) Skills competencies and satisfaction
5) Practice organization and autonomy in work
6) Relationship with the professional community
7) GPs and University
8) GP in the social community
9) Private life, relatives and family

1) The GP as a person:

The intrinsic characteristic of GPs as a person was very important for all respondents. GPs were motivated in taking care for people and helping them in meeting their needs.

“If he has a personality suited to General Practice, it will succeed”. (GP).

GPs must take care of themselves in maintaining physical and mental personal health. They desired to remain an ordinary person.

“Physically and healthy mind”. (GP).

"Have a normal life" (Student)

GPs had strong coping strategies to adapt to any situation, different patients and contexts with a broad scope of diseases. They knew their professional limitations and the necessity to control the level of involvement with patients.

"Having always question, I think it is important in General Practice" (Student)

GPs must spare their emotional toward patients but could be empathic and near of their pane.

“Having big blows as the announcement of bad news” (GP).

They became a GP to help people, to relieve them, to save them from disease and suffering.

"It's so nice when we can help someone" (Student).

2) Satisfaction with work in General practice

Both GPs and students described General Practice as an interesting profession. They were passionate and proud to be GPs.

“I always find pleasure to go to work”. (GP)

“When I went to the general practitioner, I went there with pleasure I do not know how to explain" (Student).

GPs were happy to have alternative activities, like teaching, working in a nursing home, being the doctor of a sport association, for example. Those additional activities change the normal activity of primary care.

"There are quite a few who have a general practice and next door, either a session at the hospital or in a sports facility. It's something that I like well, being diversified” (Student).

General practice offered a wide range and heterogeneous activities, having a varied activity, various health problems to solve and different patients. GP is the first access to care and can care a lot of health problems. They had the feeling of being able to do a lot of things.

3) Doctor-patient care and relationships

A rich human relationship existed between GPs and their patients. The human sense of GP's improved with their patients.

“The story of the people we cross can only help us to raise” (GP).

There was a mutual trust between GPs and patients. Negotiate with patients to make them accept management of their health might be difficult. But if it success this was a positive aspect of the profession. The importance of freedom of care is also reflected in their vision on care. The patient can choose is doctor and it is well.

“With some people you have to speak with other people you have to ear” (GP).

A GP can be a doctor of the whole family, for several members of the family, or for several generations. It was a great satisfaction and a special relationship. And GPs liked respect and they were sensible to their gratitude.

"The fact of following generations, for me, this is one of the most positive aspects of my work." (GP).

GPs said they are aging with their patients. And the relationship enhance over time. French GPs are coming out a long tradition of taking care in a personal way of their patients. These patients are used to have a single-handed GP, who has a lifelong trustful patient relationship.

Students and GPs got satisfaction with patients' care.

"Well taking the time to see each patient" (Student).

They wished to provide care in a comprehensive and holistic approach, with communication, understanding the perspective of the patient, his personal vision, not only the medical problems but also the patient as human being. They dealt with the care management and ethical questions.

“The patient, personally, I let him choose. Choose because of his own personal or family history” (GP).

The patient was in a longitudinal care during time.

The patient was the most source of satisfaction for the GP, which like to give care, to communicate and be competent.

4) Skills, competencies and satisfaction:

One remarkable theme was the necessity to have good competencies. A satisfied GP is a competent GP.

"Having the brain constantly in effervescence." (GP).

They wanted to work using the skills of General Practice with communication, clinical diagnose, reasoning and being a good professional. They wanted to be a good professional with a reflexive practice.

"To be able to use all his knowledge" (Student)

"To be the first resort of patients" (Student)

The interviews emphasized that doctors feel the need to be competent to be satisfied in their work.

5) Practice organization and autonomy in work:

Freedom of practicing was an important issue for French GPs. They were working in a liberal health care system and this is reflected in the answers of the GPs.

"There is no routine, because you never know what will be done during the day ahead." (GP).

"We do not know what to expect at each consultation" (Student)

For a good satisfaction in General Practice, it is necessary to have a competent practice support team, secretary, nursing team, and to have necessary technical conditions to work. GPs wanted independence and freedom for their work organization It includes the practice equipment, how to treat the patients. French GP prefers to be his own chief.

"Yes, and then we keep a little freedom I do find it in the way we work, it is at some point to say No!"

Doctors stressed the importance of an organized continuity of care.

"And then, the mobile phones anyway… liberated us!"

GPs and students liked to be the center of the care and the link between other specialties. They want an efficient support from others specialties.

"Good collaboration between different health professionals" (Student).

Having the possibility to choose the location of the practice, and where they work is evocated by some GPs. They choose by their origin or by opportunities.

"I'm not too far from them (family)" (Student)

6) Relationship with the professional community

GPs had relevant relationship with the professional community, others doctors from others specialties, or the other professional of care.

Students and GPs wanted to have the opportunity to choose colleagues is on importance to have the same point of view for the patient's care. GPs want fair relationships with the specialists on one hand, but on the other hand are proud to be the coordinator of care.

"In a practice with several doctors of several generations, it can help to learn from them and to confront some of his knowledge and then perhaps bring the oldest doctors new recommendations" (Student).

A lot of GPs interviewed stress the advantages of working in a group practice or inter professional team.

"It's reassuring to have someone" (Student).

"The relationship, the pleasure to communicate with specialists, colleagues with which we enjoy working." (GP).

7) GPs and University

GPs were proud than Medical Practice is more visible during the medical studies. The clerkship in General Practice is important for the students for their future career choice.

"It's also a pleasure to work with someone who is there to ask questions" (Student).

Some of GPs are teacher in general medicine, or tutor and want to do research in General Practice.

"And be able to do research" (Student).

Having good relationships with students and trainees was a positive aspect.

Trainees learn from GPs and GPs learn from trainees. This changes the perspective of the work.

"My involvement with trainees.... This is a permanent happiness!" (GP).

8) GP in the social community

The social community is on importance for the GP. The GP needs to be part of the community. He needs to have good social contacts, have a broader vision on the patients outside the practice.

"I think we have a real obligation to society" (GP).

The GP is satisfied to feel than General Medicine is a respected profession.

"I think it's always nice for a child to have a doctor's dad" (Student).

The aspect of income is important.

"But must also admit that it is a comfort uh ... extraordinary … not to have anything to worry about money! " (GP).

"I'm sure I'll make a good living" (Student).

For the respect of is private life, is important than every GP can choose his level of involvement in society.

9) Private life, relatives and family

GPs search facilities for his family, like an employment for his spouse, facilities for children (schools, leisure…). He wants to have a complete family life, the opportunity to have nice holidays, with enough money and time for it.

To manage professional and private life it is useful to put limitations in the professional activity.

"That I do not do crazy schedules" (Student).

GPs need a family and social support in their profession.

"A certain pride in seeing me as a GP" (Student).

The family is involved in the professional choice: parents, spouses and children.

Discussion

Main points

The great number of interviewed participants allowed a rich data collection. This data collected from medical students and GPs draw a comprehensive portrait of a satisfied GP.

The GP's satisfaction comes from the patient and the community when it is possible to join to the activity the respect of some values issue from the person. There is a strong link between the French GP, his patient, his colleagues and the social community.

The main result of this study is that there is a strong agreement between the results obtained by GPs and those of students.

Implication for GPs recruitment:

One of the aims of the study was to improve recruitment in General Practice. This study gave some links for this. It was useful to focus on the satisfaction, the patient and the social or professional community. The French GPs were able to give a lot, but wants respect and a fair integration for his family.

Implication for the teaching:

To be a teacher in General Practice was a positive factor for GPs. The students and the GPs stress the importance of stage in primary care. The positive aspect of the stage is multiple. It permits a discovery of the profession for young doctors and it is positive for GPs, which have pleasure to show their profession to the students.

There is a mutual enhancement between GPs and students. Develop stage in primary care is one of the best way to resolve the lake of GPs.

Strengths and limitations of the study

The main strength of this study is the fact that a set of 9 homogeneous studies was conducted throughout France with a French collaborative team, in relation with the European team. 71 GPs and 88 students were interviewed. This study was the first in France studying GPs' satisfaction with a specific research question and an appropriate qualitative method (25,28).

Selection biases were very limited because even if some surveys were finalized only in Brittany other parts of France were included in other ones. It was interesting to note that no new code emerged from those studies, which reinforced the validity of previous studies. Information biases were limited as the saturation was tested for each study with two researchers working independently and validated by the whole research group.

Confusing factors were limited as data extraction was performed with two researchers working independently with a final merging at each coding step. Each coding step was finally validated with the group of researchers.

The aim of the sampling strategy was to incorporate GPs and students with a maximal heterogeneity.

The biggest difficulty was to interpret and class a so rich data. Those biases were limited by a collective work in France and the help of the EGPRN research group.

Discussion of the finding about literature:

Comparison with qualitative studies

Few qualitative researches were conduced on the topic of GPs' job satisfaction (71). An Australian qualitative study focused on young GPs in rural area. Although the notion of rurally is different between France and Australia, the comparison is interesting. Young GPs had sense of community, wanted positive relationship with patients, the respect to family needs. They wished to work in a practice with a friendly atmosphere, good business structure and support from senior GPs. A New-Zealand qualitative study, conduced in rural area, highlighted the importance of the environment and the status in the community for the GPs and their family (55). These qualitative studies found some themes of our research, but were more focused on the practice of the GP, which corresponds to their research question.

Comparison with studies using the Warr-Cook-Wall scale

Some studies used this job satisfaction scale to evaluate GPs' job satisfaction. The results of an Australian (60) study found that being female, a higher age, a good health behaviour and having a lower BMI were positively associated with job satisfaction. An other Australian study (54) found that professional satisfaction was correlated with freedom of choosing work method, variety of work, working conditions, opportunities to use abilities, amount of responsibility, and good relationships with colleagues. Goetz and al, in Germany (51) found that GPs were rather satisfied with their job with the exception of "hours of work," "physical working condition," and "income." As mentioned above, the questionnaire studies further assess the satisfaction of the working conditions of GPs, but do not study the satisfaction of GPs with patients.

GPs and University

Numerous studies have demonstrated the value of primary care training to attract young doctors to general practice (48,72,73). A Canadian qualitative study using the Delphi method (58) found that teaching, sharing knowledge and experience, and mentoring are rewards of family practice.

Next researches:

This qualitative research needs to be validated by further studies. The results must be disseminated to the stakeholders to improve the recruitment and retention of GPs in primary care. These findings and confirmations could lead to new research focused on GP job satisfaction. Maintain GP workforce is one of the major tasks of health systems throughout the European countries.

Conclusion

Freedom, conviviality and intellectual stimulation are positive factors to enhance General Practice attractiveness and retention. Satisfied GPs are the one who want to help the patient, and want to acquire skills and competencies for care. Some GPs' characteristics are necessary to be satisfied in their practice. It is necessary for the stakeholders to consider those specific aspects. It is necessary for the teachers in general practice to develop those characteristics in the training.

More analysis in detail and further research in other European countries are necessary to confirm these hypotheses. Policy makers need new indicators, synthesis and research about GPs' satisfaction in order to be able to enhance the GP workforce.

Ethics statement:

The Ethical Committee of the "Université de Bretagne Occidentale" (UBO), France approved the study for the whole Europe.

Consent to participate

The participants provided their written informed consent to participate in the study.

Author's contributions:

B Le Floch designed the study, collected data, drafted and revised the paper. H Bastiaens designed the study, collected data and revised the paper. JY Le Reste designed the study, collected data, drafted and revised the paper, P Nabbe revised the paper, T Montier revised the paper, L Peremans designed the study revised the paper.

List of abbreviations:

EGPRN: European General Practice Research Network

GP: General practitioner

GPs: General Practitioners

UBO: Université de Bretagne Occidentale, France.

WONCA: World Organization of National Colleges, Academies and Academic Associations of General Practitioners/Family Physicians.

Acknowledgements:

We would like to sincerely thank the European General Practice Research Network for his support in the survey.

The authors warmly thank all of the GPs and students who kindly gave their time to take part in this study.

The authors are grateful for the comments and suggestions provided by Alex Gilman and the work of C Bossard, F Bovay, J Bry, G De Chazal, J-P Hefner, S L'Echelard, P Le Grand and K Stolc.

Funding:

This project had an EGPRN funding of 8000 €.

Competing interests:

All authors hereby declare that they have co competing interests for this research

Availability of Data and Materials:

All data and materials would be sent on request at Département Universitaire de Médecine Générale, Faculté des Sciences de la Santé, 22 av Camille Desmoulins, 29200 Brest Cedex, FRANCE.

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Table 1: French codebook on GPs' satisfaction

French codebook on GPs' satisfaction			
	Themes	Codes	Some comments about the axial code.
1	The GP as a person	Some characteristics to become general practice	GP needs to have particular characteristics. There are all characteristics that make you a good GP.
2		Engage in General Medicine to take care of patients	The GP is motivated by the desire of care for people. This is a choice.
3		Maintain personal health (physical and mental)	Maintain personal health, physical and mental. Take care for yourself.
4		Ability to cope, to adapt	GP can adapt to any situation: different patients, different diseases, different contexts.
5		A doctor who knows his professional limits	Know his limitations on a professional, it cuts down mistakes.
6		Control level of involvement with patients	Having to control the level of involvement with patients. Spare his emotional toward patients. Put limits in the interaction but also be empathic.
8		Self-fulfillment in the profession GP	Growing as person and having human satisfaction with the profession
9		Being a doctor to help people	Being a GP to help people, to relieve them, to save them from disease and suffering

10	Satisfaction with work in General practice	Love his job	Love practice his job. Being passionate with your job
		Being proud of his profession	Doctors love their profession, they are proud to be GPs
11		Alternative activities (teaching, nursing homes, management…)	Additional activities that change the normal activity of primary care: Education, nursing homes ... Not to be confused with alternative medicine. Outside the care of MG strictly speaking.
12		Performing core competencies in general practice	Work using the skills of General Practice. Work using the skills of communication, clinical diagnosing, reasoning. Being a professional.
14		Wide range and heterogeneous activities	Having a varied activity, various health problems to solve, different patients. First access to care, all health problems. The feeling of being able to do a lot of thing.
15		Challenging situations in general practice	Experiencing extraordinary situations in the practice: treating a famous person, some emergencies, drug addiction…. live something special.
16	Patient's care and relationships	Doctors learn life experience with patients	Have enriching human experiences with patients: the human sense of GP's enriched with patients. GPs learn life with patients.
17		Being there for the patient	Reply to this patient is available, be there when needed. Empathy and availability for patients. Some of the doctors are proud.
18		Successful negotiation with patients	Negotiate with patients to make them accept support. Give a good feeling to the doctor
19		Being a doctor of the whole family	GPs may care for several members of the family, or for several generations. It is a good satisfaction, and a special relationship.
20		Trust Patient GPs	There is a mutual trust between GPs and patients.
21		Rich human relationships	Having rich human relationship with the patient

22		Patients are free to choose their GP	Patients are free to choose their doctor. And doctor is free to accept them. This gives a special contract between patient and doctor.
23		Respect in doctor patient relationship	Respect in doctor patient relationship
24		Patients' gratitude	Patients' gratitude: giving presents, in the communication.
25		Comprehensive approach	Comprehensive approach: communication, health professional, clinical reasoning.
26		Holistic approach for GP	Not only the medical problems but also the patient as human being. Understand the perspective of the patient, his/her perspective and his/her personal vision.
27		Patient centered care	Patient centeredness of GPs, Understand the perspective of the patient, his perspective, his personal vision.
28		Longitudinal care	Aging with his patients. Enhanced relationship over time.
29		Dealing with the care management and ethical questions.	Dealing with the care management. Finding a balance with rules and patients concerns.
30		Effective medical management of patient	Successful medical management of patient. Having success stories. Doing a special diagnose. Provide education of the patient in the medical sense.
31		GP as a coach for life style changes	Being a doctor can change the patient, the society. Changing lives. A coach for life change
32	Skills, competencies and satisfaction	Learning while practicing	Learn throughout the year, by fulfilling the skills acquired by the patients' pathologies. Experience enhance professional skills
33		Performing core competencies in general practice	Work using the skills of General Practice. Work using the skills of communication, clinical diagnosing, reasoning. Being a professional.

34		Intellectual stimulation	The intellectual aspect of the profession of general practitioner
35		Reflexive practice. specific problems skills	Having a reflective practice. Resolve specific problems.
36		Continuous Professional Development	Doing continuous medical education to acquire or complete new skills. Help a professional to be more competent.
37	Practice organization Autonomy in practice	Having a competent practice support team	Having a competent secretary, practice assistant, nursing team working for you.
38		Having necessary technical conditions to work	having necessary technical conditions to work (in clinic and support from others medical specialties, paramedics)
39		Be attractive for young GPs	Be attractive for young GPs. Keep your practice attractive for young GPs to associate, working with you, or succession.
40		Independence/freedom for work organisation	Have the independence, autonomy, and freedom in work organization. Includes the equipment cabinet, technical equipment, how to treat patients. Manage work organisation. Being his/her own chief.
41		Organized out of hours service	Organized out of hours service (nobody disturbs me after hours)
42		New types of financial compensation	Have new types of compensation. Fee for, the package, according to performance. Salaried. It depends on the existing system in every country.
43		Fair balance between money and workload	Personal level of balance between money and workload. Being satisfied with the amount of money you earn for the work you do. Free to organize work life balance.
44	Relationship with the professional community	Harmonious professional relationships	Have good relations with the professional community, with colleagues. Make continuing medical education to improve relations with the business community. Improve patient care.
45		Coordinator of care	General medicine in the center of care, the link between others specialities. Support from others medical specialties.

46		Work with happy colleagues	Work with happy colleagues. Have a good work atmosphere in practice.
47		Success in starting your own practice	Installation: a good start in the career, enjoy the success of the first years. If you make a good start, you will have more chance to continue.
48		Free choose location of the practice	Choose where you work. By choice or by origin or opportunities. Have a nice place to work.
49		Freedom in the choose of colleagues	Having the opportunity to choose colleagues, as well as the way to work.
50		Advantages of working in a group practice	Advantages of working in a group practice or an interprofessional team.
51	GPs and University	Feeling than medical curriculum is oriented to General Practice	Medical practice must be more visible during the medical studies. Importance of clerkship in General Practice. Necessity to adapt the initial training of general practitioners to have a more satisfied practice
52		Teaching (clinical, academic)	Being a teacher of general medicine, and tutor. Doing research.
53		Relationships with students and trainees	Having good relationships with students and trainees. Being a positive role modelling of senior GP.
54		Mutual enhancement of GPs and trainees	Trainees learn from GPs and GPs learn from trainees. This changes the perspective of the work.
55		Recognition of general practice (as a speciality)	Recognition of General Medicine: as a specialty by the university, the public authorities. Respect of official organisations, making it a real speciality.
56	GP in the social community	Being part of the community	Living in a community. Having good social contacts in the community. Having a broader vision on the patients. Having good relationships with patients outside the practice.
57		General practice as a respected profession	General Medicine is a respected profession. Social and medical community respects GPs.

58		Necessity to have good income	The aspect of income is important.
59		Choose his role in the social community	Choose participate or not in the social community. Choose his involvement in society.
60	Private life, relatives and family	Having free time (hobbies, leisure…)	having free time; Personal quality time
61		Manage professional and private life	Choosing how to put limitations, not taking work at home, not disturbing on Sundays.
62		Complete family life	Have a complete family life, the opportunity to have nice holidays: money, time for it.
63		Facilities for family	Spouse employment, facilities for children (schools, leisure…)
64		Family and social support	Good influence of GP social network (family, friends). The family is involved in the professional choice: parents, spouses and children.
65		Outsources the house work	Having the opportunity of outsourcing work at home
66		GPs family benefits	Interest and other benefits for the family of GP (health, fame) …
67		Choose whether to care friends and family	It can be valuing or difficult to treat friends and family. It is possible to choose.

Chapter 5: A European qualitative multicenter study

Research Title:

Which positive factors give General Practitioners job satisfaction and make General Practice a rewarding career? Creating a codebook from a qualitative multicenter study by the European General Practice Research Network.

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Abstract:

Objectives: To explore the positive factors supporting the retention of General Practitioners (GPs) in clinical practice throughout Europe.

Setting: Primary care in eight European countries: France, Belgium, Germany, Slovenia, Bulgaria, Finland Poland and Israel.

Design: Qualitative study, employing face-to-face interviews and focus groups using a phenomenological approach. A thematic qualitative analysis was performed following the process described by Braun and Clarke. Codebooks were generated in each country. After translation and back translation of these codebooks, the team clarified and compared the codes and constructed one international codebook used for further coding.

Participants: A purposive sample of 183 GPs, providing primary care to patients in their daily clinical practice, was interviewed across eight countries.

Results: The international codebook included 31 interpretative codes and six themes. Five positive themes were common among all the countries involved across Europe: the GP as a person, special skills needed in practice, doctor-patient relationship, freedom in the practice and supportive factors for work-life balance. One theme was not found in Poland or Slovenia: teaching and learning.

