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Integration of nurses in general practice: A thematic synthesis of the perspectives of general practitioners, practice nurses and patients living with chronic illness

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Abstract

Aims and objectives: To explore the views of general practitioners, practice nurses and patients on interprofessional collaboration in general practice and to understand to what extent the nurse–doctor relationship meets their needs and expectations.

Background: To address future challenges of primary health care, there is a need for integrated interprofessional collaboration care systems with a patient-centred focus. Worldwide, there is an integration of nurses in general practice. However, in a transitioning Belgian context little is known about the perspectives of three key stakeholder groups.

Design: The results of four qualitative descriptive primary studies were triangulated and a secondary analysis resulted in a thematic synthesis within a pragmatic research paradigm.

Methods: Primary data were collected through individual, semi-structured interviews with 7 general practitioners, 19 practice nurses and 21 patients living with chronic illness in 26 primary care centres with different nurse integration levels. We conducted a secondary analysis for the thematic synthesis of the different stakeholders' perspectives. This study was reported in accordance with the COREQ checklist.

Results: Four overarching themes were found as follows: vision and mission at general practice level, patient-centred care, practice nurse role development and interprofessional collaboration. Interprofessional collaboration within general practice ensures better response to patient needs. Evolution of the practice nurse role to autonomous decision-making can be facilitated by clear vision and mission, team communication, complementarity of responsibilities and trust-based professional relationships.

Conclusions: The key for patient-centred care in a well-organised practice is a clear vision and mission and well-defined task description for interprofessional collaboration. General practice is urging for systematic guidance for the sustainable integration of a practice nurse.

Relevance to clinical practice: Our study highlights opportunities and challenges to nurse integration in general practice from key stakeholders' perspectives, which can inform other transitioning contexts.

Naomi Aerts, Peter Van Bogaert, Hilde Bastiaens, and Lieve Peremans takes responsibility for all aspects of the reliability and freedom from bias of the data presented and their discussed interpretation.

KEYWORDS
chronic disease, clinical competence, general practice, general practitioners, interprofessional relations, nurse's role, nurse practitioners, patient-centred care, primary health care, qualitative research

1 | INTRODUCTION

The context of health care worldwide, influenced by demographic, social and policy evolutions, places overwhelming demands on healthcare systems (Roland & Nolte, 2014). An ageing population and the increasing prevalence of noncommunicable diseases and multimorbidity lead to a high burden on healthcare systems (Fortin, Hudon, Haggerty, van den Akker, & Almirall, 2010; World Health Organization, 2018). By the year 2050, 39% of the Belgian population will be aged 67 years or older and 10% will be even more than 80 years old. An estimated 55% of the population is diagnosed with at least one chronic disease. Complex chronic diseases and multimorbidity represent up to 80% of the demands for care (Belgian Health Care Knowledge Centre, 2012), reinforcing the need for building and maintaining a strong primary health care (PHC) to deliver both preventive health care and ongoing chronic disease management (World Health Organization, 2018). Countries worldwide are encouraged to develop new models of PHC delivery with patient-centred care as one of the main objectives (World Health Organization, 2013). Interprofessional, collaborative practice occurs when multiple health workers from different professional backgrounds work together with patients, families, caregivers and communities to deliver the highest quality of care (World Health Organization, 2010).

What does this paper contribute to the wider global clinical community?

- This paper demonstrates that a clear vision and mission statement amongst team members supported from a shared understanding of the concept of care and transparency towards patients thereof are crucial in implementing an interprofessional model of care in general practice.
- This study highlights the value of clearly defined roles and responsibilities in the transition from instrumental collaboration (task delegation) towards a more integrated collaboration (autonomous decision-making) within interprofessional teams in primary health care.
- This paper deepens our understanding of traditional role concepts legal frameworks and reimbursement schemes as limiting barriers to a more integrated interprofessional collaboration which is required by current and future challenges in primary health care