Conclusion: This study identified positive factors which give GPs job satisfaction in their clinical practice. This description focused on the human needs of a GP. They need to have freedom to choose their working environment and to organize their practice to suit themselves. In addition, they need to have access to professional education so they can develop specific skills for General Practice, drawn from WONCA's core competencies, and also strengthen doctor-patient relationships. Stakeholders should consider these factors when seeking to increase the GP workforce.

MeSH Terms:

Adult; Career Choice; Career Mobility; Family Practice; General Practitioners; Health care system; Humans; Job Satisfaction; Physician; Primary health care.

Key points:

- Little was known about job satisfaction within General Practice in Europe.

- This study is the first European multicentre qualitative research on the topic of GP job satisfaction.

- Complete and complex data was collected from eight European countries which provided an in-depth exploration of GPs' positive feelings.

- Everywhere throughout Europe, a GP is a person with generic needs in both his/her private and his/her working life, with specific needs related to the development of specific competences. GP job satisfaction is associated with freedom to choose his/her working environment, efficient organization of the practice, doctor-patient relationships and WONCA's core competencies for General Practice.

Introduction:

The low appeal of General Practice and primary care as a career option is a recurrent problem for healthcare systems throughout Europe, USA and other countries in the Organization for Economic Cooperation and Development (OECD) [1,2]. A high-performing primary healthcare workforce is necessary for an effective health system. However the shortage of health personnel, the inefficient deployment of those available, and an inadequate working environment contribute to shortages of consistent and efficient human resources for health in European countries.

The European Commission projects the shortage of health personnel in the European Union to be 2 million, including 230 000 physicians and 600 000 nurses, by the year 2020, if nothing is done to adjust measures for recruitment and retention of the workforce [3].

Research has shown a strong workforce in General Practice is needed to achieve a forcefulness balance between the use of economic resources and efficient care for patients. [4].

Most of the research focused on the GP workforce concentrated on negative factors. The reasons students did not choose this as a career or GPs were leaving the profession were widely explored. Burnout was one of the most frequently highlighted factors [5]. In many OECD countries, apart from the United Kingdom, the income gap between GPs and specialists had expanded during the last decade, promoting the appeal of other specialties for future physicians [6]. Health policy makers, aware of the problem of a decreasing General Practice workforce, tried to change national policies in most European countries to strengthen General Practice. Health professionals respond to incentives but financial incentives alone are not enough to improve retention and recruitment. Policy responses need to be multifaceted [7]. Dissatisfaction was associated with heavy workload, high-levels of mental strain, managing complex care, expectations of patients, administrative tasks and work-home conflicts. Focusing on these issues created a negative atmosphere [8][5][9][10]. In the above mentioned report of the European commission on recruitment and retention of Workforce in Europe, the authors used a model of Huicho et al. as a conceptual framework to analyze the situation [11]. Attractiveness and retention are two outputs used in the model. Retention is determined by job satisfaction and duration in the profession.

The concept of job satisfaction is complex as it changes over time according to social context. Locke's definition is widely used: "Job satisfaction is a pleasant or positive emotional state resulting from an individual's assessment of his or her work or work experience" [12]. However, there is a weak relationship between enjoyment and satisfaction, suggesting that other factors contribute to job satisfaction [13,14]. Furthermore, job satisfaction theories overlap considerably with theories explaining human motivation. The most common and prominent theories in this area include: Maslow's needs hierarchy theory [15] and Herzberg's [13,14] motivation-hygiene theory. Among these theories, Maslow expanded the "needs hierarchy theory" and applied it to job satisfaction. Developed in the 1940s, this theory hierarchized five needs which, when satisfied, are no longer motivating factors: physiological needs and security needs, the need for social relationships, the need for esteem, the need for self-realization or self-actualization: the desire to progress, to flourish and to satisfy creative aspirations and the need for a sense of innovation [15]. Although this model provides a theoretical lens to examine job satisfaction, it is not known

whether or how it may apply to GPs. Nevertheless, it provides a starting point from which to build a model of what constitutes job satisfaction in General Practice.

Herzberg's motivation-hygiene theory suggests that job satisfaction and dissatisfaction are not two opposite ends of the same continuum, but instead are two separate and, sometimes unrelated, concepts. "Motivating" factors like pay and benefits, recognition and achievement need to be met in order for an employee to be satisfied with his profession. Working conditions, company policies and structure, job security, interaction with colleagues and the quality of management, called "Hygiene" factors, are associated with job dissatisfaction. According to Herzberg's theory, it was important to investigate the positive angle separately in order to understand which factors give GPs job satisfaction. That was the focus chosen by the research team.

The literature highlighted the poor quality of the research about job satisfaction within European General Practice. Most studies were carried out by questionnaire, [16] focusing on issues of health organization or business and did not reach the core of GP daily practice. Some studies had confusion bias caused by authors' pre-requisites on the attractiveness of General Practice [17]. In most publications research was not about global satisfaction but only about "Hygiene" factors. Surprisingly few qualitative studies explored the topic [18,19]. Literature did not show an overall view of GPs' perception of their profession. It was not certain that these positive factors were similar across different cultures or in different healthcare contexts. Consequently, research into positive factors, which could retain GPs in practice, would help to provide a deeper insight into these phenomena.

The aim was to explore the positive factors supporting the retention of General Practitioners (GPs) in clinical practice throughout Europe.

Method:

Research network

A step-by-step methodology was adopted. The first step was to create a group for collaborative research [20,21]. The EGPRN created a research group with researchers from Belgium (University of Antwerp), France (University of Brest), Germany (University of

Hannover) and Israel (University of Tel Aviv), Poland (Nicolaus Copernicus University), Bulgaria (University of Plovdiv), Finland (University of Tampere) and Slovenia (University of Ljubljana).

The research team decided to conduct a descriptive qualitative research study, from the GPs' perspective, in each participating country [22,23]. The first interviews were completed in the Faculty of Brest, in France. The aim was to pilot the first in-depth topic guide.

Participants

GPs were purposively selected locally using snowballing in each country. Participants were registered GPs working in primary care settings. To ensure diversity, the following variables were used: age, gender, practice characteristics (individual or group practices), payment system (fee for service, salaried), teaching or having additional professional activities. The GPs included provided their written informed consent. GPs were included until data saturation was reached in each country (meaning no new themes emerged from the interviews) [22,24,25].

Overall, 183 GPs were interviewed in eight different countries: 7 in Belgium, 14 in Bulgaria, 30 in Finland, 71 in France, 22 in Germany, 19 in Israel, 14 in Poland and 6 in Slovenia. In each country, the principle of obtaining a purposive sample was observed and GPs were recruited until data sufficiency was reached. Four qualitative studies were achieved in France. In France, it was always the intention to create more surveys and include more participants than in the other countries, with a view to exploring potential differences between practice locality, gender, type of practice and teaching activities. One study was carried out by five focus groups, which brought together 38 GPs; the three other studies used individual interviews (11 participants, 6 participants, and 14 participants). The other countries conducted one qualitative study each. The research activities were undertaken in Germany by focus groups, in Israel using focus groups and individual interviews and in the other countries by individual interviews.

Study procedure and data collection

The research team discussed every step of the study, in two annual workshops, during EGPRN conferences, within the duration of the study.

As there were few examples in the existing literature and, as the existing models of job satisfaction were more oriented towards employees working in a company, the international research team developed an interview guide based on their prior literature review [17]. The guide was piloted in France and was adapted and translated to ensure a detailed contribution from the GPs interviewed and, subsequently, a rich collection of qualitative data in each country. Local researchers conducted the interviews in their native language. The GPs were first asked to give a brief account of a positive experience in their practice (ice-breaker question)[22]. Then the interview guide (table 1) was used to encourage GPs to tell their personal stories, not to generate general ideas but to focus on positive aspects.

To ensure a maximal variation in collection techniques, in order to collect both individual and group points of views, interviews and focus groups had to take place. Saturation (no new themes emerging from data) had to be reached in each country [22].

Table 1: interview guide

Topic 1	In the life of a General Practitioner, there are pleasant experiences. Could you tell us about one?
Topic 2	What makes you happy in the profession of General Practitioner? What motivates you to go to work every morning? Factors related to the job content
Topic 3	Factors concerning a satisfying practice organization, location, collaboration
Topic 4	What makes for work-life balance, especially where the family is concerned?
Topic 5	The significance of the GP's residential environment?
Topic 6	Coping strategies to overcome difficulties

Data analysis

A thematic qualitative analysis was performed following the process described by Braun and Clarke [26].

In each country, at least two researchers inductively and independently analyzed the transcripts in their native language using descriptive and interpretative codes. They issued a verbatim transcript of one particular part of, or sentence from, the interview to illustrate every code in the codebook. Each code was extracted in the native language and translated into English. Then the whole team discussed the codes several times in face-to-face meetings during seven EGPRN workshop meetings. The research team merged the national codes into one unique European codebook. During a two-day meeting, the research team performed an in-depth exploration of interpretative codes and a final list of major themes was generated. Credibility was verified by researcher triangulation, especially during data collection and analysis. During the EGPRN workshops, peer debriefings on the analysis and the emerging results were held. Interviewers and researchers from such diverse backgrounds as psychology, sociology, medicine and anthropology reflected on the data from their own researcher's perspective.

Results

Table 2 gives an overview of the characteristics of the participants. The mean age was high which is an indication of a long duration in the profession.

Table 2: Characteristics of the GPs interviewed

Characteristics of the GPs interviewed						
Country	**# of GPs interviewed**	**Gender**	**Age average**	**Type of Practice**	**Practice Location**	**Teaching**

		M	F		Single-handed	Group	Urban	Semi-rural	Rural	Yes	No
Belgium	7	4	3	52	3	4	4	3	0	4	3
Bulgaria	14	3	11	49.9	11	3	11	2	1	n/a	n/a
Finland	30	14	16	49.4	10	30	17	3	10	6	24
France	71	35	36	48.8	25	46	40	5	26	28	43
Germany	22	13	9	52	12	10	8	0	14	11	11
Israel	19	6	13	50.6	n/a	n/a	17	0	2	n/a	n/a
Poland	14	5	9	47	8	6	8	2	4	5	9
Slovenia	6	2	4	55.3	4	2	0	3	3	2	4
Total	**183**	**82**	**101**	**49.8**	**74**	**100**	**106**	**20**	**57**	**56**	**93**

Six main themes were found during analysis. The results are summarized in the appendix 1: International codebook on GP satisfaction.

GP as a person

The analysis of the data showed that the GP was a person with intrinsic characteristics, including interest in people's lives, with a strong ability to cope with different situations and patients. GPs loved to practice and the passion for their job was more important than the financial implications.

"I also work with a very heterogeneous population, ultra-religious and secular, from various countries of origin" (Israel).

"Really pleasant to work with patients, it's not only the financial aspect" (Bulgaria)

"I work for pleasure. I don't do it for the money. If I don't like it anymore I'll stop doing it" (Belgium)

GPs said they wanted to stay ordinary people with a strong need to take care of their personal wellbeing. This was more than just having time for hobbies and leisure. GPs were looking for other intellectual challenges and personally enriching activities in their free time.

"General practice is a beautiful profession but you are on your own too much, even in a group practice. You see the community from a limited perspective. It's important to keep in touch with the community. The fact remains that you are probably a father or mother or a partner, as well as being a physician. It's interesting to have a different perspective: it broadens your way of thinking. Reading books is the same. It's essential to read good books and to empathize with the characters. This is enriching for you as a human being, but also for your practice." (Belgium).

GPs wanted to be there for their patients, finding common ground with them, but they also wanted to control the level of involvement with their patients. They described the ability to balance empathy with professional distance in their interaction with patients and being able to deal with uncertainty in the profession.

The GPs as a person theme was important as all the above conditions were required in order to be a satisfied GP who wishes to remain in clinical work

GP skills and competencies needed in practice:

GPs reported satisfaction about making correct diagnoses in challenging situations, with low technical support, and being rewarded with patients' gratitude. The intellectual aspect of medical decision-making led to effective medical management and was a positive factor for GPs. General practice is the first point of care for the patient and GPs felt themselves to be the coordinators and managers of care and the advocates for the patient. To be the key person in primary care requires strong inter-professional, collaborative skills and effective support from other medical specialties and from paramedics.

GPs believed that it was highly important to be an efficient communicator to perform all these tasks. GPs were patient-centered and wanted to provide care using a comprehensive and a holistic approach. A patient centered approach is a WONCA core competency of General Practice while efficient communication with the patient is a generic skill for all health workers.

They wanted to bring together a broad medical knowledge with a high level of empathy, balancing the patient's concerns with official guidelines. Guiding the patient's education was an important role for the GP, who was also a coach for life style changes. This theme was linked to the holistic model for General Practice which is also a WONCA's core competency

"To be both competent and do a bit of everything" (France).

"This is intellectually extremely stimulating and challenging work" (Finland).

"Happy and satisfied when making the correct diagnoses" (Bulgaria).

"The patient arrives and thanks me for the good diagnoses" (Poland)

"You don't just see common colds during the day. You get interesting cases and you have time to explore them. This makes general practice interesting. It's a 360° job. Variation is important". "It's our task to empower young Muslims to encourage them to study well, to become nurses or physicians". Belgian GP

Doctor-patient relationships

Patients are free to choose their GP and this is important because of the particular aspects of the doctor-patient relationship in primary care. There was a strong relationship between the GP as a person and the GP who enjoyed a rewarding, interpersonal relationship with patients. GPs had enriching human experiences with patients which was important to the physician's self-fulfillment as a human being. Mutual trust and respect in their relationships were important dimensions. Being a patient-centered physician was a rewarding challenge.

GPs felt they were a part of the patient's environment, but with the need to set their professional limits. GPs learned about life through their patients.

GPs said they were ageing with their patients and had a long-term relationship with some of them. They were "real family doctors" and often cared for several generations.

They saw babies grow up and become parents themselves. These unique doctor-patient relationships enhanced GP satisfaction.

"I am the doctor for this whole family and in general practice that is something important" (France).

"Some I got to know when they were small kids and they still come to see me at the age of 18 or older." (Germany).

"We know much more about them than other doctors, because our patients have chosen us" (Bulgaria).

"We accompany patients, throughout pregnancy, cancer and death and from the moment before birth until the age of 99 years and over" (Germany).

"Patients asked for a home visit and insisted I join them at their meal and sometimes I did that but only when they were more like friends… I've had a lot of invitations to weddings…" (Belgium)

GPs also like to negotiate with patients, to help them to make decisions but also to motivate them to make lifestyle changes.

Autonomy in the workplace

Freedom in practice was closely related to work organization, which was important in all countries.

GPs stayed in clinical work if they had chosen their own practice location. The living environment needed to be attractive for the family. GPs wanted to apply personal touches to their consulting rooms, to make choices in the technical equipment they used which suited their personal requirements.

Even more important was the possibility of choosing work colleagues who shared the same vision of General Practice. Satisfied GPs contributed to the organization of the practice and were influential in decisions about work and payment methods. Where there was a salaried system, GPs wanted to earn a reasonable salary to have a satisfying work-life balance.

Flexibility at work is not to be interpreted as a demand from the management to be flexible in working hours but to have the flexibility to make one's own choices. Most GPs preferred additional career opportunities such as teaching, working in a nursing home and conducting research. To fulfil all these conditions GPs wanted to work in a well-organized practice with a competent support team, with a secretarial service, practice assistants and the necessary technical equipment.

Another condition was an organized out-of-hours service. GPs did not want to be disturbed outside practice hours without prior arrangement.

"This is the most important in our practice that I decide when and how to work" (Bulgaria).

"If someone says that a practice room must be completely impersonal, it has to be interchangeable. I understand this. It's respectful towards the others but a personal touch is important for communicating something about yourself to the patient. That is important." (Israel).

"It is important to have one's own organizational systems and equipment" (France).

"I didn't have to do night shifts" (Poland).

Teaching General Practice

GPs wanted to acquire new medical knowledge and learn new techniques. They liked to transmit the skills of their job. As they were proud of their profession, they wanted to teach and to have an effective relationship with trainees. Teaching contributed to feelings of satisfaction with the profession. GPs mentioned the importance of training in attracting junior colleagues and the positive aspect of the mutual benefit to GPs and trainees. Teaching gave GPs more incentives for their own continued professional development and enabled them to complete their competencies. GPs feel gratified where general medicine is recognized as a specialty at the university and by the public authorities.

"Guiding younger colleagues is the most rewarding part of my job" (Finland).

"I like to transmit what I have learned" (France).

"I was a tutor for a seminar group, teaching, I like to do that, those people had to learn, that was very pleasant" (Belgium).

"I am teaching General Practice to students and I have found I have a flair for it. It is really fun!" (Germany).

"I feel good accompanying young trainees through the process of making their choices" (Belgium).

"All that you do in teaching (trainees), transmitting your knowledge to another, improves your accumulated experience. You see yourself through the eyes of others" (Israel).

Supportive factors for work-life balance

Factors that supported an efficient work-life balance were the possibility of having a full family life, with a social support network and the opportunity to benefit the whole family by enjoying holidays, money and free time. Money was not the most important issue, but income needed to be sufficient a comfortable family life, meaning sufficient resources for a satisfying education for the children and the possibility of having regular holidays. GPs find

they have job security which enables them to feel secure and free from unemployment worries.

GPs wanted to choose how to separate professional and private life. They wanted to have social contacts in the community, which would give them a broader perspective in terms of their patients. Having relationships with patients outside the practice was important. GPs needed to be part of the social community if they were to stay in General Practice. GPs wanted to have a full family life and to keep free time for this.

"I could have my family, my wife involved" (Poland).

"I try to keep my Wednesday afternoon free to stay at home. I now set out my priorities. If something happens with the children, I change my work" (Belgium).

"Family Medicine is an opportunity to be with the family" (Israel).

"My family supports me" (Bulgaria).

"I try to keep work and leisure time away from each other... It is important in terms of coping. In my leisure time I have a different role from that of a doctor" (Finland)

Country specific themes

Besides those international themes there were some country specific results.

In Poland and in Slovenia even when they were prompted in the interviews, GPs did not mention the importance of teaching.

Belgian GPs stressed the importance of discussing the vision and mission involved in starting a group practice. They took time for this process and wanted junior colleagues in practice who would share their vision and their mission. Statements needed to be updated regularly to meet the needs of a changing society and the challenges in health care. Group practices used external coaching to overcome problems.

French GPs were very attentive to the need for organized continuity of care. The GPs wanted to be there for their patients, but they also wanted to protect their personal lives. The word "vocation" had a religious connotation that displeased some GPs.

Finish GPs appreciated the stimulating working community and multidisciplinary teamwork. In addition, they valued the set working hours and professional development work available in the workplace.

Israeli GPs were proud of their respected position. They preferred a private practice in their own style.

For Polish GPs, there were positive developments in financing medicine, which were providing better opportunities for an effective work-life balance. In Poland, there was a theme, which favoured having a strong union that can influence policy. It gave the GPs an identity as a group.

Discussion:

Main results

Throughout Europe common positive factors were found for attracting GPs and retaining them in clinical practice. One of the main characteristics of GPs was the need for specific competencies for managing care and communicating with patients. They needed to cope with problems during their career and professional collaboration. GPs were stimulated by intellectual challenges, not only within the profession but they also wanted enough time for personal development outside the workplace, to counterbalance the stress of daily practice.

Positive GPs are persons with intrinsic specific characteristics (open-minded, curious) and they feel comfortable in their job when they are trained in specific clinical and technical skill areas and have efficient communication skills. The long-term doctor-patient relationship is perceived positively by the GPs. They love teaching all these specific skills to younger GPs and appreciate the feedback and mutual benefit to be found in teaching activities. Finally, GPs need policy support for well-managed practices and out-of-hours services to maintain their optimal work-life balance.

Strengths and limitations of this study

To our knowledge, this is the first European multicentre qualitative study on this topic [17,27]. This study collected complete and complex data from eight countries.

Credibility and transferability

Credibility was verified by researcher triangulation, especially during data collection and analysis. During the workshops, peer debriefings on the analysis and the emerging results were held. Interviewers and researchers from such diverse backgrounds as psychology, sociology, medicine and anthropology reflected on the data from their own researcher's perspective. As the results in several countries with different healthcare systems were very similar, the transferability of data seems possible.

The main weakness was a possible interpretation bias. The 183 GPs provided very rich data in several languages. It was the strength of this research, but also a difficulty. The analysis and interpretation of the verbatim analysis was a linguistic and cultural problem. A different classification of themes could be achieved, but this was limited by the group meetings and the massive number of emails, phone discussions and Skype® discussions required during the research process.

The number of GPs interviewed varied in the different countries, potentially leading to differences in the informational detail and in the depth of the analysis of the interviews/focus groups. However, data saturation was reached in all settings, limiting this possible bias. The first studies in France included a large number of participants. The first study included 38 participants. These studies were useful in defining the design of the research. Consequently, the later studies included fewer participants and saturation was achieved more quickly. Ultimately, it is plausible to suggest that the first results might have influenced the later studies.