2 | BACKGROUND

The conceptualisation and implementation of PHC are highly variable in different settings. The study of Kringos and colleagues (2013) concluded that Belgium has a strong overall PHC system in comparison with other European countries, based on indicators like structure and delivery process (Kringos, Boerma, Bourgueil, et al., 2013). Despite the negative factor of higher costs, there are better health outcomes in general population (Kringos, Boerma, van der Zee, & Groenewegen, 2013). The growing importance of general practice in the context of current developments in Belgian PHC is illustrated by data from the National Health Survey and health insurances' registration data. Nearly, the entire population (94%) is registered with a regular general practitioner (GP), and on average, patients have four contacts with their GP each year. Essential components of the GP's mission include elderly care, addressing health inequalities, preventive care, quality assurance and protocol-based care for defined populations living with chronic illness (Charafeddine et al., 2011). Challenges of the expanded role for GPs are an increased workload and the need for acquiring or improving competencies for interprofessional collaboration (Roland & Nolte, 2014). This model conflicts with the current organisation of general practice in Belgium, where GPs are traditionally self-employed in single-handed practices or small monodisciplinary teams. Moreover, national workforce studies report differences in GP density causing an impending shortage in certain regions. GP demographics, with 75% being aged 45 and older, feminisation of the medical profession and young GPs pursuing better work-life balance through part-time employment make the need for change more urgent. Certain Belgian regions will not be able to overcome the impending GP deficit during the next few years (Kringos, Boerma, Hutchinson, Allen & Saltman, & Richard, 2015; OECD/European Observatory on Health Systems and Policies, 2017).

These challenges contribute to an increase in service capacity that is needed to cover a rising demand, overcome a shortage of physicians in certain settings, improve the quality of care and reduce healthcare costs by employing the "lowest cost provider" (Vrijens et al., 2015). Many countries have sought to shift tasks within PHC from physicians to nurses in order to meet these challenges as efficiently as possible in the future. Nevertheless, a better understanding of the potential contribution of nurses working in general practice is needed (Ball, Maben, & Griffiths, 2015). Research has demonstrated that this task shift generates similar or better health outcomes for a broad range of patient conditions, relieves the GP's

workload, decreases healthcare costs, improves satisfaction of both patient and healthcare provider (HCP) and provides equivalent or improved quality of care (Gielen, Dekker, Francke, Mistiaen, & Kroezen, 2014; Laurant et al., 2018; Martínez-González et al., 2014; Martínez-González, Tandjung, Djalali, & Rosemann, 2015; Parker, Maresco-Pennisi, Clifton, Shams, & Young, 2016; Riisgaard, Nexoe, Le, Sondergaard, & Ledderer, 2016; Watts & Lucatorto, 2014). A recent overview of systematic reviews by Matthys Remmen, & Van Bogaert, (2017) demonstrated that collaboration between physicians and nurses may have a positive impact on a range of patient outcomes and on a variety of pathologies when embedded within integrated interprofessional collaboration care models with adequately educated nurses (Matthys et al., 2017). In contrast to other countries, experiences in Belgium with an interprofessional approach in general practice are scarce. A recent cross-sectional study showed that 30% of the 271 included general practices are supported by a practice nurse (PN), only an estimated 5% of which have implemented a interprofessional collaboration model (Matthys, Remmen, & Van Bogaert, 2019). Nevertheless, reorganisation of general practice is needed in the context of Belgian PHC, with policy currently evolving from fragmented care towards an integrative approach (Wallyn & Massant, 2017).

The direct relationship between GP, PN and patient is substantially affected by this current transition. However, little recent research has been done on a comprehensive approach taking these three essential perspectives into careful consideration. Therefore, the aim of this study was to explore the views and experiences of GPs, PNs and patients living with chronic illness in relation to the shift to an interprofessional approach in general practice and to understand to what extent this new partnership between a PN and the GP meets the individual and joint needs and expectations of each of the three stakeholder groups.