Discussion of the findings

The theme "GP as a person" was highlighted in this study and in the literature review [17]. The studies found this special identity for GPs was linked to their intrinsic characteristics.

The theme of “GP as a person” was important in each of the European countries. A GP is, of necessity, someone with a specific personality, which is suited to General Practice. GPs like to take care of people [28] *Feeling of caring »* [29]. “*I can have a big impact on people’s lives*” [28]. This is a strong personality characteristic in a GP which policy-makers might take into consideration when formulating policies which concern the medical workforce.

The GP skills and competencies were found in literature[17,30] but in a more restricted form. They focused on an effective medical management of the patient and the subsequent feeling of being competent. In a Scottish qualitative study, GPs highlighted the satisfaction derived from the perception of the consultation outcome. *“Although clinical competence was an integral part of the doctors’ satisfaction, they alluded to personal attributes that contributed to their individual identity as a doctor”* [31]. “*Take care of them and do the best you can”* [28]. In our study we identified all WONCA core competencies and this is important [4]. Validation of WONCA’s characteristics and competencies in hundreds of interviews across eight European countries shows the strength of the WONCA theorem and common characteristics between GPs wherever they work. The analysis of the data demonstrated a strong link between competence and satisfaction. It is necessary to give general practitioners the opportunity to acquire and improve these skills.

The importance of the doctor-patient relationship was described as an effective factor in job satisfaction for the General Practice workforce [32][33]. Nevertheless, previous studies concentrated less on the rewarding nature of the relationship, its long duration and the mutual interaction.

Freedom to manage the workplace organization has been described and is confirmed here. It does not prevent long working hours but focuses on the organization of the practice [34][35][36]. There was consistent evidence that GPs needed freedom for work satisfaction [37]. GPs wanted autonomy in their work [18]

The teaching and learning activities have been described and this study confirmed their importance. Academic responsibilities provide positive stimulation and new perspectives for GPs [18][37][38]. They wanted to be recognized by the academic world. Clerkships in General Practice were seen as extremely important for attracting students to a career in General Practice [39]. The influence on students was important for their career choice [40]. The practice of clinical teaching in initial medical education, with positive role modelling, was also important [41][42].

Furthermore, there was a strong link between the GP, his/her family and the community they are living in. This was especially true for those practising in rural areas [40] [43]. The GP’s family is sensitive to the fact that General Practice is a respected profession. Outside their

professional role, other forms of satisfaction were important, such as having strong social support from schools, leisure activities and a satisfying quality of life in the residential environment [44], and of course, the importance of an income in balance with their heavy workload.

Comparison with job satisfaction theory

The results of this qualitative study suggest that the “hygiene factors” of Herzberg [13,14] could be considered as positive factors by GPs. Within the theme “Freedom in work organization”, different codes were found: efficient professional collaboration, freedom of choice in the workplace, involvement in the health system, well-managed practice and flexibility in work. Those codes could be considered by Herzberg as “hygiene factors” and associated with job dissatisfaction if they were not reported. We found them to be positive factors. In terms of these “hygiene factors”, our findings are consistent with the Herzberg model.

There are “Motivating” factors, such as income, recognition (General Practice as a respected profession; patients' gratitude) and achievement need (recognition of General Practice as a specialty; a highly intellectual profession). Some themes were not developed in the Herzberg theory (GP as a person; teaching and learning and the particular themes about the patient). The differences between the findings and the Herzberg theory confirmed the hypothesis that GP job satisfaction is quite specific where certain factors are concerned.

The themes developed by Maslow [15] in his theory were found in the study: the need for social relationships, the need for esteem, the need for self-realization, the desire to progress. The need to flourish could be found in the GP patient relationships but in a specific way.

Finally, the results highlight a particular theory to describe GP satisfaction which focuses on human relationships, specific competencies, patients and the social community.

Implications for medical education and practice:

Learning the core competencies of General Practice in initial and continuous medical education is very important and should lead to extended educational programs in Europe.

Mobilizing stakeholders is a necessary condition of success however it is not sufficient [7].

To improve the attractiveness of general practice, universities should organise a specific selection process for GPs, not just for specialists. This might engender greater respect for the profession.

Roos et al performed a study by questionnaire on the “motivation for career choice and job satisfaction of GP trainees and newly qualified GPs across Europe” [16]. The most frequently cited reasons for choosing General Practice were “compatibility with family life,” “challenging, medically broad discipline’, “individual approach to people”, “holistic approach” and “autonomy and independence”. The current study has focused on working GPs and not on trainees, but some of the results overlap Roos’ research.

It remains essential to teach undergraduate medical students the bio-medical aspects of general practice, but it is also necessary to teach the management of primary care, interprofessional collaboration and communication skills. Trainees need to think about their own wellbeing and to learn to cope with problems in daily practice. The intellectual aspect of General Practice is important. Decision-makers should use all the means at their disposal to promote the profession by providing continual development.

GPs want to be involved in the management of their practice. Stakeholders should be aware and very cautious about this topic which is described as extraordinarily sensitive. Systems that try to administrate GP practices, without involving the GPs, should be aware that they will experience difficulties.

Implications for research:

Further studies would be useful with the objective of studying which satisfaction factors have the greatest impact on recruitment and retention in General Practice.

This description of satisfied GPs will be disseminated throughout Europe to implement new policies for a stronger GP workforce. This may assist the international research team in the design of further studies to investigate the links between these positive factors and the growth of the GP workforce. At this stage, the research team will test the usefulness of each positive factor in helping each country to design efficient policies to increase its workforce.

Conclusion

Throughout Europe, GPs experience the same positive factors which support them in their careers in clinical practice. The central idea is the GP as a person who needs continuous

support and professional development of special competencies which are derived from the WONCA's core competencies. In addition, GPs want to have freedom to choose their working environment and organize their own practice and work in collaboration with other health workers and patients.

Stakeholders should be aware of these factors when considering how to increase the GP workforce.

Ethics statement:

The Ethical Committee of the "Université de Bretagne Occidentale" (UBO), France approved the study for the whole of Europe: Decision N ° 6/5 of December 05, 2011.

Consent to participate

The participants provided their written informed consent to participate in the study.

Contributors:

B Le Floch designed the study, collected data, drafted and revised the paper. H Bastiaens designed the study, collected data and revised the paper. JY Le Reste designed the study, collected data, drafted and revised the paper. H Lingner collected data and revised the paper. S Csachowsky collected data and revised the paper. A Sowinska revised the paper. R Hoffman collected data and revised the paper. P Nabbe revised the paper. R Assenova collected data and revised the paper. T Koskela collected data and revised the paper. Z Klemenc-Ketiš collected data and revised the paper. T Montier revised the paper. L Peremans designed the study, collected data and revised the paper.

List of abbreviations:

EGPRN: European General Practice Research Network

GP: General practitioner

GPs: General Practitioners

n/a : not applicable

UBO: Université de Bretagne Occidentale, France.

WONCA: World Organization of National Colleges, Academies and Academic Associations of General Practitioners/Family Physicians.

Acknowledgements:

We would like to sincerely thank the European General Practice Research Network for its support in the survey.

The authors are grateful for the comments and suggestions provided by Alex Gillman and the work of C Bossard, F Bovay, J Bry, G De Chazal, J-P Hefner, S L'Echelard, P Le Grand and K Stolc.

The authors warmly thank the 183 European GPs who gave their time for the interviews.

Funding:

This work was supported by EGPRN with a funding of 8000 €.

Competing interests:

All authors hereby declare that they have no competing interests in this research

Availability of Data and Materials:

All data and materials will be sent on request to Département Universitaire de Médecine Générale, Faculté des Sciences de la Santé, 22 av Camille Desmoulins, 29200 Brest Cedex, FRANCE.

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Appendix: International codebook on GP satisfaction.

International codebook on GP satisfaction		
Themes	**Codes**	**What does it mean?**
A - GP as a person	Love job	Love their profession and practising medicine. GPs are passionate about their job. They are proud to be GPs; They like working and find pleasure in going to work.
	Taking care of yourself as a person	GPs find self-fulfilment in their profession. GPs need to have time for personal activities, free time (hobbies, leisure, sport…) besides their profession. They maintain personal health (physical and mental). GPs control their level of involvement with patients. A doctor knows his/her professional limits.

	Going into General Practice as a vocation	Being a GP is a vocational choice. A GP has to focus on quality of work rather than money. The GP wants to be an ordinary person, as far as possible; Doctors want to be GPs to help people, to relieve their pain, to save them from disease and suffering.
	Ability to cope	The GP can adapt to any situation: different patients, different diseases and different contexts. The GP has the ability to think positively.
B - Special skills/competencies needed in practice	A highly intellectual profession	The GP likes challenging situations in his/her practice and is proud of making a good diagnosis. GPs need to have a good level of skills and competencies to be happy. The GP is the first point of access to care and can find a solution to all types of health problems.
	Primary care management	The GP is the coordinator for the patient. General medicine is at the centre of care and the link between other specialties. The GP feels in charge of the patient, deciding the management of his/her care.
	Efficient communication skills	The GP has good communication skills. He/she needs to have a comprehensive approach to the patient. The GP considers the patient's perspective, including the psychological, cultural and existential aspect. The patient is the most important person.
	Broad scope of activities	The doctor in primary care has wide ranging and diverse activities, various health problems to solve, different patients. The GP promotes health and wellbeing and provides acute and chronic health care. He/she has to find a balance between references and patients' concerns.
C - Freedom in work organisation	Efficient professional collaboration	The GP wants a reflective practice, to have the opportunity to reflect with colleagues. The GP needs harmonious professional relationships, within the professional community. The GP wants to work with happy colleagues, and to have a good work atmosphere in the practice.
	Freedom of choice in workplace	GPs want to choose practice location and colleagues. They want to have a nice place to work. They choose their workplace according to their origin or according to opportunities.
	Involvement in the health care organisation	GPs want to be involved in how they are paid. A GP wants to manage his/her own work organisation. A GP wants to be his/her own boss.
	Well-managed practice	GPs like a competent practice support team with an efficient secretary and team working for them. They want an organized out-of-hours service. They need essential technical equipment and support from other medical specialties and paramedics.

	Flexibility in work	GPs have the opportunities, if they want, to engage in other professional activities besides being a GP, with activities that change the normal activity of primary care: Education, nursing homes, sport medicine, expertise ...
D - Doctor-patient relationships	Patients' gratitude	GP are proud to receive the patients' gratitude. Patients give them presents, or communicate their gratitude.
	Longitudinal care	GPs enhance relationships over time. They have a long-term commitment to the patients; they are aging with their patients.
	Trying to be a person-centred doctor	The GP, being person-centred, considers not only the medical problems but also the patient as a human being. The GP understands the perspective and the personal vision of the patient. The GP provides care using a holistic approach.
	Successful negotiations with patients	The GP likes to negotiate with patients to help them to accept support, treatment and lifestyle changes. This gives the GP professional satisfaction. Patients are free to choose their GP, and GPs are proud to be chosen by them.
	Rich human relationships with patients	GPs learn about life and have enriching experiences with patients. The GP's sense of humanity is enriched by contact with patients.
	Mutual trust and respect in doctor patient relationships	Respect in doctor-patient relationships. There is a mutual trust between GPs and patients. The mutual respect and trust is part of a satisfying doctor-patient relationship.
	Being a doctor for the whole family	Sometimes GPs care for several members of the family over several generations. It is a satisfying and a special relationship.
E - Teaching and learning	Continuous Professional Development	GPs like to continue their medical education to acquire new skills and improve existing ones including clinical skills but also research and learning while practising skills. The GPs want to have continuing medical education to improve relations with the professional community and improve patient care.
	Being a teacher, a trainer	GPs like to be teachers of General Practice, trainers and tutors. They believe in the importance of clerkship. GPs enjoy good relationships with students and trainees. Teaching promotes a positive atmosphere and GPs acquire positive experiences.
	Positive role modelling by senior GPs	GPs are proud to be a positive role model for the junior GPs and GP trainees. They remember their own role model when they were younger.

	Make practice attractive for young GPs	GPs like to be attractive for junior GPs. They want to keep their practice attractive. They want junior GPs to work with them as their associates, or succeed them when they retire.
	Recognition of General Practice as a specialty	The GPs are proud that General Medicine is recognized as a specialty by the university, the public authorities. They want the respect of official organisations.
	Mutual benefits of GPs and trainees	Trainees learn from GPs and GPs learn from trainees. Teaching enables them to view their own work from a different perspective.
F - Supportive factors for work-life balance	Positive experiences at the beginning of career	An efficient workplace is a positive start in a career. GPs enjoy the success of the early years. With a good start, there is a greater chance they will continue.
	A harmonious private life	GPs want to have a free choice of residential environment and geographical location. They want to choose whether or not to keep their professional and private lives separate. GPs want a complete family life and the time to enjoy it.
	Job security	GPs need to feel they have a secure profession, making them free. GPs do not have unemployment problems. GPs are satisfied if they have a fair income, having no problem with money.
	A fair earnings/workload balance	GPs look for a personal balance between earnings and workload. They need to be satisfied with the amount of money they earn for the work they do. GPs want to be free to organize their work life balance. They want to have the opportunity to have holidays, sufficient income, time.
	General practice as a respected profession	General Practice is a respected profession. The social and medical communities respect GPs.

Chapter 6 : Delphi consensus research and Nominal Group

Title : Positive factors favouring recruitment in General Practice: Delphi consensus research and Nominal Group hierarchy with general practitioners decision-makers.

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Abstract:

Background: Looking for what makes General Practitioners (GPs) satisfied in their profession may be important in increasing the General Practice workforce in the future. An EGPRN research team from eight participating countries studied the positive factors for retention of satisfied GPs in their clinical practice throughout Europe. 183 GPs participated to the qualitative studies. 31 factors of job satisfaction were identified as an important determinant of GP retention and attraction to the profession.

Research question: Which positive factors are the most relevant for the decision-makers in order to improve the recruitment of GPs in France?

Method: Delphi method was chosen, with two round blinded, by Internet, inviting experts to valid, and eventually rephrase, the 31 relevant factors. A NG by mail followed the Delphi rounds to prioritize the items. The experts were GPs or not, union representatives of general practitioners or students in General Practice, health insurance representatives, from the

Ministry of health, local elected, journalists specialized in care organization care and patients associations.

Results: Twenty-nine experts initiated the procedure and 22 fully completed it. All categories of experts were represented in the final sample. The Delphi rounds kept thirty factors. The NG hierarchized: 1 °) to engage in General Medicine to take care of the patients; 2 °) coordination of care, Advocacy of the patient; (3) variety in activity; 4 °) have a patient-centred approach; 5 °) be involved in the organization of care; 6 °) to benefit from effective management of the practice; 7°) be a teacher and tutor in General Practice; 8) work with good collaborators.

Conclusion: The results showed that to recruit GPs it is necessary to develop the coordination of care, the patient-centred approach, the teaching in General Practice and to pay attention to the organization of the profession.

MeSH Terms:

Delphi, Career Choice; Family Practice; General Practitioners; Job Satisfaction;

Background

General Practice have a specific, important and complex role to ensure quality and effectiveness of care for the whole population (1). A strong primary care system is associated with improved population health (2). The WONCA Europe definition of General Practice specifies that it is a clinical specialty oriented towards primary care enabling open and unrestricted access to patients (3).

In France, primary care includes prevention, screening, diagnosis, treatment and follow-up of patients, orientation within the health care system and health education (2). Scientific studies have shown that strengthening the supply of primary care improves population health indicators and equal access to care while optimizing health care spending (2,4). The health systems of European and the OEDC countries are currently confronted with a significant shortage for the access of the people to primary care. For most countries, General Medicine is the first level of patient contact with the health system (4–6).

The choice for general practice in France is decreasing. The attractiveness for General Practice by students is the lowest among all disciplines (7) and the clinical workforce of GP in primary care decreases (8).

Job satisfaction has been identified as an important determinant of General Practice retention and attractiveness to the profession (6). The majority of GPs were satisfied with their jobs (9). Studies have shown that poor job satisfaction for GPs could impair the quality of care delivered (10). Many studies stressed the negative aspects of the specialty to explain the shortage of GPs faced by OECD countries including France (11). There is however doctors satisfied to practice in primary care (12,13).

First, a systematic review of the literature was carried out by the research group and showed that few studies have been done on the satisfaction of GPs (14). In a second step an European collaborative research group was created within EGPRN (15). This project involves eight countries namely Germany, Belgium, Bulgaria, Finland, France, Israel, Poland, and Slovenia. This group is co-directed by the universities of Brest and Antwerp. The aim was to highlight the positive factors that determine attractiveness and retention in the profession of GP. Therefore the team undertook a descriptive qualitative study on retention in general practice. Overall 183 GPs had been interviewed in eight different countries. Part of this research was a larger French study….

However, there is hardly research on how these positive aspects on retention are perceived by stakeholders. Mobilizing stakeholders is a necessary condition of success, (but it is not sufficient) (16). The aim of this project was bridging the gap between research and policymakers and to translate research findings for policymakers.

On which statements coming from French GPs will decision-makers agree and are useful for future policy on recruitment of GPs?

Method

Delphi consensus

For this study a Delphi consensus method was used followed by a nominal group (NG) method to make a final ranking in statements. The Delphi consensus method was used for the first part of this research (17). The nominal group (NG) method was used for the final ranking.

The Delphi Consensus is defined as a general agreement amongst the members of a group, which does not necessarily mean unanimity (18–22). The method is based on the involvement of participants defined as "experts". The expert is any person with a good knowledge of the subject and having a legitimacy to express a representative opinion of the group of actors to which it belongs (23).

The consensus is based on (19) the quantified analysis of the answers, supplemented by qualitative information from the justifications and comments of the participants. The iteration with controlled interaction: the individual questioning of the experts is done by successive questionnaires. Before each round, the experts receive the results obtained in the previous round. They then have the possibility to modify their answers. The anonymity of participants is required in order to avoid the phenomena of dominance, authority or affiliation.

Nominal group method (NG):

The Nominal group method (NG) provides researchers with information from relevant experts (24,25). It makes it easy to solve complex problems (25). NG is a well-known technique that has already been used by research group members. With a national group of experts, adaptations are necessary and a system of debate by mail will be used (26). This has already been used successfully in several previous studies (18,25–27).

Preliminary work:

The French research group, in the Brest Faculty of Medicine, carried out a preliminary work. It initially involved translating the 31 codes from qualitative studies from English into French, and to explain some of these codes. Each of the codes corresponded with a positive factor for attractiveness to the profession. These 31 positive factors that were reformulated into proposals to improve general medical recruitment and retention. The research group elaborated the explanatory description to improve recruitment in General Practice to be submitted to the consensus of experts. The 31 items are summarized in Annex 1.

The questionnaire was created and uploaded via a Google Forms application®. First, it was sent by e-mail to ten volunteers in order to test its feasibility and verify the understanding of the questions.

Panel of experts

The experts, GPs or not, had to have some experience of medical demography and its stakes. Their vision on job satisfaction factors in general practice and their applicability in terms of public health policy might be different from those in the literature and GPs. It was interesting to study the opinion of two populations of decision makers involved in health, MG or not, in order to confront the points of view.

They were recruited out of 8 groups of stakeholders: trainees' unions of general practice, GPs' unions, General Practice university departments, administrators of the health system, local elected representatives, Ministry of Health officials, specialized journalists and patients' organisations.

The experts were contacted individually, by email or telephone. They were recruited through direct contact and a "snowball" effect. The aim was to contact 30 experts according to literature about the Delphi method and the NG. It was necessary to have at least 15 experts for the Delphi rounds and 10 experts for the NG. During this first contact, the objective of the study and its principles of method were explained. The study protocol and a consent form were sent individually to each expert recruited in the preamble of the first phase of the study.

Study procedure

Delphi procedure:

The first round Delphi questionnaire was sent by individual email and needed to be completed by each participant individually. The questionnaire was sent on 23 March 2017. The replies were received from 23 March to 13 April 2017. The participants did not have contact with each other, and the Delphi procedure was anonymous. For each item, participants were asked to evaluate its relevance in terms of importance and applicability as a factor of satisfaction in order to promote the recruitment of GPs. The question for every code was: "Do you agree with this topic, and do you think it is effective for attraction of General Practice and retention of GPs in Clinical Practice?" They were asked to rate each proposal using a Likert scale (20) ranging from 1 ("not at all relevant") to 9 ("very relevant"). For any answer with a score strictly less than 7, there were asked to propose a reformulation to improve the acceptability of the proposal, or a comment explaining the disagreement. Non-consensual proposals with at least 70% of responses between 1 and 3 were permanently eliminated from the study. Consensual proposals with at least 70% of responses above or equal to 7 were definitively kept for the following of the study.

The questionnaire of the second Delphi round was based on input from the research group meeting. Only non-consensual items scored between 4 to 7 needed to be re-evaluated in this second Delphi round. They were formulated again, following the comments of the participants, in order to make them more acceptable. Only the explanation attached to the

item could be rephrased and not the title of the item itself. The questionnaire was sent on April 14, 2017. The results were collected from April 14, 2017 to April 29, 2017.