3 | METHODS

3.1 | Design

In this study, we conducted a thematic synthesis of four unpublished primary studies, all of which had a qualitative descriptive research design and used an exploratory approach within a pragmatic paradigm (Creswell & Clark, 2011). The aim of each study was to gain understanding in this innovative transition in PHC from different stakeholders' perspectives. The primary studies were carried out as master theses by junior researchers, who were supervised by the author team: three female master's students in nursing and midwifery and one male master's student in medicine. All four studies had good coherence and were methodologically sound. Their findings were triangulated and synthesised in one comprehensive report on different key stakeholders' perspectives. The body of data from the primary studies supporting the findings of this synthesis is applicable to the context of our research question (Lewin et al., 2018).

3.2 | Sampling and recruitment

The researchers of the four primary studies recruited respondents from various general practices, with a planned or existing formal collaboration with a PN at the time of the study. Their aim was to include general practices varying in geographical location, practice capacity and level of partnership between the GPs and other HCPs within their clinical setting. Single-handed practices were excluded, because of their lack of experience with team-based care. Invitation letters were sent to eligible general practices, inviting GPs and PNs to participate as respondents or to assist in the recruitment process of the patient sample. The four researchers sought a purposive sample, each within their specific target population. One researcher focused on registered nurses who had been employed in a general practice for at least six months. A second one recruited GPs who had been active in general practice for at least three years. The third and fourth researchers each included patients living with at least one chronic illness during a minimum of one year and with a need for a regular follow-up within primary care. Within all three target populations, a heterogeneous sample was intended to reflect maximum variation with regard to personal (e.g. sex, age, place of residence, socio-economic class, family situation) and professional (e.g. education degree, full/part-time regime, seniority, additional training) or medical (e.g. type and number of chronic disease(s), comorbidity, care process, follow-up period) characteristics. Individuals were excluded when they were underage or pregnant, had insufficient knowledge of the Dutch language or were exclusively managed for acute illness or diagnosed with chronic illness less than one year ago.

Overall, 26 general practices agreed to participate in the four primary studies, 20 of which reported a formal collaboration with a PN. The level of PN integration in patient care management varied from instrumental, meaning that nurses' activities were mainly on a technical level described by task delegation, to full integration of nurse-led components, including autonomous decision-making. In 16 general practices, at least one PN (n = 19) participated, and in another five general practices, seven GPs took part. One of these practices took part in the recruitment of patients as well. In addition, four general practices and one community health centre[1] agreed to recruit patients. A HCP (GP or PN) in each of these participating practices nominated patients that met the inclusion criteria (n = 21). Table 1 outlines the characteristics of participants and their PHC setting, respectively.

3.3 | Data collection

Primary data were collected through an individual in-depth interviewing technique appropriate to the descriptive and exploratory approach. Each researcher independently developed a flexible, semi-structured data collection tool to guide the interviews with

[1]In Belgium, a "community health centre" is a multidisciplinary PHC team which is embedded in a third payer financial system, thus making PHC accessible for vulnerable populations.

TABLE 1 Study population and setting characteristics

Practice nurse (PN) characteristics (*N* = 19)				
Gender				
Male	1	Additional training	Management & leadership	1
Female	18		Additional baccalaureate degree	4
Age (years)				
<30	4		Practice nursing (Netherlands)	1
30–40	5		Diabetes specialist	7
41–50	6		Wound care	5
>50	4		Spirometry	3
Full/part-time status (%)				
<75	8		Medical pedicure	3
≥75	11		Radiology	2
Tenure in current practice (years)				
<5	11		Palliative specialist	2
≥5	8		Pain management	1
Employment status				
Employed	18		Other	5
Self-employed	1			
Educational qualifications in nursing				
Higher professional education	3			
Baccalaureate degree	14			
Master's degree	2			
General practitioner (GP) (*N* = 7) characteristics				
Gender				
Male	2	Employment status	Self-employed	7
Female	5	Family status	Partner	1
Age (mean ± *SD*)	43.1 ± 7.6		Partner & kids	6
Age (years)				
30–40	3	Tenure in current practice (years)	<5	1
41–50	2		5–10	3
>50	2		>10	3
Full/part-time status (%)				
<75	1			
≥75	6			
Patient characteristics (*N* = 21)				
Gender				
Male	11	Chronic illness	Type 2 diabetes	14
Female	10		Cardiovascular disease	11
Age (mean ± *SD*)	63.1 ± 14.6		Respiratory disease	3
Age (years)				
<50	4		Stroke	3
50–65	7		Mental health disorder	3
66–80	8		Other	7
>80	2	Chronic illness comorbidity	1	7