The same procedure was used for the second Delphi round. But for this round, no comment was asked regardless of the note.

At the end of this second Delphi round, only consensual proposals (at least 70% of responses with a score of 7 or more) were retained for the rest of the study, and added to the proposals that had already reached consensus in the first Delphi round.

Nominal group procedure:

The NG, the third and final phase of the study, was conducted by mail. The objective was to prioritize the consensual proposals from the two Delphi rounds. Each participant was asked to rank the 3 proposals, which he considered the most important, depending on the level of importance and applicability, to encourage the recruitment of GPs. Each participant was asked to apply 3 scores: 5 points for the first proposal, 3 points for the second proposal, 1 point for the third proposal. The questionnaire was sent on 3 May 2017. The results were collected on 24 May 2017.

Participants could include a commentary explaining their choice. Each participant was given the opportunity to comment on each other's choices as many times as desired. As well they can modify their personal ranking until the end of the NG. As the aim of the NG was a debate, the research group reserved the right to revive it, taking care not to influence the debate.

A hierarchical list of all proposals was established based on the total scores on each proposal. This hierarchical list was sent to all participants. Only proposals that received at least 5% of the total points distributed were analysed.

Results

The expert recruitment was conducted from 24 February to 22 March 2017. Forty-one experts were contacted. 33 responded and 32 agreed to participate (table1). At the end of the first round of survey, 29 participants responded to the questionnaire. Twenty-eight participants responded to the second Delphi round, and 22 participated to the NG.

Results of the first round Delphi

The results of the first Delphi round are summarized in table 3. Only two out of 31 proposals did not reach consensus: “Flexibility in work” and “Freedom of choice in workplace”.

For **flexibility in work**, 20 scores were higher than or equal to 7 that were 69%. The participants' comments objectivized 3 main ideas: This factor is irrelevant because relative and dependent on the care offer nearby. Some highlighted an already busy schedule, which sometimes compromises the possibilities for further training. Others insist that it is more important to train on the basis of General Practice.

Freedom of choice in workplace got 19 scores higher than or equal to 7 (65,5%). The participants' comments objectivized 4 main ideas: It is a complex issue. Freedom of choice in workplace, but with the exclusion of over-equipped areas. Some of the experts highlighted the social duty of the physician and his responsibility for the organization of care in the territory. Some are in favour of a freedom of choice in workplace with incentive aids.

After the first round a Research Group Meeting was performed to discuss the results. For the item “Flexibility in work” the original explanation was: *“The activity of GP covers all areas of medicine. Patients are varied. GPs must be given access to complementary university training: ultrasound, technical acts”.* Several participants considered this factor to be irrelevant as it is relative and dependent on the offer of care of the area. In the comments from the first Delphi round, several experts considered that complementary training was not essential and, above all, weighed the proposal according to the supply of care. The reformulation of the research group was the following: Flexibility in work: GP activity covers different fields of medicine. Patients are varied. GPs should be given access to complementary university courses according to their activity, the needs of the population and the provision of care.

For the item “Freedom of choice in workplace”, the original explanation was: *“It is important that the GP can choose his place of settling and for his family, as well as his environment, and the colleagues with whom he will collaborate. He chooses his place of work according to his affinities with the community, his origins or the opportunities”.* Reading to the comments, the freedom of choice in workplace was a complex and controversial problem. Several participants wanted control of the practice in over-equipped area. Other experts saw the incentive facility as a potential solution. All comments were not integrated to the reformulation. It was difficult to synthesise all the ideas in a few lines. Several participants commented extensively on this item, with several possible answers for each. The richness of the commentary is therefore interesting and constructive but difficult to integrate into a synthetic reformulation. The reformulation of the research group was the following: *“Freedom*

of choice in workplace": It is important that the GP is not constrained in the choice of his workplace, and for his family. The choice of the place of workplace should be encouraged according to the needs of the population, taking into account GP affinities with the population and opportunities.

Results of the second Delphi

Twenty-eight responded to the second round of Delphi (18 GPs and 10 non-GPs). The item " flexibility in work " obtained a consensus: 23 quotations greater than or equal to 7, which were 82,1%. The item "Freedom of choice in workplace" did not reach consensus: 19 scores higher than or equal to 7, which were 67,8%. In the non-GP population, the item of freedom of installation just reached consensus (70%). This shows that they are less opposed to the notion of freedom of choice in workplace, but under certain conditions, excluding, for example, areas over-equipped with GPs.

Results of the nominal group

Of the 28 participants who participated in the second round of Delphi, 22 participated in the NG.

The results are summarized in table 4.

1. Engage in General Medicine to take care of patients

Several experts put forward this factor as a sine qua none of the profession: it is obvious, but *"it feel better by saying it*". The notion of *"quality relationship"* is found with the patient. *"Being humanistic and patient centred"* must *"be facilitating the choice of future GPs competent".* One of the experts points out that it is *"the specialty of general practice that best responds to this motivation".*

2. Coordination of care, defend patients' interests

The GP adapts the course of care by personalizing it to each patient in order to *"avoid an even greater technical specialization of medicine".* The GP coordinates care around a comprehensive and patient-oriented care. It is a *"specificity of the profession, stimulating on the intellectual, organizational and operational level".*

3. Flexibility in work

The diversity of the profession appears to be a major factor in general practice recruitment. The profession implies a "vast" field of activity, experienced as *"a guarantee against the monotony of exercise".* This aspect of the profession makes her attractive to *"young people",* and shows an *"released"* profession, *"which can evolve through complementary training".* This diversity is seen as *"a wealth and a difficulty",* which requires some preparation and in this sense of adaptability. This item, consensual after reformulation in the 2nd round Delphi, appears as a priority to improve recruitment in general medicine.

4. Have a patient-centred approach

The *"global"* approach, centred on the patient, *"induces a satisfaction in the human relationships that make up the richness of the profession"* and is the key to a *"useful practice for the community".* It requires "collaboration with other specialists and other health professionals".

5. Being involved in the organization of care

The participants put forward an active attitude of the GP in the care system, not a *"simple operator"* position.

6. Take advantage of good practice management

It was *"the essential prerequisite for responsible and fulfilling exercise".* It is also a choice made by some not to be subject to a hierarchical, or institutional, framework in order to feel *"Free".* From this organization to work flows the rest: *"it allows to exercise with an adaptable time schedule over time, and to find a balance between professional and personal life".*

7. Being a teacher and training supervisor

This recruitment factor demonstrates a certain unanimity: *"a better knowledge of the profession on the part of the students" and "the transmission of knowledge and know-how"* with *"strategies and techniques to be patient centred"* is to *"develop as a priority if we want to recruit motivated young physicians".* One can imagine that it is rewarding for a trainee master to see a graduate student create a *"vocation"* for the profession after the discovery of his profession through his practice. One expert actually asks: *"How can one decide for a specialty if one is not going to discover it ?"* Students also appreciate the stage with a *"coaching that is one of the most appreciated and best rated among the graduate placements".* The internship in general practice makes it possible to discover aspects of the medical profession in general until then not approached by the hospital formation. This requires *"supervisor training".* Being in contact with students *"leads to questions, training,*

and research in primary care, which is also an important factor in improving the speciality and increased sense of competence ".

8. Working with good collaborators

The continuity of an installation logically finds reason in a fair work environment, in internal relations with the cabinet or external with the confreres specialists. Building a good professional network is important. This also involves internships as a student in the potential area of installation. The articulation between primary care and hospital is important in the organization of the patient care pathway and in the efficiency of the practice. For this, meetings and training between different professionals is interesting.

In the GP population, two themes appear with at least 5% of the points: Take care of yourself and enriching yourself with human experience.

Discussion

Main results

The aim of this study was to present these factors to health decision makers from several groups to measure their applicability in terms of health policy, not to validate them as a factor of satisfaction of a GP. This required an economic, social and political positioning, for which each expert had to understand the relevance of the topics for improve the General Practice workforce. On the whole, in view of the answers and the comments during the NG, the experts grasped the problem and were involved in participation. The questionnaire in this study was issued from the qualitative studies on satisfaction factors with GP across Europe. This is the first study achieved in France on the importance and applicability of these positive factors, in terms of public health, by seeking a consensus by an appropriate and rigorous method, the problem of medical demography on the positive side.

Participation was very active, showing an interest of the experts on this subject. Overall the participants validated most factors of satisfaction in general medicine as recruitment and retention factors. According to experts, the recruitment and retention would be more efficient if GP is a personalized medicine focused on the patient, that he has the tools and means to treat patients but also to take care of himself. On flexibility of work and freedom of choice on the place to settle there was no consensus although these were the most important issues to recruit potential GPs in the qualitative research overall in Europe.

Study strengths and limitations.

This study permits to submit the items of the research group for validation by Delphi method with the Health decision-makers. The NG prioritized the consensual items. The search for a consensus on the relevance of these proposals in terms of importance and feasibility was a suitable method to arrive at a synthesis of the information by integrating the data available from the studies previously carried out as well as the judgment and the experience of the experts. In the development of the questionnaires, the items were formulated in such a way as to limit the biases of acquiescence and opposition (28).

The Delphi round method allowed to analyse these propositions, while having a validation of the items. (29). The choice of a minimum proportion of agreement to 70% to define the consensus was consistent with the data found in the literature (13,19,21,22). The final ranking by the NG was adapted to obtain a prioritized list of proposals to improve the recruitment of GPs.

The experts recruited were actors in the organization of the health care system and especially in primary care. The issue of recruitment in general medicine and the problem of medical demography motivated the experts. There was a geographic and socio-professional variation within the expert panel, although about 2/3 of the experts lived in the West of France. The "snowball" effect was used. Participation in the group was active, with answers on the mailing list, in an open group and with many comments explaining the choices of each. Everyone could receive and read the choices and reflections of others. The almost daily prelaunch of the participants allowed an active debate.

The response rate was very good with 32 volunteers per 40 people contacted. The target set in the protocol was 15 participants minimum. There was hardly natural loss of participants with 29 and 28 experts who participated respectively in the first and second Delphi round. The group size corresponded with the literature on the Delphi method (19,28). With 22 participating experts (16 GPs and 6 non GPs) in the NG there was still a good response rate, keeping in mind that participating experts were busy people with responsibilities. The lost of follow-up (6 experts) could be explained by the fact that the NG was carried out on an open mailing list, which could cause a loss of confidentiality for someone. The NG was conducted by mailing because it was impossible to organise face-to-face meetings with experts from several regions with a busy schedule. This might be a limitation because there was less interaction between the different experts. On the other hand quasi-anonymity might also guarantee more objective answers.The size of the participant panel remains optimal and effective according to the literature on the NG method. Too many participants would have made the debate confusing.

Results interpretation

The non-consensus on the item “Flexibility in work” came from GPs experts and showed that they feared the pitfall of over-specialization. ”Flexibility in work” was seen as a multiplication of activity and seems to have coercion for the GPs. But it was not the idea resulting from qualitative studies. Improving skills is something that is viewed as interesting and rewarding in practice. The lack of time and a busy schedule were stressed. Indeed, for a GP, the complementary training is not always easy to organize, especially since it necessitates to close the cabinet, or to be replaced. The research group formulated the commentary in this way.

“Freedom of choice in workplace” is a complex and controversial issue. Some participants wanted control of the installation in over-equipped area. Other experts saw the incentive facility as a potential solution. It was not possible for the research group to formulate a different commentary, because the idea of freedom did not have a consensus. Despite a new explanation, the idea of freedom of choice of workplace did not found a consensus during the second Delphi round.

According to the protocol, only the explanations associated with the factor were modifiable, not the title of the item. This study cannot solve the debate of freedom for GPs’ installation. It seems necessary for all to take decisions, and that the situation cannot remain as it is. The range of solutions referred to is wide ranging from the freedom to set up incentives, the exclusion of over-endowed areas, sometimes with more radical views on the issue: « *And caring less of the problems of the population? And where is the social responsibility of doctors?* ». Opinions are varied on the issue, and let imagine a complex resolution but important for the next years to come.

Nominal Group

“Engage in General Medicine to take care of patients” got the highest score in the nominal group. All the comments put forward the idea of the patient's interest as the main goal of care, in a holistic approach that takes into account the patient as a whole. The GP integrates many factors (psychological, social, cultural) whose approach is particularly important in general medicine. The importance of the “vocational choice” was highlighted by literature (13).

“Coordination of care, defend patients' interests” got the second score. The GP acts as a referent, articulates and ensures the smooth running of the care path. One of the main

competencies of the GP is the primary care management with the ability to manage primary and continuing contact (3).

It is remarkable that the item *"Flexibility in work"* appears in 3st position even though consensus has been difficult to obtain in this population by the first Delphi round. This topic one of the most frequently described themes for GPs (9,13,14,30). It is useful for the health care system to have GPs for primary care, and it is one of the most attractive items to General Practice.

"Have a patient-centred approach" is a challenging and everyday relational challenge in general practice. This ability is a competency of General Practice (3).

Numerous studies have demonstrated that *"Being a teacher and training supervisor"* is on great value to attract young doctors to general practice (31–33). A Canadian qualitative study using the Delphi method (21) found that teaching, sharing knowledge and experience, and mentoring are rewards of family practice.

Implications for policymakers and research

This study showed that the factors of satisfaction found in General Practice can be factors of recruitment and retention. There was consensus among the participants from different settings that promoting these positive factors would improve the primary care workforce. The study also shows that general practitioners are concerned about the health of their patients. They need freedom and good technical conditions to treat them. Policy makers are concerned about the deficit in medical deserts. This medical deficit problem should be resolved taking into account the other factors of satisfaction.

Using the results of this study by the health authorities could be an effective way to improve the General Practice workforce in France.

However this study again raised the problem of freedom of choice in workplace for the GPs in France, which is a sensitive and complex subject that involves the general practitioner as a person and his / her relations with the community (30,34). The method was not appropriate to treat this complex problem. Other research could study this fundamental problem in the careers of general practitioners.

The protocol for this study will be used by other countries in Europe to develop a list of proposals considered important and applicable from the point of view of health decision-makers in the countries concerned to promote the recruitment of GPs.

Conclusion

For the NG the proposals are centred on the patient, on the teaching and the flexibility in work.

The items "taking care of oneself" and "enjoying good management of the medical practice", which overlap between it, are emphasized in the GPs but do not appear in non-GPs. This demonstrates that GPs are a little more patient-centred but put less emphasis on the recognition of the profession itself. Despite these few notable differences, the 2 populations studied have a convergent opinion, which shows that it is the decision-making side that counts. The overall results showed that to recruit in general practice it is necessary to develop coordination of care, the patient-centred approach, the flexibility in work, the teaching, improving training in General Practice and to pay attention to the factors organization.

Ethics statement:

The Ethical Committee of the "Université de Bretagne Occidentale" (UBO), France approved the research.

Consent to participate

For this study, the informed consent is “Not applicable.”

Author’s contributions:

B Le Floch designed the study, collected data, drafted and revised the paper. P Le Floch collected data, drafted and revised the paper. M Cam collected data, drafted and revised the paper. H Bastiaens designed the study and revised the paper. JY Le Reste designed the study, drafted and revised the paper, H Lingner revised the paper, S Csachowsky revised the paper, A Sowinska revised the paper. R Hoffman revised the paper. P Nabbe revised the paper, R Assenova revised the paper, T Koskela revised the paper, Z Klemenc-Ketiš revised the paper, T Montier revised the paper, L Peremans designed the study and revised the paper.

List of abbreviations:

ARS: Agence Régionale de Santé; Regional Health Organisation Agency in France

CPAM: Caisse Primaire d’Assurance Maladie; Local Health Insurance

CNGE: Conseil National des Généralistes Enseignants; French part of the WONCA

CNOM: Conseil National de l'Ordre des Médecins; National General Medical Council

EGPRN: European General Practice Research Network,

GP: General Practitioner,

GPs: General Practitioners,

MSA: Agricultural Health Insurance,

OECD: Organization for Economic Cooperation and Development,

NG: Nominal Group,

UBO: Université de Bretagne Occidentale, France,

WHO: World Health Organization,

WONCA: World Organization of National Colleges, Academies and Academic Associations of General Practitioners/Family Physicians.

Acknowledgements:

We would like to sincerely thank the European General Practice Research Network for its support in the survey.

We would like to sincerely thank the participants for their enthusiasm.

The authors are grateful for the comments and suggestions provided by Alex Gilman and the work of M Drogou, P Akue, P Monier, C Lecrocq and A Charles-Jouhannet.

Funding:

This project had an EGPRN funding of 8000 €.

Competing interests:

All authors hereby declare that they have co competing interests for this research

Availability of Data and Materials:

All data and materials would be sent on request. Contact Département Universitaire de Médecine Générale, Faculté des Sciences de la Santé, 22, avenue Camille Desmoulins, 29200 Brest Cedex, FRANCE.

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Chapter 7: General Discussion

Research questions

This thesis was a research on GPs' job satisfaction.

The aim of this thesis was to study in depth the factors of job satisfaction of general practitioners.

- Which positive factors attract to the profession of general practitioner?

- Which positive factors encourage the general practitioner to remain in his / her profession?

- Can we draw a portrait of the European general practitioner satisfied with his profession?

- Which characteristics are associated with a high level of satisfaction and persistence in the profession?

- Which are the topics, issued from the EGPRN Womanpower group, operational for stakeholders to enhance the GP workforce?

What was already known?

The literature review

Looking at what literature studied about General Practitioners (GPs) happy in their profession, was important for the study. The literature review explored how the satisfaction of GPs had been studied before. We performed a systematic literature review with the focus on the GP job satisfaction. The research equation was centred on "General Practice", "Job Satisfaction" and "Career Choice" which were MESH term (Medical Subject Headings). "General Practice" is defined by "patient-based medical care provided across age and gender or specialty boundaries". It was introduced in 2011. "Job satisfaction" is defined by "a personal satisfaction relative to the work situation". It was introduced in 1979. "Career Choice" defined the

selection of a type of occupation or profession. It was introduced in 1983 and revised in 1975.

The main result of this literature review was a description of a broad range of factors that GPs consider satisfying in relation to their job (1). One of the results of this literature review is a broad overview of the positive factors, which keep GPs in their clinical practice. This comprehensive view on satisfaction factors cannot be found by reading the individual articles. Most research on GP satisfaction was undertaken in a particular context, with small numbers, and with a focused research question on specific aspects. Merging all those factors provides a broader perspective on the topic. The major part of the literature focused heavily on the material working condition of GPs. Most research examining GPs' satisfaction were conducted with survey methods.

The literature review draws up a description of the General Practitioner who is satisfied in work. Satisfied GPs are professionals who can keep a reasonable workload balance, which provides sufficient income and who are free to organise their work and determine how they work. Satisfied GPs are sufficiently challenged in their work and feel competent and useful. They have opportunities to broaden their tasks such as being involved in teaching or academic work. They wish to preserve their own heathland value, good relationships with their patients and other professionals and live in a community, which appeals to them and to their family.

But our literature review showed numerous factors related to job satisfaction among GPs. However, any research showed a global view of GPs' satisfaction in their job. After this review, it seemed important for the research team to conduce qualitative surveys in the identification of these factors. Therefore, in the next step, the research team was committed to look at these factors using a qualitative approach to have a rigorous qualitative survey on GPs' job satisfaction.

What this thesis adds: A collaborative study

This research was the first European multicentre study on this topic. The secondary aim was the forming of a European research team according to the EGPRN meetings(2). We had to create a research protocol acceptable by all the members of the team, according to different possibilities of research in those countries. We had

to manage the different countries with their different language, culture and different health system.

This part of the thesis was the most complex, but also the most interesting. It was a strong effort to collect such a great data and to organize the codebook during the workshops (3).

This study collected a complete data from eight countries with different language and different health systems. It was challenging to undertake this work with the necessary translations and comprehension of the protocol in each country with low funding. This study was an example of the spirit of the EGPRN, building up research capacity throughout

What this thesis adds: The European qualitative studies

As there was no example in the existing literature, and existing models of job satisfaction were more oriented towards employees working in a company, the European research team developed several qualitative studies.

The first qualitative studies were achieved in France. Four studies were conduced; one by focus groups, the three other studies used individual interviews (71 participants in France). The other countries conduced each one qualitative study, by focus groups or individual interviews (183 participants at all.)

The international codebook

An international codebook was built:

A - GP as a person

- Love job
- Taking care of yourself as a person
- Mission to be a GP
- Ability to cope

B - Special skills/competencies needed in practice

- High intellectual profession

- Coordinator of care
- Good communication skills
- Broad scope of activities

C - Freedom in work organisation

- Good professional collaboration
- Freedom of choice in working place
- Involvement in practice organisation
- Well-managed practice
- Flexibility in work

D - Doctor-patient-relationships

- Patients' gratitude
- Longitudinal care
- Trying to be a person centred doctor
- Successful negotiation with patients
- Rich human relationships with patients
- Mutual trust and respect in doctor patient relationships
- Being a doctor for the whole family

E - Teaching and learning

- Continuous professional development
- Being a teacher, a trainer
- Positive role modelling of senior GPs
- Make practice attractive for young GPs
- Recognition of general practice as a specialty
- Mutual benefits of GPs and trainees

F - Supportive factors for work-life balance

- Positive experiences at the beginning of career
- Harmonious private life
- Job security
- A fair earnings/workload balance

- General practice as a respected profession

Those 6 themes and the 31 codes drawled the first whole description of GPs' job satisfaction.

A European GP

Everywhere throughout Europe, GPs experience the same positive factors, which cause them to stay in clinical practice. The central idea is the GP as a person, who needs a continuous support and professional development of special competencies. GPs want to have freedom to choose their working environment and organize their own practice work. Every GP has personal needs for self-fulfilment and a satisfying work-life balance.

Comparison with WONCA core competencies

One of the remarkable results of this thesis was a portrait of a European satisfied GP. We found some codes corresponding to the European definition of General Practice by the WONCA (4,5). The diversity in practice is one of the first characteristic of General Practice, according to the WONCA definition.

This definition clustered six core competencies (with reference to the codes about satisfaction):

1. Primary care management: "*Coordinator of care*"; "*Broad scope of activities*"; "*Good professional collaboration*";

2. Person-centred care: "*Trying to be a person centred doctor*"; « Person centered care » which links to one core competency of the WONCA should also be taken into account as a key competency for being a happy and successful General Practitioner. Great attention should be paid to that competency in initial and on-going medical education.

3. Specific problem solving skills: "*Continuous Professional Development*"; "*A highly intellectual profession*";

4. Comprehensive approach: "*Being a doctor for the whole family*"; "*Successful negotiations with patients";*

5. Community orientation: "*Involvement in the health care organisation*";

6. Holistic modelling: "*Trying to be a person centred doctor*";

To practice the specialty, the competent practitioner implements these competencies in three areas:

- Clinical tasks; "*A highly intellectual profession*"; "*Coordinator of care*";

- Communication with patients: "*Good communication skills*";

- And management of the practice: "*Well-managed practice*".

We found some congruences between the WONCA competencies and the satisfaction in job of the GPs. This is on importance because there is a relation between GPs' satisfaction and the quality of care (4).

A satisfied GP is a competent GP.

The Evidence-Based Medicine concept

The concept of evidence-based medicine is defined by the synthesis of the three components of decision making: scientific evidence, clinical state and patients' context, which determines GP's clinical competence (5). The decision results from the synthesis of current scientific data, the patient's project and the context of care, which the doctor's competence adapt in making decisions about the care of individual patients.

This concept is developed in the theme "*doctor-patient relationships*", with the codes "*Trying to be a person centred doctor":* GPs understand the perspective of the patient. He provides care from a holistic approach. "*Successful negotiations with patients*". The GP likes to negotiate with patients to make them accept support, treatment and lifestyle changes.

In the theme "*teaching*", with the code "*Continuous Professional Development*" GPs like to do continuing medical education to acquire or complete new skills.

GPs are proud to practice and "*highly intellectual profession*", and need to be at the good level of skills and competences to be satisfyed in his job.

Comparison with the Warr-Cook-Wall scale

The major part of the literature focused heavily on the material working condition of GPs. These studies were almost based on surveys which used declarative questionnaires (6–9), such as the Warr-Cook-Wall job satisfaction scale (10).

The Warr-Cook-Wall job satisfaction scale was developed in 1979 with a British population and has been used among different groups of workers. This scale was a short, reliable, valid, and easy tool to measure job satisfaction. It used 15 items, with a Likert scale, from "extremely dissatisfied" (score 1) to "extremely satisfied" (score 7).

The items used were: (with reference to the codes about satisfaction in our theisis):

- Your job security: *"Job security"*

- Physical working conditions: The theme "*Freedom in work organisation*" with "*Well-managed practice*"

- Freedom to choose your own method of working: The theme "*Freedom in work organisation*" with "*Involvement in the health care organisation*"

- Your colleagues and fellow workers: "*Good professional collaboration*"

- Recognition you get for your good work: We found "*Patients' gratitude*", and "*General practice as a respected profession*"

- Amount of responsibility you are given: This item could be found in "*A highly intellectual profession"* and *"Coordinator of care"*

"your rate of pay," in the code "Job security", we have "*GPs are satisfied having good income, having no problem with money*".

- Opportunity to use your ability: "*A highly intellectual profession*"

- Your hours of work: "*A fair earnings/workload balance*"

- Amount of variety in your job: "*Broad scope of activities*" and "*Ability to cope*"

- Taking everything into consideration, how do you feel about your job as a whole? "*Love job*"

There is a lot congruences between our codebook and the Warr-Cook-Wall scale. But in the WCW scale, we do not found the satisfaction about the doctor-patient relationships, which is one of the major topic in our theisis.

Comparison with Frederick Herzberg's theory

Frederick Herzberg's motivating-hygiene theory suggests that job satisfaction and dissatisfaction are not two opposite ends of the same continuum, but instead are two separate and, at times even unrelated, concepts (11,12). "Motivating" factors like pay and benefits, recognition and achievement need to be met in order for an employee to be satisfied with work. On the other hand, "hygiene" factors (such as working conditions, company policies and structure, job security, interaction with colleagues and the quality of management) are associated with job dissatisfaction.

The results issued from the literature review and from the qualitative studies suggest that the "hygiene factors" of Herzberg could be consider as positive factors by the GPs. We found in the theme "*Freedom in work organisation*" some different codes: good professional collaboration, freedom of choice in workplace, involvement in the health care organisation, well-managed practice and flexibility in work. Those codes are considered by Herzberg as "hygiene factors" and associated with job dissatisfaction. In our thesis, they are positive factors. This is a specificity of the job of GP. Here, the job is not an "industrial work", and in GPs' job satisfaction, the goal is not production, but the health of people. This aspect was developed in others codes about patient doctor relationships, and in the central theme "*GP as a person*".

We found "motivating" factors like income, recognition ("*general practice as a respected profession";* "*patients' gratitude*") and achievement need ("*recognition of general practice as a specialty*"; "*high intellectual profession*"). Some themes are not developed in the Herzberg theory ("*GP as a person*"; "*teaching and learning*" and the theme "*doctor-patient relationships*").

The differences with the Herzberg theory highlight that the policy makers must treat the GPs' job satisfaction with this specificities.

Comparison with Maslow's theory

Maslow expanded the needs hierarchy theory and applied it to job satisfaction (13). Developed in the 1940s, this theory hierarchized five needs, which when satisfied are no longer motivating factors: physiological needs and security needs, the need for social relationships, the need for esteem, the need for self-realization or self-actualization: the desire to progress, to flourish and to satisfy creative aspirations and the need for a sense of innovation. Although this model provides us with a theoretical lens to look at job satisfaction, we do not know whether or how it applies to general practice. Nevertheless, it provides a good starting point to look at job satisfaction in general practice specifically.

The themes developed by Maslow can be found in our thesis. We found the need for social relationships ("*Rich human relationships with patients*"), the need for esteem ("*Patients' gratitude*"), the need for self-realization ("*Make practice attractive for young GPs*"; "*Recognition of General Practice as a speciality*"); the desire to progress ("*Continuous Professional Development*"; "*A highly intellectual profession*"). The need to flourish could be found in the theme "*GP patient relationships*", but with his specificities.

Our study shows that there is a particular theory to explain the satisfaction of general practitioners, more focused on human relations, the patient and the social community.

What this thesis adds: the consensus research in France

This study showed that the factors of satisfaction found in general practitioners can be used as recruitment factors (14). There was consensus among the participants from different settings that promoting these positive factors would improve the primary care workforce. The study also shows that general practitioners are concerned about the health of their patients. They need freedom and good technical conditions to treat them.

The overall results showed that to recruit in general practice it is necessary to develop coordination of care, the patient-centred approach, the flexibility in work, the

teaching, improving training in general medicine and to pay attention to the factors organization.

Comparison with previous researches

In 2006, Van Ham et al published a systematic literature review about job satisfaction among GPs that described both decreasing and increasing trends in decisive factors (15). The review found 24 relevant citations. The main factors increasing job satisfaction were: work diversity, relationships and contact with colleagues and being involved in teaching medical students. The literature review of our thesis confirmed those items and added positive elements that could be targeted and used to support GPs and keep them in the job (1). The following studies added the specific factors influencing GPs' job satisfaction, in order to recruit and enhance workforce.

The central theme found in this thesis is "GP as a person", which focused on specificities of the GP as a human being. The consensus study highlighted the theme "Engage in General Medicine to take care of patients". In the literature this item was already found. The GP's own personality and personal values played an important role. Values can differ between GPs. If their job were fully compatible with their temperament and personal values, then GPs were more satisfied. Some chose to be a "traditional family doctor" (16). The mission for most GPs was to help people. "*The goal of practice is to meet people's needs, take care of them and do the best you can*." (17). A GP is someone with a specific personality, which is suited to General Practice. GPs like to take care of people (17) *Feeling of caring »* (18). "*I can have a big impact on people's lives*" (17). The unique doctor-patient relationship, while feeling useful and being integrated into the community, makes satisfied GPs. Policy makers must keep in mind, when reorganizing the professions in primary care, that the most attractive factor in the profession seems to be the unique doctor-patient relationship, along with the longitudinal care and diversity in the work, which are extremely attractive factors in the profession (18)(19)(20).

The research highlighted the positive aspect of the special skills and competencies needed in practice. GPs' satisfaction focused on an effective medical management of the patient and the subsequent feeling of being competent (21). The importance

of challenges was already described, such as intellectual stimulation (18), and being able to practise a wide number of procedures (19).

Freedom in work organisation was well studied. GPs want to have freedom to choose their working environment and organize their own practice work in collaboration with other health workers and patients (7,19,22).

Workload and income balance were explored in the literature. Previous researches studied the satisfaction related to working hours. Overwork cause the continual pressures and workload of being a rural GP and the inability to effectively unload this stress (23). The ability to cope with workload as well as organizational work contributes to GPs' satisfaction (24).

Implications for medical education and practice

Learning the core competencies of General Practice in initial and continuous medical education is very important and should lead to extended educational programs in Europe. Mobilizing stakeholders is a necessary condition of success, but it is not sufficient (25). To improve the attractiveness of general practice, universities should organise a specific selection process for GPs, not just for specialists. This might engender greater respect for the profession.

Roos et al performed a study by questionnaire on the "motivation for career choice and job satisfaction of GP trainees and newly qualified GPs across Europe" (26). The most frequently cited reasons for choosing General Practice were "compatibility with family life," "challenging, medically broad discipline', "individual approach to people", "holistic approach" and "autonomy and independence".

There was consensus among the participants from different settings that promoting these positive factors would improve the primary care workforce. The study also shows that general practitioners are concerned about the health of their patients. They need freedom and good technical conditions to treat them. Policy makers are concerned about the deficit in medical deserts. This medical deficit problem should be resolved taking into account the other factors of satisfaction.

Implication for future researches

Further studies would be useful with the objective of studying which satisfaction factors have the greatest impact on recruitment and retention in General Practice. Further studies could be conducted to investigate the links between these positive factors and the growth of the GP workforce. It would be on interest to test the usefulness of positive factors in helping each country to design efficient policies to increase their workforce.

Strong points and weakness of the research

This thesis is the first European multicentre study on the topic of GPs' job satisfaction. This study got rich in depth data from eight countries. The main contribution of this study is a description of a broad range of factors that GPs consider satisfying in relation to their job in Europe. This comprehensive view on satisfaction factors cannot be found by reading the previous researches. Most research on GP satisfaction was undertaken in a particular context, with a focused research question on specific aspects. This richness of data has been obtained using the different countries and the great number of interviews.

Confounding factors or interpretation bias could come from differences between social health systems and linguistic understanding. This bias was limited by working with an international research team. The interpretation of the verbatim analysis was a linguistic and cultural problem in eight countries with different languages, but this bias was limited with the group meetings and the important amount of mails and phone discussion during the research process.

Conclusion

The central idea is the GP as a person who needs continuous support and professional development of special competencies. Policy makers are concerned about the deficit in medical deserts. This medical deficit problem could be resolved

taking into account the other factors of satisfaction. Factors of satisfaction from general practitioners could be used as recruitment factors improving General Practice workforce.

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Chapter 8 : Résumé de la thèse en Français

Quels facteurs positifs déterminent l'attrait vers la Médecine Générale et le maintien dans la pratique clinique?

Which positive factors determine attractiveness to General Practice and retention in Clinical Practice?

Welke positieve factoren bepalen de aantrekkelijkheid van de algemene praktijk en behoud in de klinische praktijk?

TABLE DES MATIERES

LEXIQUE ET LISTE DES ABREVIATIONS

CHU : Centre Hospitalier Universitaire

CNGE : Collège National des Généralistes Enseignants

CNOM : Conseil National de l'Ordre des Médecins

DUMG : Département Universitaire de Médecine Générale

DREES : Direction de la Recherche, des Études et de l'Évaluation des Statistiques

ECN : Examen National Classant

EGPRN : European General Practice Research Network

FMC : Formation Médicale Continue

INSEE : Institut National de la Statistique et des Études Économiques

MSA: Mutuelle Sociale Agricole

MSU : Maître de stage Universitaire

WONCA : World Organization of National Colleges, Academies and Academic Associations of General Practitioners/Family Physicians

INTRODUCTION

1 - Un système de santé en mutation.

Le système de santé français, et plus généralement les systèmes de santé européens, sont confrontés à une importante évolution de l'offre et de la demande en soins primaires. L'augmentation et le vieillissement de la population, ainsi que les transitions épidémiologiques liées à la part croissante des maladies chroniques contribuent à augmenter la demande de soins, tandis que les inégalités dans la répartition territoriale de l'offre de soins tendent à s'accroître (1).

De nombreux pays européens ont développé un système de santé reposant sur les soins primaires. Les soins primaires favorisent l'équité et augmentent la performance du système de santé (2).

Des études ont montré que des soins de santé primaires forts étaient associés à une meilleure santé de la population, à des taux inférieurs d'hospitalisations inutiles et à une moindre inégalité socio-économique en matière de santé perçue (3–5).

L'enjeu pour le système de santé français était de se centrer sur les soins primaires, définissant les niveaux de recours en fonction des besoins réels de la population. En ce sens, la loi Hôpital Patient Santé Territoire (HPST) de 2009 a intégré les soins de premier recours dans le schéma régional de l'offre de soins et a précisé les missions des médecins généralistes de premier recours (6,7). La loi de modernisation de notre système de santé, adoptée le 26 janvier 2016 développe encore ce concept et donne une définition dans son article 64 des équipes de soins primaires, constituées d'un ensemble de professionnels de santé de premier recours autours des médecins généralistes. Ces mesures visant à structurer les parcours de santé notamment pour les patients atteints de maladies chroniques, les personnes en situation de précarité sociale et les personnes en situation de handicap et de perte d'autonomie placent le médecin traitant au cœur du dispositif.

2- Une démographie médicale en baisse

Sur la période 2007/2017, si le nombre de médecins en activité régulière restait globalement stable, le nombre de médecins retraités était en forte augmentation (+93,6%) ce qui avait un impact significatif sur la spécialité de médecine générale. Les effectifs de médecins généralistes sont fortement impactés par le nombre de départs en retraite (8).

Au 1er janvier 2017, 88137 médecins généralistes en activité régulière étaient inscrits au Conseil National de l'Ordre des Médecins (CNOM), soit une diminution de 9,1% des effectifs depuis 2007 (8).

Les effectifs de médecins généralistes libéraux ou à activité mixte devraient diminuer de 9,5% entre 2015 et 2025 et ce, malgré le recrutement de médecins à diplômes étrangers.

Sur cette même période, les effectifs de médecins généralistes salariés exclusifs devraient croître (9).

Aux ECN de 2017, sur 3132 postes proposés en médecine générale, 98,9% ont été pourvus (84% en 2011). Mais si la part des postes pourvus en médecine générale augmente, l'analyse du choix par spécialité révèle qu'elle reste peu prisée des étudiants. Un indicateur d'attractivité compris entre 0 et 1 a été calculé pour chaque discipline. Plus une spécialité a un indicateur proche de 0, plus elle est attractive car choisie par des étudiants mieux classés.

Aux ECN de 2016, la médecine générale avait un indicateur d'attractivité à 0,83, le plus faible parmi toutes les disciplines après la médecine du travail (indicateur d'attractivité à 0,84) (10).

3- La satisfaction professionnelle

Introduit dans les années 1930 aux Etats-Unis, le concept de satisfaction au travail a été largement étudié. La satisfaction professionnelle a été identifiée comme un déterminant du maintien dans la profession et du renouvellement des médecins (11,12).

Des études ont montré que le coût du turn-over des médecins généralistes est important (13).

Des études ont montré une corrélation positive entre satisfaction au travail et satisfaction envers la vie, ainsi qu'entre satisfaction au travail et santé globale (12).

A l'inverse, il existe une corrélation entre insatisfaction au travail et incapacité à prendre soin des patients (14).

4- Le projet de recherche de l'European General Practice Research Network

Devant ces constats, l'European General Practice Research Network (EGPRN), le groupe recherche de la WONCA Europe a lancé un programme de recherche multicentrique afin de promouvoir la Médecine Générale dans plusieurs pays européens, dont la France, confrontés à des problèmes de démographie médicale et ainsi de favoriser l'accès aux soins primaires (15).

Ce programme de recherche est né du constat que beaucoup d'études cherchant à comprendre le manque d'attractivité de la médecine générale libérale se basaient sur des modelés négatifs. L'une des hypothèses formulée était que mettre en évidence les facteurs de satisfaction des médecins généralistes serait plus judicieux pour améliorer l'attractivité et le maintien dans la profession de médecin généraliste.

Ce projet regroupait huit pays (Allemagne, Belgique, Bulgarie, Finlande, France, Israël, Pologne, et Slovénie). Il était codirigé par les facultés de Brest et d'Anvers.

Le projet de recherche de l'EGPRN était de mettre en évidence par méthode qualitative les facteurs de satisfaction du médecin généraliste, dans les pays participants. L'hypothèse de recherche de ce projet est qu'il doit exister des médecins généralistes heureux et motivés par leur métier.

5- Objectifs de l'étude

L'objectif de cette étude était de déterminer un modèle positif de la médecine générale puis d'en tirer des propositions concrètes à soumettre aux décideurs politiques afin de promouvoir la médecine de famille.

Les questions de recherche de cette thèse étaient:

- Quels facteurs positifs donnent satisfaction aux médecins généralistes dans leur profession?

- Quels facteurs positifs ont attiré les médecins généralistes dans leur carrière dans la pratique?

- Pouvons-nous dresser un portrait du médecin généraliste européen satisfait de sa profession?

- Quelles sont les caractéristiques du médecin généraliste associées à un haut niveau de satisfaction et de maintien dans la profession?

- Quels facteurs positifs déterminent l'attrait de la pratique générale le maintien dans la pratique clinique?

- Quels sont les sujets, issus du groupe Womanpower de l'EGPRN, opérationnels pour les décideurs en politique de santé afin d'améliorer la main-d'œuvre GP?

METHODE

1- Revue systématique de la littérature

La première étape de cette étude a été la réalisation d'une revue systématique de la littérature pour répertorier les différents facteurs de satisfaction des médecins généralistes mis en évidence dans les études précédentes (16). Le groupe de recherche a réalisé une revue systématique de la littérature selon les critères PRISMA (17,18). Les études pertinentes ont été identifiées par des recherches systématiques dans les bases de données Pubmed, Embase et Cochrane. Les mots clé utilisés étaient « General Practice », « Job satisfaction », « career choice », « Career mobility ». La recherche a été restreinte aux articles publiés entre le 1er janvier 2000 et le 31 décembre 2014. L'année 2000 a été définie comme l'année de début de la recherche comme un tournant pour la vision de GP avec un travail international initié sur sa définition par la WONCA (19). Tous les articles ont été identifiés, sélectionnés et inclus par deux équipes de recherche distinctes, selon des critères d'inclusion ou d'exclusion. Une évaluation qualitative a été entreprise par un processus d'analyse thématique pour saisir toute question pertinente à la question de recherche (20).

2- Etudes qualitatives

Pour la seconde étape, des études qualitatives par entretiens semi-dirigés ou par focus groups ont ensuite été menées auprès de médecins généralistes dans les huit pays participants. L'objectif de ces études qualitatives était de recueillir les facteurs de satisfaction des médecins (21–23). Des médecins généralistes ont été interviewés dans les huit pays. Les questions ouvertes du guide d'entretien ont été finalisées après les premières études françaises. Le guide d'entretien est décrit dans la table 1. Les études qualitatives ont été menées de 2011 à 2016. Les éléments recueillis ont été enregistrés, retranscrits et regroupés en verbatims. Lors des premières études, réalisées en France, l'équipe de recherche a étudié la perception de la satisfaction au travail en médecine générale auprès des étudiants en médecine et des médecins généralistes en France. Les études qualitatives ont été menées dans différents contextes avec une perspective phénoménologique. Une analyse qualitative thématique a été réalisée selon la méthode décrite par Braun et Clarke (24). Les étudiants et les médecins généralistes ont été sélectionnés, en utilisant une stratégie d'échantillonnage raisonnée, jusqu'à ce que les données soient saturées pour chaque étude. Enfin, une analyse du «codebook» de ces études a été réalisée pour synthétiser l'ensemble des données dans un livre de codes commun comprenant les facteurs de satisfaction des généralistes dans leur métier (22,24,25).