(Continues)

TABLE 1 (Continued)

Patient characteristics (*N* = 21)				
Area of residence				
Urban	10		2–3	10
Rural	11		>3	4
Follow-up period in years (mean ± *SD*)				
By current GP[a]	14.5 ± 6.3			
By current PN[b]	4.8 ± 3.7			
Primary healthcare (PHC) setting characteristics (*N* = 26)				
Type of centre				
Community health centre	1	Disciplines present, other than GP/PN	<3	10
General practice	25		≥3	16
Location[c]				
Urban	4	PN present	*N* = 20	
Rural	6	Level of PN involvement	Instrumental	19
			Integrated	1
Level of partnership between GPs				
Duo	7			
Group	16			
Other	3			

[a]*N* = 13 because of missing data regarding other patients.

[b]*N* = 11 because the other 10 patients had no experience with a PN in their primary care setting.

[c]*N* = 10 because of missing data regarding other general practices.

key topics related to the research question, tailored to the subpopulation targeted in each of the primary studies (Table 2). The interview scripts included the following: the interviewer's educational background, rationale of the research, research topic and data collection method, and a short questionnaire to gather demographic characteristics. All interviews were face-to-face at the participant's home or at the general practice and were audio recorded. The interviewers provided a robust and detailed account of their experiences during data collection in thick description. It is hoped that this contributes to a richer and fuller understanding of the research setting, enabling the reader to determine the level of transferability to other primary care settings. Along with compiling detailed field notes during each interview, these methods contributed to the trustworthiness of the data collection. Data were collected until data sufficiency was reached on the research topic for each stakeholder group. Interviews were conducted between December 2015 and March 2016. This data collection method generated four separate primary data sets.

3.4 | Data analysis

3.4.1 | Primary analysis

The four researchers each analysed their data set iteratively using an inductive, thematic approach. They familiarised themselves with the interview data and transcribed them verbatim within 48 hr. First, the researchers assigned descriptive codes to relevant narratives, and in a second step, these codes were interpreted in relation to the research topic, resulting in interpretative codes. Recurrent, distinctive aspects of the data were considered relevant subthemes and aggregated to themes. Employing a spiral coding-recoding strategy, this iterative and reflexive analysis process was characterised by constant recurrence of these different steps. The four researchers independently analysed one transcript of another data set, and in case of inconsistency, they discussed until coding consensus was met. This qualitative thematic data analysis generated four separate codebooks and preliminary reports of results for each primary data set. The methodological quality of each of the original reports was confirmed by a master thesis assessment procedure.

3.5 | Secondary analysis

During the secondary analysis, the author team of this study (first author NA and senior researchers PVB, HB, LP) triangulated the four preliminary reports by comparing, contrasting and corroborating the perspectives from different stakeholder populations. The used methodology contributed to a more in-depth understanding of the research topic (Wilson, 2014). We applied the principles of thematic synthesis (Tacconelli, 2010) in merging and modifying the data as presented in the preliminary reports. In a first step, we independently developed preliminary overarching themes