Tableau 1 : Guide d'entretien utilisé pour les études qualitatives

Question 1	Dans la vie d'un médecin généraliste, il y a des expériences plaisantes, des anecdotes dont on se souvient avec plaisir ; pourriez-vous nous en raconter une ?
Question 2	Qu'est-ce qui vous fait plaisir dans votre métier ? Ce qui vous rend heureux d'aller travailler chaque matin ?
Question 3	Quelle est la formule magique de l'installation réussie ?
Question 4	Qu'est-ce qui plait aux proches d'un médecin généraliste ?
Question 5	Quel environnement, quel cadre de vie rendent un médecin généraliste heureux ?
Question 6	Il y a-t-il des choses que nous n'avons pas évoquées et qui vous rendent heureux ?

Les codes ont été organisés en 6 thèmes : le médecin généraliste en tant que personne, les compétences particulières au métier de médecin généraliste, l'organisation positive du métier de médecin généraliste, la relation médecin patient, l'enseignement de la médecine générale, et les facteurs qui soutiennent le médecin généraliste.

3- Etude de consensus

La troisième étape consistait en une recherche de consensus par la méthode Delphi puis hiérarchisation par groupe nominal (26–29). Le but de cette étude était de valider et hiérarchiser parmi ces facteurs, les plus pertinentes en terme d'importance et d'applicabilité, pour les décideurs en politique de santé, afin d'améliorer le recrutement des médecins généralistes. L'étude a été menée en France, de février à Avril 2017, par méthode Delphi modifiée, avec deux rondes par internet en aveugle, invitant les experts à sélectionner les facteurs de satisfaction qui leur semblaient les plus pertinents. Les rondes Delphi ont été suivies d'un groupe nominal par mail pour les hiérarchiser (30). Les experts étaient médecins généralistes ou non, représentants syndicaux de médecins généralistes ou d'internes en médecine générale, universitaires de médecine générale, représentants des agences régionales de santé ou des caisses d'assurance maladie et Ministère de la santé, élus locaux, journalistes spécialisés en organisation des soins ou membres d'associations de patients.

RESULTATS

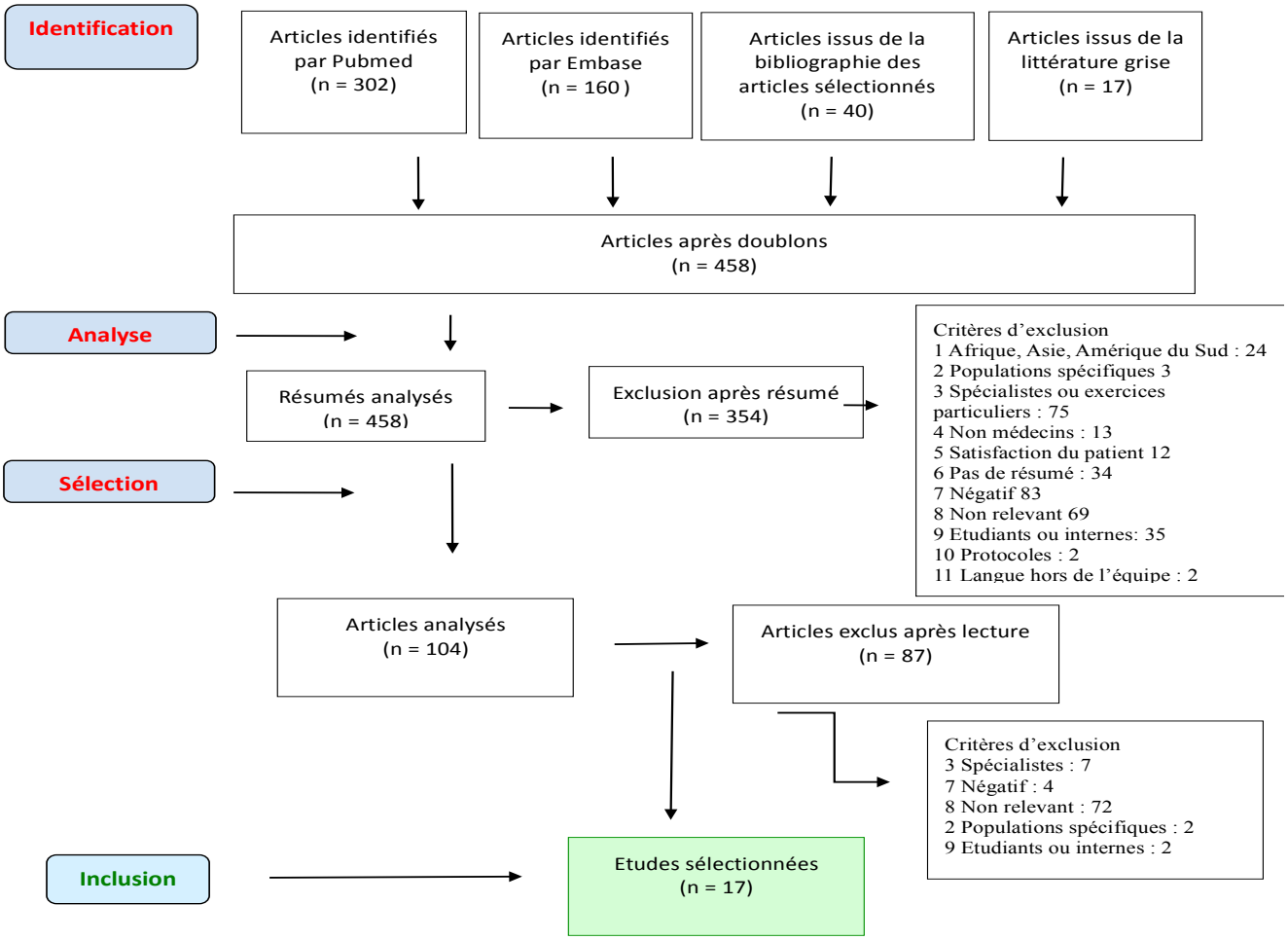
1- Revue de littérature :

Résultats : Le nombre d'articles retenus était de 458. Après sélection, le nombre d'articles analysés était de 17. Les facteurs de satisfaction des médecins généralistes selon la littérature pouvaient être classés en plusieurs thèmes. Les facteurs de satisfaction personnelle étaient en rapport avec la famille, la qualité de la vie au lieu d'habitation, l'emploi du conjoint, les services proposés aux enfants. Une bonne intégration à la communauté sociale était importante. La satisfaction liée à chaque profession apparaissait, comme la rémunération, les responsabilités données. L'analyse a mis en évidence les facteurs de satisfaction du métier de médecin, avec l'organisation du travail, l'utilisation de technologie, la délégation de tâches. Plus spécifiques du métier de généraliste, étaient la nécessité d'une valorisation de la profession de médecin généraliste et la nécessité d'une meilleure reconnaissance académique. La relation avec le patient était importante avec la prise en charge globale et le plaisir de soins variés. Le contact, les groupes de parole, l'enseignement étaient également des facteurs de satisfaction trouvés dans la littérature.

Conclusion : La littérature sur les facteurs positifs en médecine générale est pauvre. Pris individuellement, les articles ne dressent pas un modèle du médecin généraliste satisfait de son métier.

La revue de littérature justifiait le recours à des études qualitatives pour approfondir le sujet.

PRISMA : Diagramme Womanpower revue de littérature



2- Etudes qualitatives en France et en Europe

Etudes qualitatives réalisées en France

Les quatre premières études qualitatives ont été réalisées en France, avec des méthodes qualitatives différentes et des populations de médecins différentes afin de retrouver le maximum de codes.

La première thèse étude a été réalisée par focus groupes en Bretagne.

Les populations étudiées variaient suivant les focus groupes.

FG 1 : Médecins généralistes installés en soins primaires et maîtres de stage d'étudiants

FG 4 : Médecins généralistes femmes installés en soins primaires

FG 2-3-5 : Ensemble des médecins installés en soins primaires.

La seconde étude a été réalisée par entretiens semi dirigés en Bretagne.

La troisième étude a analysé par entretiens individuels les « critères de satisfaction chez les médecins généralistes installés dans un bassin de vie rural depuis moins de cinq ans ». La population étudiée était également en Bretagne.

Une quatrième étude a été menée chez des médecins généralistes de la France entière. Elle a été réalisée par entretiens téléphoniques. Le but était de vérifier qu'aucune donnée nouvelle n'était retrouvée en France.

L'objectif de ces études était de répondre à la question suivante :

« Quels sont les facteurs positifs qui déterminent l'attractivité de la médecine générale et le maintien dans la profession ? »

30 interviews ont été réalisées, ainsi que 5 focus groupes qui a permis d'interroger 38 médecins. L'analyse des données a trouvé 1149 codes ouverts après mise en commun.

Tableau 2 : Grands Thèmes, Thèmes et codes axiaux

GRANDES CATEGORIES	THEMES	CODES AXIAUX
Satisfactions Professionnelles propres au médecin généraliste	L'identité professionnelle du médecin généraliste	aimer aider les gens, se sentir utile un médecin qui a la vocation aimer honorer ses devoirs le rôle du médecin généraliste les traits de caractère pour s'épanouir en médecine générale pourquoi le médecin généraliste aime son

		métier ; rester soi même ; rester un homme ordinaire ; satisfaction à bien exercer la médecine générale ; aimer être le médecin de premier recours, ne pas déléguer trop vite un médecin qui connaît ses limites
	La stimulation intellectuelle du métier de généraliste	la stimulation intellectuelle apprendre en pratiquant des études médicales adaptées avoir eu une autre expérience professionnelle les avantages de la formation médicale continue : continuer à se former les avantages de la formation médicale continue : relations professionnelles et conviviales se réjouir des avancées de la médecine
	Les relations avec les patients	enrichissement humain du médecin par ses patients être respecté par les patients garder de la distance avec les patients l'aspect affectif dans la relation l'éducation des patients liberté du médecin face à ses patients place importante du médecin dans la vie du patient plaisir d'être médecin de famille une prise en charge globale des patients respecter les patients un contact humain riche une bonne prise en charge médicale du patient plaisir d'être médecin référent satisfaction à gérer entièrement ses patients une patientèle qui ressemble au médecin une patientèle qui reste libre une relation de confiance une relation qui s'enrichi dans la durée vieillir avec ses patients
	La reconnaissance	la reconnaissance de la médecine générale la reconnaissance des patients la reconnaissance des proches
	Les satisfactions dans l'exercice de la médecine générale	avoir choisi ce métier les points positifs du statut libéral à chaque médecin sa façon d'exercer une activité riche et varié avoir une patientèle variée la visite à domicile plaisir à gérer les urgences une journée type en médecine générale possibilité d'avoir une activité complémentaire pouvoir avoir un attrait pour certains domaines d'activité

	Les satisfactions à être maître de stage	aspect pédagogique de la maîtrise de stage de bonnes relations humaines avec les internes enrichissement pour l'interne et pour le médecin enrichissement du réseau professionnel grâce à l'interne la maîtrise de stage apporte des connaissances les autres avantages de la maîtrise de stage
	Satisfactions par la permanence des soins	la permanence des soins les avantages de la maison médicale un degré de liberté pour réaliser les gardes
	Une bonne gestion du cabinet médical	les avantages du secrétariat les moyens techniques à disposition les avantages d'une installation en groupe : organisation les avantages d'une installation en groupe : partage de la charge de travail les avantages d'une installation en groupe : relations professionnelles avec les associés
	Un début d'installation réussi en médecine générale	liberté d'installation les avantages à avoir fait des remplacements arriver en terrain connu créer son projet être patient poser le cadre d'emblée avec les patients reprise d'une patientèle
Satisfactions professionnelles non spécifiques au MG	Une bonne organisation professionnelle	liberté d'organisation se fixer des limites dans l'organisation bien gérer sa charge de travail une bonne disponibilité optimiser son temps libre au travail prendre un associé trouver des remplaçants
	Travailler dans un environnement choisi	pouvoir choisir son lieu d'activité satisfactions en rapport avec le lieu d'exercice le lieu de travail conditionne le mode d'exercice richesse de l'offre de soins dans le secteur d'installation trouver son lieu d'habitation exercer proche du lieu d'origine
	Les relations avec la communauté professionnelle	convivialité avec les confrères du cabinet entraide et bonne entente avec les médecins généralistes du secteur relations cordiales avec les spécialistes bonnes relations avec les paramédicaux les avantages de la formation médicale continue : relations professionnelles et conviviales MDS: de bonnes relations humaines avec les internes l'influence positive des médecins mentors

		côtoyer des médecins épanouis lutte contre l'isolement professionnel
	Envisager en bel avenir	préserver sa santé bien préparer la retraite savoir se protéger avoir des perspectives d'évolution facilité pour se réorienter s'investir pour attirer les jeunes médecins
	Satisfactions financières	avoir un rapport raisonné à l'argent laisser l'argent au second plan faire des actes bénévoles une bonne rémunération les autres aspects financiers
	Avoir confiance en l'amélioration du métier	les améliorations pour la formation médicale initiale faire évoluer la pratique les idées d'amélioration de la profession la reconnaissance de la médecine générale de nouveaux modes de rémunération médecine générale : une spécialité une féminisation du métier une médecine basée sur des recommandations une médecine de prévention une médecine plus rigoureuse
	La relation à la communauté sociale	satisfaction par la relation à la communauté
Les Satisfactions personnelles	Avoir du temps libre des vacances	avoir de belles vacances avoir du temps libre liberté d'organisation du temps de travail sortir du milieu médical trouver un équilibre entre vie extra professionnelle-famille-profession
	Se sentir bien au sein de sa famille	soutien et implication de la famille dans ce choix professionnel le conjoint face à ce métier les bénéfices pour la famille déléguer les tâches domestiques une vie de famille épanouie renvoyer une belle image aux proches bonne influence de la famille sur le travail concilier travail et vie de famille préserver sa famille
	Avoir le choix de s'investir ou non dans la communauté	séparer vie professionnelle et vie privée de bonnes relations avec les patients en dehors du cabinet

Les études Européennes.

Sept autres pays européens ont mené des études qualitatives avec un protocole semblable à celui de la France : Allemagne, Belgique, Bulgarie, Finlande, Israël, Pologne, et Slovénie.

Des enquêtes qualitatives par entretiens semi-dirigés ou par focus groups ont été réalisées dans les pays participants, afin de recueillir les facteurs de satisfaction des médecins dans leur vie de généralistes. Au total 183 médecins généralistes ont été interviewés dans les huit pays. Les éléments recueillis ont été regroupés en verbatims.

Les codes issus des verbatims ont été synthétisés en un « livre de codes » comprenant 31 items en langue anglaise, relatifs à la satisfaction dans le métier de médecin généraliste. Ces 31 items ont été répartis en 6 thèmes : le médecin généraliste en tant que personne, les compétences particulières au métier de médecin généraliste, l'organisation positive du métier de médecin généraliste, la relation médecin-patient, l'enseignement de la médecine générale et les facteurs qui soutiennent le médecin généraliste.

Les 31 codes qui sont ressortis des analyses sont résumés ici, suivis d'une explication :

Thème 1 : Le Médecin Généraliste en tant que personne

1/ Aimer son travail

Le médecin généraliste aime son travail, il prend plaisir à aller travailler et est fier de sa profession.

2/ Prendre soin de soi

Le médecin généraliste peut avoir du temps libre. Il veut avoir la possibilité de rester une personne ordinaire. Il se met des limites dans son implication envers ses patients, il connaît ses limites sur le plan professionnel et émotionnel.

3/ S'engager dans la Médecine Générale pour prendre soin des patients

Le médecin généraliste est motivé par l'envie de soigner les gens. Il s'investit auprès des gens et s'engage dans ce métier pour les aider, prendre soin d'eux et répondre à leurs besoins.

4/ Capacité à s'adapter

Le médecin généraliste s'adapte à toutes les situations : différents patients, différentes maladies, différents contextes.

Thème 2 : Les compétences particulières au métier de Médecin Généraliste

5/ Stimulation intellectuelle

Le médecin généraliste vit son métier comme un challenge intellectuel quotidien. Il aime avoir des problèmes complexes à résoudre.

6/ Coordination des soins, défense des intérêts du patient

Le médecin généraliste fait le lien entre le patient et les autres spécialistes, il est le pivot du parcours de soin, il est coordinateur du parcours de santé.

7/ Capacités de communication

Le médecin généraliste sait adapter ses techniques de communication à chaque situation et chaque patient.

8/ Variété dans l'activité

L'activité de Médecin Généraliste couvre tous les domaines de la médecine. Les patients sont diversifiés : âge, culture, personnalités.

Thème 3 : L'organisation positive du métier de Généraliste

9/ Travailler avec de bons collaborateurs

Le médecin généraliste apprécie l'opportunité de travailler et de réfléchir avec ses collègues dans le cadre de relations harmonieuses.

10/ La liberté d'installation

Le médecin généraliste a le choix de son lieu d'installation, de son environnement, des collègues avec qui il va collaborer. Il choisit son lieu de travail suivant ses affinités, ses origines ou les opportunités.

11/ Etre impliqué dans l'organisation des soins

Les médecins généralistes veulent être impliqués dans leur système de soin et dans leur façon d'être payés. Ils sont ouverts à de nouveaux modes de rémunération. Ils peuvent également choisir d'être salariés.

12/ Profiter d'une bonne gestion du cabinet médical

Le médecin généraliste apprécie d'avoir une équipe compétente (secrétaire, remplaçant, équipe paramédicale...). Il organise son propre emploi du temps : journée de repos, avec ou sans rendez-vous, et ses horaires. Il éduque ses patients à sa manière de travailler.

13/ Pouvoir diversifier ses activités

Le médecin généraliste a la possibilité, s'il le souhaite, de se diversifier dans des activités professionnelles parallèles aux soins primaires : médecin dans des clubs sportifs, médecin des pompiers, coordinateur de maison de retraite…

Thème 4 : La relation médecin-patients

14/ Percevoir la gratitude des patients

Le médecin généraliste apprécie la reconnaissance de ses patients.

15/ Pouvoir suivre ses patients au long cours

Le médecin généraliste vieillit avec ses patients et s'engage sur le long terme dans la relation médecin-malade.

16/ Avoir une approche centrée sur le patient

Le médecin généraliste a une approche holistique et centrée sur le patient. Il ne se contente pas d'aborder le problème médical. Il considère l'aspect psychologique, culturel, social et existentiel.

17/ Réussir à négocier une prise en charge avec le patient

Le médecin généraliste aime négocier la prise en charge avec le patient (examens complémentaires, traitements, changements de modes de vie ...). Il cherche des terrains d'entente avec le patient.

18/ S'enrichir d'expériences humaines

Le médecin généraliste apprend en tant qu'être humain au contact de ses patients.

19/ Avoir une relation médecin malade confiante et respectueuse

La relation duale médecin-malade s'inscrit dans un respect et une confiance mutuels. Les patients choisissent librement leur médecin traitant.

20/ Etre le médecin de la famille

Le médecin suit plusieurs générations dans la famille. Il connaît toute la famille sur le long court. C'est une relation spéciale.

Thème 5 : L'enseignement de la médecine générale

21/ Participer à la formation médicale continue

Le médecin généraliste apprécie d'avoir accès à la formation continue. Il veut être plus compétent et plus confiant. Il acquiert des compétences et de l'expérience tout au long de sa carrière.

22/ Etre enseignant et maître de stage

Le médecin généraliste souhaite transmettre son métier aux étudiants en stage. Il veut leur donner une image positive de la médecine générale.

23/ Avoir eu un médecin plus âgé comme référence

Le médecin généraliste s'inspire des médecins rencontrés au cours de sa formation. Il peut lui-même être reconnu comme référence par les médecins plus jeunes et les étudiants.

24/ Etre attractif pour les jeunes médecins généralistes

Le médecin généraliste souhaite être attractif envers les jeunes médecins généralistes désirant s'associer, s'installer, succéder.

25/ La médecine générale reconnue comme une spécialité

La médecine générale est reconnue comme une spécialité à part entière par l'université et les autorités publiques.

26/ Renforcement mutuel des connaissances entre médecin généraliste et étudiants

Les étudiants apprennent au contact des maitres de stage généralistes, et inversement. Cela permet de prendre du recul sur son propre travail.

Thème 6 : Facteurs qui soutiennent le médecin généraliste

27/ Vivre des expériences positives en début de carrière

Une installation réussie favorise le maintien en médecine générale.

28/ Vie privée épanouie

Le médecin généraliste veut être libre de vivre où il le souhaite. Il choisit de séparer ou non vie professionnelle et vie privée. Il a besoin d'un soutien de sa famille et de ses amis. Il veut que lui et sa famille soient intégrés à la communauté sociale.