TABLE 2 Description of topics used to guide interview sets

Topic	Description and aim
All samples	
Integration of PN	Explore participant's recognition of nursing competences and skills. Is participant open to acknowledge role expansion of nurses (or other disciplines within the general practice) and in what circumstances would stakeholders benefit most? Describe attitude towards this innovation taking into account transforming patient–GP relationship. What scope is there to engage the PN in collaboration, possibilities for improvement?
PHC in general practice	Describe current follow-up and guidance of patients living with chronic illness in PHC and more specific the general practice. Which are the complex care needs and to which extent are expectations consistent with the care offered? Outline participant's experience with the tense circumstances under which PHC is performed
HCP samples specific (PN & GP)	
PHC setting	Learn about different aspects of the context. Describe the shared vision and mission by which team members are bound, practice layout, organisation of work process, existing care partnerships and disciplines present. Take notes on financial structure and practice capacity. Which are/were the incentives to consider/adopt PN integration in practice?
Organisation of current or future PN competences & skills	Describe integration level of the PN in practice activity. How are the PN's activities embedded in organisation and structure of the practice? Categorise responsibilities/tasks and further development. Explain link between the PN and other team members (e.g. communication strategies, relating roles). Under which necessary conditions?
Patient sample specific	
Illness perception & course	Explain the timeline of the chronic disease from diagnosis to present stage. How are following aspects perceived: identity, consequences, extent to which the disease is embedded in everyday life and in their environment. What are the individual care needs and future goals depending on the severity (including comorbidity) and illness duration?
Disease management	What is the patient's view on treatment and expectations about treatment, scope for ownership? Describe level of involvement in disease management. Insight in cause, consequence, cure-control. Share opinion relating to motivation and adherence, challenges, possibilities, quality of life

based on the preliminary results and underlying codebooks. All themes were coherent over the four studies and relevant to answering the research question. Next, we used the new overarching themes as a frame and engaged in an inductive, iterative, cyclic secondary analysis process, with constant feedback loops to the primary studies' codebooks to make sure the original messages were captured. Confirmability is further demonstrated by the use of verbatim quotes, translated—back-translated, to provide the participants' voice rather than exclusively the researchers' data interpretations. The author team discussed and reflected on this process, following a peer debriefing procedure to support credibility. Team analysis assisted in identifying personal or professional bias of the researchers through self-reflection, which is important to establish dependability. To meet the overall quality standards, we followed the Consolidated Criteria for Reporting Qualitative Research (COREQ) reporting guidelines (see Supplementary File 1) (Tong, Sainsbury, & Craig, 2007).

3.6 | Ethical considerations

The appropriate local ethics committee formally granted ethical approval for the four primary studies. Participation was voluntary, signed informed consent was obtained from all participants prior to the interview, and they all had the right to withdraw consent at any time. Pseudonymisation of the qualitative data was ensured so that the identity of clinical settings and respondents can no longer be retrieved, and confidentiality of all collected data is guaranteed.

4 | RESULTS

After the secondary analysis, four overarching themes could be derived from the data: *vision and mission at general practice level*, *patient-centred care*, *practice nurse role development and interprofessional collaboration*. Table 3 summarises the main findings within each of these themes by stakeholder group.

4.1 | Theme 1. Vision and mission at general practice level

Both GPs and PNs indicated that a shared understanding of the concept of care is important for interprofessional collaborative practice. A clear vision and mission statement, supported by all members of the general practice team, is essential in overcoming the challenges in PHC and in strengthening the trust-based professional relationship between the team members. Respondents indicated that lack of consensus and transparency hinders their daily practice activities due to insufficient trust in each other. Some GPs indicated that this is also the reason why they remain cautious about sharing responsibilities with a PN.

> *In our general practice, I think we strive to really keep primary health care at that primary care level. That is the vision that we think is translated into our mission and strategy.*
>
> *(GP, F, 36 yrs.)*