29/ Etre en sécurité dans son travail

Le médecin généraliste a besoin de sécurité. Il n'a pas la crainte du chômage, les revenus sont suffisants et doivent participer à cette sécurité.

30/ Avoir un équilibre entre rémunération et charge de travail

Le médecin généraliste est libre de gérer la balance entre temps de travail et salaire. La rémunération permet un niveau de vie satisfaisant en décidant de ses heures de travail.

31/ Etre respecté en tant que médecin généraliste

Le métier de médecin généraliste est respecté dans la société et dans la communauté médicale.

3- Etude de consensus Delphi et Groupe nominal :

L'étude de consensus, avec deux rondes par internet en aveugle, invitait les experts à sélectionner les 31 facteurs pertinents. Un groupe nominal par mail ouvert suivait les rondes Delphi pour hiérarchiser les facteurs positifs pertinents pour le recrutement et le maintien dans la profession..

Vingt-neuf experts ont débuté la procédure et 22 l'ont intégralement complétée. Toutes les catégories d'experts étaient représentées dans l'échantillon final.

Trente facteurs ont été sélectionnés par les rondes Delphi. La liberté d'installation n'a pas obtenu consensus.

Le groupe nominal a hiérarchisé :

1°) s'engager dans la Médecine Générale pour prendre soin des patients ;

2°) coordination des soins, défense des intérêts du patient ;

3°) variété dans l'activité ;

4°) avoir une approche centrée sur le patient ;

5°) être impliqué dans l'organisation des soins ;

6°) bénéficier d'une gestion efficace du cabinet médical ;

7°) être enseignant et maître de stage ;

8°) travailler avec de bons collaborateurs.

Ces résultats ont démontré que pour recruter en médecine générale il est nécessaire de développer la coordination des soins, l'approche centrée sur le patient, l'enseignement et la maîtrise de stage et de prêter attention aux facteurs d'organisation.

DISCUSSION

Principaux résultats

L'objectif de cette étude était d'identifier les critères de satisfactions reconnus par les médecins généralistes. Il s'agissait d'une étude qualitative secondaire analysant les données de quatre précédentes études. L'analyse des verbatims des 183 médecins généralistes interrogés en Europe dans huit pays a retrouvé 31 codes axiaux classés en 6 thèmes.

Le thème central est « Le médecin généraliste en tant que personne.

Le médecin généraliste heureux se décrit comme dynamique et enthousiaste. Il a une tendance naturelle à l'empathie et cherche le contact humain. Il est droit et sait qu'il doit faire face à ses responsabilités. Enfin, il sait qu'une bonne santé physique et psychologique lui assure une quiétude dans son activité professionnelle et dans l'avenir.

Les satisfactions professionnelles propres au médecin généraliste sont en tous points superposables aux six compétences fondamentales essentielles à l'exercice de son métier définies par la WONCA Europe (6) :

La gestion des soins de santé primaire ; les soins centrés sur la personne et l'adoption d'un modèle holistique, l'aptitude spécifique à la résolution de problèmes, l'approche globale, l'orientation communautaire.

Les facteurs organisationnels : les médecins sont heureux de travailler dans un environnement qu'ils ont choisi et qu'ils trouvent agréable et adapté. La liberté d'organisation est un facteur de grande satisfaction à leurs yeux. Une bonne gestion de la charge de travail leur garantit un exercice serein. Diversifier leur exercice et acquérir de nouvelles compétences leur permet de renouveler leur intérêt pour le métier. Ils soulignent l'importance d'une harmonie entre vie professionnelle et vie personnelle. Enfin, ils estiment leur rémunération confortable, qui leur permet d'avoir une vie extraprofessionnelle épanouie alliant loisirs et temps en famille.

Les médecins sont satisfaits lorsqu'ils ont réussi à créer une relation médecin-patient de qualité basée sur la confiance et le respect mutuel. Il est important pour eux d'apprendre à « savoir dire non ».

Les relations avec les professionnels de santé constituant leur réseau sont très importantes pour leur bon exercice professionnel. Ils apprécient la convivialité des échanges, le respect mutuel et une communication de qualité avec leurs interlocuteurs.

La qualité du soutien social est primordiale pour leur équilibre. Professionnellement, les collègues sont un soutien du point de vue technique et moral qu'ils retrouvent plus facilement en s'installant en groupe. Personnellement ils sont heureux d'avoir la reconnaissance de leurs proches.

2- L'enseignement : promotion de la médecine générale

Quelle place peut prendre l'enseignement de la médecine générale dans la satisfaction professionnelle du médecin généraliste ? Il y a beaucoup de bénéfice à tirer de cet engagement. Comment le développer auprès des médecins généralistes ? Faciliter l'organisation du médecin pour faciliter cet engagement ? Agir sur les conditions de rémunération ? Faudrait-il revoir la dimension de médecine libérale pour un exercice salarial ?

Actuellement, on constate que le jeune médecin a besoin de poursuivre l'exploration de la profession libérale en réalisant des remplacements. Pour expérimenter différentes formes d'exercices : rural/urbain, seul/à plusieurs... avant de faire son propre choix. La formation de médecin généraliste permet au futur généraliste de faire ses expériences à l'occasion de stages plus nombreux en médecine générale.

3- Force et faiblesses de l'étude :

Les caractéristiques de l'échantillon final représentaient les populations de médecins généralistes européens de huit pays, avec un panel de profils très riche.

Il existe aussi quelques biais d'information qui entrainent un risque d'erreur d'analyse des données.

Le premier est lié au médecin interviewé. La technique des entretiens semi-dirigés et des focus group entrainent parfois une dérive de la conversation en dehors de la question de recherche. De plus, il s'agissait de sujets touchant souvent à l'intime ce qui peut amener l'interviewé vers des mécanismes de défenses tel que la rationalisation, la projection, le refoulement, le déni, ce qui peut endommager les résultats.

Il peut exister un biais d'interprétation des données. En effet L'analyse thématique par codages ouvert, axial puis sélectif implique une part de subjectivité dans l'interprétation des résultats, liée aux propres représentations et hypothèses du chercheur. Mais ce biais a été minimisé par une analyse des données en groupe de travail par les chercheurs européens lors des congrès de l'EGPRN.

CONCLUSION

Partout en Europe, les facteurs de satisfaction au travail des médecins sont les mêmes.

L'idée centrale est celle du médecin généraliste en tant que personne qui a besoin d'un soutien continu et d'un développement professionnel de compétences. Celles-ci découlent des compétences de base de la WONCA. Les généralistes veulent avoir la liberté de choisir leur environnement de travail et d'organiser leur propre travail de pratique en collaboration avec d'autres agents de santé et les patients. Un médecin généraliste fait son métier pour aider son patient, recherche la compétence et la liberté dans son exercice.

Les décideurs politiques doivent être conscients de ces facteurs lors des mesures prises afin d'améliorer la démographie médicale.

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Chapter 9: Summary

This chapter provides a short English summary of this research project.

Background:

All through Europe we are running out of General Practitioners (GPs). WONCA and the World Health Organisation emphasize the central role of general practice in the European Health care systems. Many studies were conducted about why GPs are leaving profession but not why most of them stay in. Research has paid great attention to negative factors explaining this tendency. Strategies to improve capacity were not successful until now. Looking at what makes GPs satisfied in their profession may be important in increasing the General Practice workforce in the future. The General Practice workforce is in decline in France and in Europe.

An EGPRN research team from eight participating countries studied the positive factors for retention of satisfied GPs in their clinical practice throughout Europe.

The research questions of this thesis were:

- Which positive factors give General Practitioners job satisfaction in their profession?

- Which positive factors did attract GPs in their career in practice?

- Can we draw a portrait of the European GP satisfied with his profession?

- Which characteristics are associated with a high level of satisfaction and persistence in the profession?

- Which positive factors determine the attractiveness of General Practice and retention in Clinical Practice?

- Which are the topics, issued from the EGPRN Womanpower group, operational for stakeholders to enhance the GP workforce?

Methods

The first study aim was to produce by a systematic literature review a broad view of the existing research about satisfaction in General Practice, according to the PRISMA statement. The databases searched were Pubmed, Embase and Cochrane. All articles were identified, screened and included by two separate research teams, according to inclusion or exclusion criteria. Then, a qualitative appraisal was undertaken. Next, a thematic analysis process was undertaken to capture any issue relevant to the research question.

During the second study, a French research team studied the perception of job satisfaction in General Practice from medical students and General Practitioners in France. Four qualitative studies were conducted in different setting, between 2011 and 2015 with a phenomenological perspective. Students and GPs were selected, using a purposive sampling strategy, until data sufficiency for each study. Finally, an analysis of the codebooks of these studies was achieved to synthesize the whole data in a common codebook.

The objective of the third study was to explore the positive factors supporting the satisfaction of GPs throughout Europe. The qualitative studies were conducted in primary care in eight European countries with a collaborative perspective: France, Belgium, Germany, Slovenia, Bulgaria, Finland Poland and Israel. The European studies were conducted between 2012 and 2016. Those studies used qualitative methods, employing face-to-face interviews or focus groups with a phenomenological approach. A thematic qualitative analysis was performed following the process described by Braun and Clarke. Codebooks were generated in each country. After translation and back translation of these codebooks, the team clarified and compared the codes and constructed one international codebook used for further coding. The participants were a purposive sample of 183 GPs providing primary care to patients in their daily clinical practice in the eight involved countries.

With the fourth study, the aim was to search which positive factors are the most relevant for the decision-makers in order to improve the recruitment of GPs in France. A Delphi method was chosen, with two round blinded, by Internet, inviting experts to valid, and eventually rephrase, the 31 relevant factors issued from the qualitative

researches. A nominal group by mail followed the Delphi rounds to prioritize the items. This study was conducted between February and April 2017. The experts were GPs or not, union representatives of GPs or GPs students, health insurance representatives, from the Ministry of health, local elected, journalists specialized in care organization care and patients associations.

Results:

The literature review screened 458 records. 104 were eligible. Finally, 17 articles were included. The data revealed 13 subthemes, which were grouped into three major themes for GP satisfaction. First there were general profession-related themes, applicable to many professions. A second group of issues related specifically to a GP setting. Finally, a third group was related to professional life and personal issues. The main result of this literature review is a broad overview of the positive factors, which keep GPs in their clinical practice. This comprehensive view on satisfaction factors cannot be found by reading the individual articles. Most research on GP satisfaction was undertaken in a particular context, with small numbers, and with a focused research question on specific aspects. The research team decided to undertake qualitative studies to go to a deeper way.

During the French qualitative studies, the investigators interviewed 88 students and 71 GPs. A final codebook was created with 66 interpretative codes and 9 themes. The nine themes were: the GP as a person, satisfaction with work in General practice, patient's care and relationships, practice organization and autonomy in practice, relationship with the professional community, satisfaction with skills competencies, GPs and University, GP in the social community, private life with relatives and family. This study identified several positive factors attracting medical students to General Practice and keeping GPs in their profession. This description identified GPs as person patient centred, who needed to have freedom to choose an efficient working environment, to organize their practice and who wanted professional development and specific competences.

To have a comprehensive view of the satisfaction in Europe, the research team undertook a multicentric study. Those studies highlighted a European included 31 interpretative codes and six themes. Five positive themes were common among all the countries involved across Europe: the GP as a person, special skills needed in practice, doctor-patient relationship, freedom in the practice and supportive factors for work-life balance. The main result was the description of the human needs of the European GPs. They need to have freedom to choose their working environment and to organize their practice to suit themselves. In addition, they need to have access to professional education so they can develop specific skills for General Practice, drawn from WONCA's core competencies, and also strengthen doctor-patient relationships.

The consensus study was undertaken to find which positive factors are the most relevant for the decision-makers in order to improve the recruitment of GPs in France? This study was conducted in France. Twenty-nine experts initiated the procedure and twenty-two fully completed it. The Delphi rounds kept thirty factors. The nominal group hierarchized: 1 °) to engage in General Medicine to take care of the patients; 2 °) coordination of care, Advocacy of the patient; (3) variety in activity; 4 °) have a patient-centred approach; 5 °) be involved in the organization of care; 6 °) to benefit from effective management of the practice; (7) be a teacher and tutor in General Practice; 8) work with good collaborators. The results of this consensus study showed that to recruit GPs it is necessary to develop the coordination of care, the patient-centred approach, the teaching in General Practice and to pay attention to the organization of the profession.

General discussion:

What this thesis added?

The literature review:

The literature review draws up a description of the General Practitioner who is satisfied in work. Satisfied GPs are professionals who can keep a reasonable workload balance, which provides sufficient income and who are free to organise

their work and determine how they work. The literature review showed the necessity to look at positive factors using a qualitative approach to have a rigorous qualitative survey on GPs' job satisfaction.

A collaborative study

This research was the first European multicentre study on this topic. The secondary aim was the forming of a European research team according to the EGPRN meeting. This study collected a complete data from eight countries with different language and different health systems. It was challenging to undertake this work with the necessary translations and comprehension of the protocol in each country with low funding.

The European qualitative studies

The first qualitative studies were achieved in France. The other countries conduced each one qualitative study, by focus groups or individual interviews with183 participants at all.

The international codebook

An international codebook was built:

A - GP as a person

B - Special skills/competencies needed in practice

C - Freedom in work organisation

D - Doctor-patient-relationships

E - Teaching and learning

F - Supportive factors for work-life balance

A European GP

This thesis showed that everywhere throughout Europe, GPs experience the same positive factors, which cause them to stay in clinical practice. This result is very new and of importance for General Practice.

Comparison with WONCA core competencies

One of the remarkable results of this thesis was a portrait of a European satisfied GP. We found some codes corresponding to the European definition of General Practice by the WONCA.

Comparison with Frederick Herzberg and Maslow' theories

This thesis validated those theories, but with some specificities. The differences with the satisfaction scales highlighted that the policy makers must treat the GPs' job satisfaction as a particular profession.

The consensus research in France

This study showed that the factors of satisfaction found in general practitioners can be used as recruitment factors. There was consensus among the participants from different settings that promoting these positive factors would improve the primary care workforce.

Strong points and weakness of the research

This thesis is the first European multicentre study on the topic of GPs' job satisfaction. This study got rich in depth data from eight countries. The main contribution of this study is a description of a broad range of factors that GPs consider satisfying in relation to their job in Europe.

The interpretation of the verbatim analysis was a linguistic and cultural problem in eight countries with different languages, but this bias was limited with the group meetings and the important amount of mails and phone discussion during the research process.

Conclusion

Policy makers are concerned about the deficit in medical deserts. This medical deficit problem should be resolved taking into account the other factors of satisfaction. Factors of satisfaction from general practitioners can be used as recruitment factors improving General Practice workforce.

Across Europe, the job satisfaction factors of physicians are the same. The central idea is that of the general practitioner as a person who needs continuous support and professional development of skills. These derive from the basic skills of WONCA. The GP pays attention to his/her work environment and to organize his/her own practice work in collaboration with other health workers and community. A GP wants his/her job to help his patient, seeking competence and freedom in his practice.

Policy makers need to be aware of these factors when taking steps to improve medical demographics.

List of abbreviations

CHU: Centre Hospitalier Universitaire

CNGE: Conseil National des Généralistes Enseignants; French part of the WONCA

CNOM: Conseil National de l'Ordre des Médecins; National General Medical Council

DREES : Direction de la Recherche, des Études et de l'Évaluation des Statistiques

ECN : Examen National Classant

EGPRN: European General Practice Research Network

FMC : Formation Médicale Continue

GP: General practitioner

GPs: General Practitioners

INSEE : Institut National de la Statistique et des Études Économiques

MSA: Agricultural Health Insurance,

MSU : Maître de stage Universitaire

OECD: Organization for Economic Cooperation and Development,

n/a : not applicable

NG: Nominal Group,

UBO: Université de Bretagne Occidentale, France.

WHO: World Health Organization,

WONCA: World Organization of National Colleges, Academies and Academic Associations of General Practitioners/Family Physicians.

Acknowledgments

I would like to warmly thank Pr Lieve Peremans and Pr Hilde Bastiaens for leading this work from Antwerp. Thank you for convening rigor and kindness over the years.

Thanks to Pr Jean-Yves Le Reste for leading this thesis in France. You took me on an incredible journey! We learned a lot from each other during these years of work.

Thanks to Pr Tristan Montier for leading this thesis in France. We already have in common a long trip faculty. I have a lot of gratitude for you.

Merci au Pr Christian Berthou, Doyen de la Faculté de Médecine de Brest. Tu es un exemple pour la médecine. Tu as permis à notre discipline de Médecine Générale de s'épanouir à Brest. Ta compétence n'a d'égale que la gentillesse et la bienveillance. Merci !

Thanks to Pr Paul Van Royen and Pr Harm Van Marwijk for agreeing to be rapporteurs of this thesis. With your knowledge and your kindness, you are for me the image of what we can do best for our discipline.

Thank you Patrice Nabbe for having accompanied me in this course for research. Thank you for your friendship and for being crazy with Jean-Yves and me.

Thank you to Marie Barais for being there. Your youth has been a spice in our old soup.

Thank you to our entire team at the University Department of General Medicine in Brest. It's a pleasure to be with you. Merci à Benoît, Pierre, Jérémy, Delphine, Sophie, Michele, Lucas, Jeanlin, Evelyne, Olivier, Gwenaëlle, Jean-François, Eric. Continuez ! Merci à l'équipe de l'administration.

Merci aux MSU de Brest. Sans vous, rien n'est possible.

Au CNGE, Vincent Renard, Pierre-Louis Druais, Jean-Noël Beis, Jean-Pierre Lebeau, Christian Ghasarossian, Rémy Sénand, Anne Bottet, Alain Mercier, Isabelle Aubin Auger, Denis Pouchain, Dominique Huas et tous ceux impossible à nommer dont le talent forge la Médecine Générale en France.

Merci aux étudiants. Vous nous donnez le plaisir d'avancer.

Thanks to the trainees of the Brest Womanpower team. Sylviane, Florence, Anne, Camille, Romain, Claire, Pierre-Marie, Jacques, Malo, Mael, Perrine, Gilles, Gabrielle, Sophie, Soazig, Juliette, Marine, Fanny, Charlotte, Christelle, Mehdi, Alice, Océane, Léna, Sébastien,

Vincent, Damien, François, Annaig, Virginie, Wit, Jean-Patrick, Ronan, Pierre, Elodie, Prisca, Camille, Maryline, Annaëlle, Pierre, Anna, Katarzyna,

Merci à tous les étudiants en médecine qui ont fait un stage au Guilvinec.

Merci à mes associés du Guilvinec, Denis Barba, Dominique Le Bail et Pascal Ducharme. Nous avons fait toute une carrière ensemble. Merci pour votre soutien. Merci à Cathy et Nelly qui ont su accueillir les patients. Merci à Jannick Saliou : tout a commencé avec toi !

Merci à mes patients… pour leur patience…

Thanks to the European Womanpower team: Heidrun Lingner, Robert Hoffman, Slavomir Czachowski, Radost Assenova, Tuomas Koskela , Zalika Klemenc-Ketis, Agnieska Sowinska.

We are grateful for the comments and suggestions provided by Alex Gillman

We warmly thank the European GPs and the trainees who gave their time for the interviews.

We would like to sincerely thank the European General Practice Research Network for its support in the survey.

A toute ma famille. A mes parents et à Nelly et les siens.

Armelle, sans toi rien n'était possible ! Merci d'être là !

Pierre-Yves et Cécile, Perrine et Mael, Martin… Il y aurait trop à dire !

A Gustave ! A tes futurs frères et sœurs, cousins et cousines ! Be crazy! Be yourself! Obedience is only a dress too big for too thin minds!!

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Chapter 10 : Curriculum Vitæ

Université de Bretagne Occidentale

FACULTE DE MEDECINE DE BREST

Pr Bernard Le Floch
Médecin Généraliste
Professeur des Universités

Titres, Travaux,
Activités professionnelles
Et pédagogique

Etat civil

NOM : Le Floch

Prénoms : Bernard Louis François Marie

Né le : 2 Juillet 1956

A : Paris 15e

Adresse Professionnelle :

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29730 Le Guilvinec

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Diplômes Universitaires

Diplôme d'État de Docteur en Médecine, 1986,
Faculté de Médecine Xavier Bichat, Université Paris VII.

Diplôme Universitaire de Prévention chez l'Enfant,
Faculté de médecine de Brest en 1989.

Situation Professionnelle

Exercice Professionnel :

- Installé depuis janvier 1988 ; en cabinet de groupe de 4 médecins généralistes.
- Il s'agit d'une activité de soins primaires, avec une activité supérieure à la moyenne départementale.

- Médecin agréé par le Préfet du Finistère depuis janvier 2006.

Implication dans les structures professionnelles :

- Membre du bureau de l'Association Départementale pour la Permanence des Soins du Finistère de 2002 à 2012.

Titres et Fonctions Universitaires

- Chargé d'enseignement à la faculté de médecine de Brest dans le cadre du troisième cycle de Médecine Générale depuis 2004.

- Maître de stage auprès de la faculté de médecine de Brest depuis Novembre 2003.

- Tuteur à la faculté de médecine de Brest depuis 2004.

- Responsable du Service Universitaire de Médecine Générale Ambulatoire du Guilvinec depuis Mai 2004.

- Responsable des enseignements de second cycle de Médecine Générale à la Faculté de Médecine de Brest depuis 2006, en association avec Dr Benoît Chiron, MCA, depuis 2012.

- Responsable des stages et enseignement de médecine générale au sein du second cycle depuis 2007, en association avec Dr Benoît Chiron, MCA, depuis 2012.

- Membre du jury de diplôme de validation du second cycle des Etudes Médicales de l'Université de Bretagne Occidentale depuis 2010.

- Maître de conférence associé à la Faculté de Médecine de Brest depuis Septembre 2008.

- Coordonnateur local du DES de Médecine Générale depuis Janvier 2010.

- Professeur associé à la Faculté de Médecine de Brest depuis Septembre 2013.

- Professeur des Universités, Médecine Générale depuis Juillet 2016.

- Coordonnateur régional en Bretagne du DES de Médecine Générale depuis 2018.

Formations complémentaires en pédagogie

Dans le cadre du Diplôme interuniversitaire de pédagogie et communication médicales (Universités d'Angers, de Bretagne Occidentale, de Nantes et de Rennes).
Participation au séminaire : « Etre centré sur l'étudiant en formation clinique : aspects conceptuels et outils. La supervision, le feed-back, le portfolio, la pratique réflexive ». Collaboration de Philippe Bail et Jean Jouquan (Brest) : 17 et 18 avril 2005.

Participation à la faculté de Brest aux formations des internes à la recherche et au travail de thèse.

Participation, animation et expertise des séminaires à Brest du CNGE pour la formation des maîtres de stage ambulatoires. Trois séminaires de deux jours chaque année depuis 2008, en collaboration avec le DUMG de Brest et les experts nationaux du CNGE.

Formations complémentaires à la recherche

Participation aux deux séminaires CNGE « Ecriture », les 4 et 5 février 2010 et 30 juin et 1er Juillet 2010. Expert : Denis Pouchain.

Septembre 2010 : EGPRN-CAPHRI, Anvers, International Primary Care Research Training Curriculum, Qualitative research.

Septembre 2010 : EGPRN-CAPHRI, Amsterdam, International Primary Care Research Training Curriculum, Start Class.

Septembre 2011 : EGPRN-CAPHRI, Maastrich, International Primary Care Research Training Curriculum, Advanced Class.

Octobre 2012 : EGPRN-CAPHRI, Anvers, International Primary Care Research Training Curriculum, Advanced Class.

Titulaire de l' « International Primary Care Research Training Curriculum, Advanced Class. EGPRN-CAPHRI »

Congrès

Congrès EGPRN, 2 fois par an,
Congrès National de Médecine Générale, une fois par an,
Congrès National du Collège National des Généralistes Enseignants, une fois par an,

La participation à ces congrès est active, avec fréquemment présentation de travaux de recherche.

Au niveau du Collège National des Généralistes Enseignants :

Responsable formation du DUMG de Brest auprès du CNGE de 2007 à 2011.

Secrétaire du Collège Brestois des Généralistes enseignants depuis 2007.

Collaboration avec les autres Départements de Médecine Générale du Grand Ouest.

Participations aux réunions des enseignants de MG de l'inter région Grand Ouest.
Pour l'enseignement.
Pour la certification des internes
Pour la recherche
Participations aux journées de Recherche du Grand Ouest à Tours.

Activités d'Enseignement

En Formation Initiale

Coordonnateur local du DES de MG de Brest.
Coordonnateur régional de Bretagne.
Responsable de l'enseignement et de l'organisation des séminaires thématiques de médecine générale à la faculté de médecine de Brest.
Organisation de l'évaluation des internes de médecine générale de Brest.

Dans le cadre de la maîtrise de stage

Accueil, prise en charge pédagogique en milieu ambulatoire de quatre à cinq internes en médecine générale par semestre en temps que maître de stage.

Responsable des travaux dirigés des externes de second cycle depuis Septembre 2007.

Dans le cadre du Tutorat

Suivi pédagogique, évaluation des compétences, aide à la mise en place d'un projet professionnel, directeur de thèse de vingt internes de médecine générale par an.

Dans le cadre du SASPAS

Stage autonome en soins primaires ambulatoires supervisé)

Création en Mai 2004 d'un SUMGA au Guilvinec, Finistère.

Accueil, organisation de l'emploi du temps, organisation des réunions pédagogiques, supervision directe, semi différée et différée de deux internes de médecine générale par an.

Création d'un groupe de pairs pour confronter les internes de médecine générale aux pratiques réelles de leurs confrères seniors dans le cadre du SUMGA du Guilvinec de la Faculté de Brest

Dans le cadre du stage d'externe chez le généraliste :

Accueil, prise en charge pédagogique d'externe en ambulatoire depuis 2007.

Responsable pour la Faculté de Brest de la mise en place du stage d'externe chez le généraliste depuis 2007 : depuis 2012, 100% des externes font un stage réel de MG de 3 mois. Mise en place à Brest de l'organisation de ce stage. Réunions avec les enseignants universitaires de Brest, avec les étudiants, avec les MSU. Collaboration avec le personnel administratif. Elaboration avec l'aide du CNGE du contenu pédagogique du stage, et des documents polycopiés.

Organisation des séminaires d'enseignements pour les externes en complément du stage, et en collaboration avec les MSU.

Coordonnateur du DES

Les fonctions du Coordonnateur du DES à Brest sont de :

- instruire les dossiers dans le cadre de la procédure d'agrément pour la médecine générale des services hospitaliers et ambulatoires,
- participer, comme membre titulaire, à la réunion annuelle de la Commission de subdivision d'internat chargée de l'agrément des services,
- participer, comme membre titulaire, aux réunions semestrielles de la Commission de subdivision d'internat chargée de l'adéquation de l'offre de stages,
- préparer et participer avec la secrétaire aux procédures semestrielles de choix des stages des internes,
- superviser la validation annuelle de chaque interne par analyse de son dossier et par entretien autant que de besoin,
- Organiser les jurys locaux de validation de fin de D.E.S. des internes,
- participer aux commissions interrégionales au sein de l'inter région et nationales.
- coordonner avec chaque coordonnateur de DESC la maquette de stage de chaque interne inscrit en DESC.

Le coordonnateur est également impliqué dans les enseignements du DES en tant qu'organisateur et d'animateur. Il collabore pour ces tâches avec le Directeur du DUMG, Jean-Yves Le Reste, Patrice Nabbe et avec les autres enseignants de la faculté.

Le volume horaire annuel de travail correspondant à ces fonctions de coordination s'alourdit d'années en années.

Stages du second cycle

La demande des étudiants de second cycle est très forte à Brest vers la Médecine Générale. Le travail considérable qui a été réalisé a permis la création d'une équipe de MSU autour du projet. En 2017-2018, 180 étudiants sont inscrits et vont réaliser une stage complet, chez

deux ou trois MSU en général, avec un enseignement théorique et des travaux dirigés dispensés à la faculté par des MSU expérimentés. A Brest, l'intégralité de la promotion accédant à l'ECN aura fait un stage complet d'externe chez le médecin généraliste.
Il faut continuer le travail pour la mise en place du stage ambulatoire du second cycle. Il faut recruter de nouveaux maîtres de stage et les former. Finaliser le projet pédagogique des futurs externes, afin que le nouveau stage soit au mieux profitable.

Au niveau du travail de thèse des étudiants et de la recherche

Continuer et améliorer le travail de recherche au sein du Département de Médecine Générale.
Diriger les thèses de Médecine Générale, en collaboration avec l'équipe des enseignants du département.
Le Cursus de formation à l'Université d'Anvers, et au sein de l'EGPRN a permis à toute l'équipe du DUMG de Brest d'améliorer ses compétences dans le domaine de la recherche.

Conclusion :

La dynamique présente au sein du DUMG de Brest permettra à terme une valorisation de la spécialité Médecine Générale sur les composantes du soin, de l'enseignement et de la recherche.

Travaux Scientifiques et Pédagogiques

Articles en Français publiés :

1. Frèche B, Le Grand-Penguilly J, Le Reste JY, Nabbe P, Barais M, Le Floch B. Les débuts et les modalités d'exercice des étudiants de la faculté de Brest sont-ils influencés par le SASPAS ? Exercer 2011;95:21-4.
2. Le Reste JY, Le Lez N, Le Floch B, Barraine P, Cadier S, Nabbe P. Infections broncho pulmonaires nosocomiales en EHPAD. Le suivi des recommandations suffit pour le traitement. Exercer 2011;95:25-9.
3. Cadier S, Le Reste JY, Gut Gobert C, Barraine P, Chiron B, Le Floch B. Etude SPIFP (spirometry in family Practice). Priorisation des objectifs par la technique du groupe nominal. Exercer 2011 ; 97 : 80-4.
4. Le Reste JY, Millet C, Chiron B, Barais M, Cadier S, Barraine P, Nabbe P, Le Floch B Comment les médecins généralistes ressentent-ils la place des médicaments antidémentiels dans la prise en charge de leurs patients atteints de la maladie d'Alzheimer ? . Exercer 2012 ; 100 :4-10.
5. Le Floch B, Zacharewicz B, Barba D, et al. Analyse et commentaires. Déterminants de la prise d'opiacés chez les marins-pêcheurs. Exercer 2012 ; 100 (suppl1) :425-35.
6. Le Floch B, Le Reste JY. Analyse et commentaires de l'article Impact du traitement par amoxicilline sur la flore streptococcique oropharyngée des patients atteint d'infections respiratoires basses communautaires : Malhotra-Kumar S, Van Heirstraeten L, Coenen S et al. Exercer 2012 ; 101 (suppl2) :785-9S.
7. Le Floch B, Zacharewicz B, Barba D, Chiron B, Barais M, Calvez A, Le Reste JY. Déterminants de la consommation d'opiacés chez les marins-pêcheurs. Exercer 2012;102 :100-6.
8. Le Floch B, Ojedokun J, Keane S, O'Connor K, et al (Irlande). Efficacité de l'annonce pendant la consultation de l'âge pulmonaire sur l'arrêt du tabac. Essai contrôlé randomisé multicentrique Know2quit. Analyse et commentaires. Exercer 2013;106(suppl 2)
9. Le Floch B, Symons L, Ketterer F, Lambrechts MC, Peremans L et al. L'implication des médecins généralistes dans la détection et la gestion des mésusages d'alcool, de drogues illicites, d'hypnotiques et de tranquillisants dans la population adulte belge. Analyse et commentaires. exercer 2013;110(suppl 3):76S-7S

Articles en Anglais publiés :

1. Cadier S, Hummers-Pradier E, Barais M, Barraine P, Chiron B, Le Floch B, Nabbe P, Le Reste JY. Audit about Medical Decision: Data Transmission Concerning Patients with Dementia Entering French Nursing Homes Does Not Confirm the Diagnosis. International Journal of Family Medicine 2010 ; Article ID 857581.

2. Jean-Yves Le Reste, Magali Coppens, Marie Barais, Patrice Nabbe, Bernard Le Floch, Benoît Chiron, Geert Jan Dinant, Christophe Berkhout, Erik Stolper, Pierre Barraine (2013) The transculturality of 'gut feelings'. Results from a French Delphi consensus survey, 1-7. In European Journal of General Practice.

3. JY Le Reste, P Nabbe, B Manceau, C Lygidakis, C Doerr, H Lingner, S Czachowski, S Munoz, S Argyriadou, A Claveria, B Le Floch, M Barais, P Bower, H Van Marwijk, P Van Royen, C Lietard (2013) The European General Practice Research Network presents a comprehensive definition of Multimorbidity in Family Medicine and Long-Term Care, following a systematic review of relevant literature., 319-325. In Journal of the American Medical Directors Association 14 (5).

4. Le Reste JY, Chiron B, Le Floch B, Nabbe P, Barais M, Mansourati J, Cadier S, Barraine P, Lietard C. There are considerable drawbacks to oral anticoagulant for monitoring patients at home which should lead family physicians to discuss alternative or enhanced solutions: a cross-sectional study. BMC Cardiovasc Disord. 2013 Sep 11;13:71. doi: 10.1186/1471-2261-13-71.

5. Marzo C, Lygidakis C, Nabbe P, Lazic D, Assenova R, Doerr C, Lingner H, Czachowski S, Munoz M, Argyradiou S, Claveria A, Hasaganic M, Le Floch B, Deriennic J, Van Marwijk H,Van Royen P, Le Reste, J. Y. Definizione della multimorbidità in MG : una revisione sistematica. Medicinae Doctor, 2014;1,32–34.

6. Kasuba Lazic D, Le Reste JY, Murgic L, Petricek G, Katic M, Ozvacic-Adzic Z, Cerovecki Nekic V, Nabbe P, Hasanagic M, Assenova R, Lygidakis H, Lingner H, Doerr C, Czachowski S, Sowinska A, Le Floch B, Munoz M, Argyriadou S, Van Marwijk H, Lietard C, Van Royen P. Say it in Croatian – Croatian translation of the EGPRN definition of Multimorbidity using a Delphi consensus technique. Collegium Antropologicum.

7. Le Reste JY, Nabbe P, Rivet C, Lygidakis C, Doerr C, Czachowski S, Lingner H, Argyriadou S, Lazic D, Assenova R, Hasaganic M, Munoz M, Thulesius H, Le Floch B, Derriennic J, Sowinska A, Van Marwijk H, Lietard C, Van Royen P. The European General Practice Research Network presents the translations of its comprehensive definition of Multimorbidity in Family Medicine in ten European languages. PLoS One. 2015 Jan 21;10(1):e0115796. doi: 10.1371/journal.pone.0115796. eCollection 2015.

8. Le Reste JY , Nabbe P, Lingner H, Kasuba Lazic D, Assenova R, Munoz M, Sowinska A, Lygidakis C, Doerr C, Czachowski S, Argyriadou S, Valderas J, Le Floch B, Deriennic J, Jan T, Melot E, Barraine P, Odorico M, Lietard C, Van Royen P, Van Marwijk H. What research agenda could be generated from the European General Practice Research Network concept of Multimorbidity in Family Practice? (A nominal group survey). BMC Family Practice 2015;16:125.

9. Barais M, Barraine P, Scouarnec F, Mauduit A-S, Le Floch Bernard, Van Royen P, Lietard C, Stolper E. The accuracy of the general practitioner's sense of alarm when confronted with dyspnoea and/or thoracic pain: protocol for a prospective observational study. BMJ Open 2015.

10. Le Reste JY, Nabbe P, Lazic D, Assenova R, Lingner H, Czachowski S, Argyriadou S, Sowinska A, Lygidakis C, Doerr C, Claveria A, Le Floch B, Derriennic J, Odorico M, Van Marwijk H, Van Royen P. How do General Practitioners recognize the definition of Multimorbidity? A European qualitative study. Eur J Gen Prac 2016;22(3):159-68.

11. Le Floch B, Bastiaens H, Le Reste JY, Lingner H, Hoffman RD, Czachowski S, Assenova R, Koskela TH, Klemenc-Ketis Z, Nabbe P, Sowinska A, Montier T, Peremans L: Which positive factors determine the GP satisfaction in clinical

practice? A systematic literature review. BMC Fam Pract 2016, 17:133.

12. Nabbe P, Le Reste JY, Guillou-Landreat M, Munoz Perez MA, Argyriadou S, Claveria A, Fernández San Martín MI, Czachowski S, Lingner H, Lygidakis C, Sowinska A, Chiron B, Derriennic J, Le Prielec A, Le Floch B, Montier T, Van Marwijk H, Van Royen P. Which DSM validated tools for diagnosing depression are usable in primary care research? A systematic literature review. Eur Psychiatry. 2017 ;39:99-105.

Communication congrès nationaux :

1 Bail P, Barraine P, Le Floch B, Cadier S, Le Reste JY, Nabbe P. **Comment faire face aux contraintes du DES de MG en conservant le cadre pédagogique du tutorat ? Réflexions au terme de 10 ans de mise en place du tutorat à Brest**. Communication orale au congrès du CNGE Angers Novembre 2008

2 Le Floch B, Cadier S, Le Reste JY, Bail P. **Stage d'Externat en Médecine Générale : contexte historique brestois, projets pour 2009**. Communication orale au congrès du CNGE Angers Novembre 2008

3 Cadier S, Lopin C, Le Floch B, Le Reste JY, Bail P. **Former les internes de médecine générale (IMG) aux méthodes de recherche. Scenario pédagogique brestois**. Atelier 8ème congrès du CNGE (Collège National des Généralistes Enseignants), Angers, novembre 2008.

4 Keruzoré B, Cadier S, Barraine P, Nabbe P, Le Floch B, Nowak E, Le Reste JY. **Déterminants non cliniques de prescription d'antibiotiques dans la rhinopharyngite de l'enfant et concordance de ces déterminants avec les pratiques de la population des médecins généralistes Finistériens.** Communication orale 3ème congrès de la médecine générale Nice, juin 2009.

5 Coppens M, Cadier S, Le Floch B, Nabbe P, Barraine P, Chiron B, Jaubert C, Barais M, Le Reste JY. **Sixième sens en médecine générale. Appropriation des critères néerlandais par les enseignants associés de médecine générale**. Communication orale au congrès du CNGE, Toulouse, Novembre 2009.

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Université de Bretagne Occidentale

Titre : Quels facteurs positifs déterminent l'attrait vers la Médecine Générale et le maintien dans la pratique clinique ?

Mots clés : Médecine générale, Satisfaction, Choix de carrière; Système de soins de santé; Médecin; Soins de santé primaires.

Résumé : Introduction : Les pays de l'OCDE, dont la France, sont confrontés à une pénurie de médecins généralistes. De nombreuses recherches étudient les côtés négatifs de la spécialité pour l'expliquer. Il existe cependant des médecins heureux d'être généralistes et souhaitant rester en soins primaires. Le projet de recherche de l'EGPRN était de mettre en évidence les facteurs de satisfaction du médecin généraliste, dans les pays participants. L'hypothèse de recherche de ce projet est qu'il doit exister des médecins généralistes heureux et motivés par leur métier et que ces facteurs positifs pourraient être utilisés pour promouvoir l'attrait vers la Médecine Générale et le maintien dans la pratique clinique.
Méthode : La première étape de cette thèse a été la réalisation d'une revue systématique de la littérature pour répertorier les différents facteurs de satisfaction des médecins généralistes déjà étudiés. Pour la seconde étape, des études qualitatives par entretiens semi-dirigés ou par focus groups ont ensuite été menées auprès de médecins généralistes dans les huit pays participants. La troisième étape consistait en une recherche de consensus par la méthode Delphi puis hiérarchisation par groupe nominal.
Résultats : Les enquêtes qualitatives par entretiens semi-dirigés ou par focus groups réalisées dans les pays participants ont permis d'interroger 183 médecins généralistes ont été interviewés dans les huit pays. Des codes issus des verbatims a été créé un « livre de codes » comprenant 31 items qui ont été classés en 6 thèmes : le médecin généraliste en tant que personne, les compétences particulières au métier de médecin généraliste, l'organisation positive du métier de médecin généraliste, la relation médecin-patient, l'enseignement de la médecine générale et les facteurs qui soutiennent le médecin généraliste.
Conclusion : Les résultats de l'étude de consensus ont montré que pour recruter en médecine générale il est nécessaire de développer la coordination des soins, l'approche centrée sur le patient, l'enseignement et la maîtrise de stage et de prêter attention aux facteurs d'organisation.

Title : Which positive factors determine attractiveness to General Practice and retention in Clinical Practice ?

Keywords : General Practitioners; Job satisfaction; Career choice; Health care system; Physician; Primary Health care.

Abstract : Introduction: OECD countries, including France, face a shortage of general practitioners. Many research studies the negative sides of the specialty to explain it.
The research project of the EGPRN was to highlight the factors of satisfaction of the general practitioner, in the participating countries. The research hypothesis of this project is that there must be well being and motivated GPs and that these positive factors could be used to promote attractiveness to General Medicine and maintenance in clinical practice.
Method: The first step of this thesis was the realization of a systematic review of the literature to list the various factors of satisfaction of general practitioners already studied. For the second stage, qualitative studies by semi-structured interviews or focus groups were then conducted with general practitioners in the eight participating countries. The third step consisted of a consensus search by the Delphi method then hierarchization by nominal group.
Results: Qualitative surveys by semi-structured interviews or focus groups conducted in the participating countries were used to interview 183 general practitioners interviewed in the eight countries. Codes from verbatim were created a "codebook" comprising 31 items that were classified into 6 themes: the general practitioner as a person, the skills specific to the profession of general practitioner, the positive organization of the profession of doctor generalist, the doctor-patient relationship, the teaching of general medicine and the factors that support the general practitioner.
Conclusion: The results of the consensus study showed that to recruit in general practice it is necessary to develop care coordination, patient-centered approach, teaching and internship control and to pay attention to factors organization.