TABLE 3 Summary of main findings within the four themes by stakeholder group

	1. Vision and mission at general practice level	2. Patient-centred care	3. Practice nurse role development	4. Interprofessional collaboration
General practitioners	Comprehensive, holistic approach - Patient-centred care Patient safety Quality of care Fit between personality & practice profile Team approach - Team cohesion versus hierarchy - Incongruence between GPs Trust-based relationships - Building trust through familiarisation, competence, professional & personal attitude & values, structured communication	Interprofessional collaboration Trust-based relationships - High value of doctor–patient relationship - Maintaining personal contact with patient - Protective of doctor–patient relationship versus threat of new nurse–patient relationship	GP focus on core medical business Role & responsibility - Setting-dependent - Administration & logistics - Medical technicalities - Prevention - Chronic disease - Innovation & quality improvement Professionalism - Role-specific competence development: previous work experience & specific education tailored to general practice needs - Difficult balance between supervising GP role versus. nurse autonomy	Overburdened primary health care - High workload: ageing of population & multimorbidity - Work-life balance Practice organisation - Supervising role of GP - Responsibility conflicts Facilitators/barriers - Tailored guidance for practical implementation - Financial restraints - Governmental support - Time & resources - Learning community - Information on meso- & micro-level
Practice nurses	Shared ideology - Social commitment Team approach - Equal partnership - Shared decision-making - Mutual respect for different - perspectives Acknowledgment - of input & opinion Trust-based relationships - Building trust through familiarisation, competence, professional & personal attitude & values, open communication	Trust-based relationships - Investing in new nurse–patient relationship - Building trust through familiarisation, phased transition - High accessibility	Professionalism - Expanding field of nursing - Gaining responsibility - Working autonomously - Job satisfaction - Within legislative framework Role & responsibility - Dynamic development - Setting-dependent - Administration & logistics - Medical technicalities - Prevention - Chronic disease - Innovation & quality improvement	Overburdened primary health care - Reorganisation general practice - Multidisciplinary practice Practice organisation - Task delegation versus autonomous decision-making - Protocol-based care - Interprofessional consult Facilitators/barriers - Role-specific competence development - Within-team trust - Guidance from GPs - Clear work organisation with team input
People living with chronic illness	Trust-based relationships - Mutual trust between team members Team approach - Close collaboration Shared goals & core values - Transparency to patient - Incongruence between HCP	Individualised care - Needs oriented - Goal-oriented - Tailored to preferences & expectations - Context matters - Patient empowerment in disease management Health advocacy - Theory-practice gap - Navigating health care system Trust-based relationships - Traditional doctor–patient relationship - Open communication - Facilitates disease management - Building trust through familiarisation, competence, professional & personal attitude & values	Social skills - Communication - Motivational interviewing - Personality Professionalism - Working autonomously - Confidence in own - competences - Referral to other HCP - Role-specific competence development: previous work experience & education	Overburdened primary health care - Reorganisation general practice - Waiting times - Consultation times Practice organisation - Familiar contact person - Shared follow-up of chronic disease - Complementary roles - Continuity of care - Close interaction Facilitators/barriers - Role clarity - Transparent communication - Structure, organisation & information on macro-, meso-, micro-level - Building trust

What I always think is that it should click. What kind of person fits in well with the team and the practice profile? The personality of the nurse must click with our patients as well as with us, the GP team, because we need to work together closely.

(GP, F, 36 yrs.)

I now have more responsibility than I had a few years ago. It's a mutual trust issue which has grown gradually. The doctors and I, we find each other in competence. Making clear agreements and being able to discuss everything, that's important to build and sustain our relationship.

(PN, F, 42 yrs.)

Respondents reported patient safety, quality of care, patient-centred care and interprofessional care as the leading concepts in defining a general practice's vision and mission. Several GPs and PNs worked together to reach common targets with their interdisciplinary team facilitating goal-oriented patient care. In these practices, there is a stronger cohesion between team members with different backgrounds due to complementary competence, mutual respect, open communication and equal partnership in the decision-making process, in contrast with the hierarchical structures which continue to exist in other settings.

I think I would be afraid to overlook something. We are all going to have to monitor that everything is going well, so we don't miss anything and patients feel safe.

(GP, F, 54 yrs.)

The nurse should be an equal partner, I think. We should drop the notion that maintaining the hierarchical levels is the solution, as it still is in hospitals. The team as a whole should be the core care-providing unit, and not just the doctor.

(GP, F, 54 yrs.)

Respondents living with chronic illness recognised the importance of all HCPs collaborating closely and promoting and communicating the same core values for the patient's well-being. Too often, however, patients encounter incongruent attitudes of HCPs towards team-based care.

When the nurse first started it didn't go all that smoothly to be honest. But gradually it has improved… the way of thinking in the practice.

(Patient, F, 63 yrs.)

4.2 | Theme 2. Patient-centred care

A patient-centred integrated care was a key element for all respondents in the study. GPs and PNs emphasised the value of patient-centred care in their daily practice, together with core values such as integrity, respect for privacy and diversity.

We try to conserve a close personal contact with our patients so that they wouldn't get the feeling that they are being treated like a number.

(GP, F, 36 yrs.)

Nevertheless, patients living with chronic illness generally experience care as being delivered rather routinely and without consciously considering the major impact of their condition on their lives. They pointed out their need for appreciation and recognition of the key role they play in the entire care process. Besides competence and a professional attitude, HCPs need to offer guidance in coping with loss or change in their daily practice. Affective aspects are also deemed imperative for patients to build trust—for example, investing time to listen and showing genuine concern, empathy, involvement and interest.

Sometimes it lacks the human aspect of care, the connection with people, although the nurse treats me somewhat differently; more like I am a real human being, without a label or a number.

(Patient, M, 71 yrs.)

I need someone that really makes time for me, who isn't preoccupied with anything else, … you know… the feeling of truly being listened to and that we were going to solve my problem together.

(Patient, M, 53 yrs.)

Patients expressed a strong need for the HCP to invest in health advocacy and individualising care, two important aspects that they feel are often lacking due to time restraints, mostly reported in settings with limited levels of interprofessional collaboration.

What is important to me is having someone familiar I can turn to and who will navigate me through the complex health care system, pointing me in the right direction.

(Patient, F, 83 yrs.)

Every human being is different, right? And yet my treatment is not adapted to me as an individual. It's standardized, based on how they see it, not on how I want it to be. Actually, I feel like I don't have a say in anything as a patient.

(Patient, F, 57 yrs.)

The professional relationship of patients with their HCPs is based on trust as well. Trust in the GP or PN facilitates open communication

about confidential matters and creates a solid support base for disease management. The traditional doctor–patient relationship was given much emphasis during the interviews, illustrating its great significance for all three included stakeholder groups. A specific PN–patient relationship could assist in taking down certain barriers people may encounter when they seek care. Patients expressed their need for time to adapt to the new situation by gradually introducing the PN role and encouraged by the already established trust relationship with their GP.

> *I'm kind of an 'intermediary' between the doctor and the patient. It lowers some thresholds, I think. Some patients would rather share something personal with me than with the GP.*
>
> *(PN, F, 33 yrs.)*

> *It is nice if you know the people. It creates a relationship of trust, in fact. Because they know your medical history, your medical conditions… and often your personal situation as well.*
>
> *(Patient, M, 64 yrs.)*

> *Our GP team has been planning the integration of a nurse for quite some time now, so we are used to the idea, but of course it will be new for our patients. So we're going to have to re-educate them on this matter.*
>
> *(GP, M, 41 yrs.)*

> *At first, I was a bit hesitant because all of this was new to me, and I prefer turning to someone I am familiar with. The first time, the doctor did consultations together with the nurse and he introduced us. And that's how she was integrated, gradually. From the beginning, I noticed my doctor was really supportive of her, and I trust my doctor to choose the 'right' person for the job, someone with the same values.*
>
> *(Patient, M, 53 yrs.)*

4.3 | Theme 3. Practice nurse role development

The respondents perceived that the dynamic PN role is continuously developing at different speeds and levels, dependent on contextual factors and the clinical setting in which they were working. This asynchronous transition is driven by explicit needs and expectations of general practices and patients, and an increasing trust-based relationship between the PN and the GP and patients. A changing PHC climate and increasing workload are the main reasons for GPs to consider working together with a PN.

> *Nowadays, patients don't present themselves with only one problem; they often come with several problems they want to see solved. This evolution in health care use puts a lot of pressure on the GP.*
>
> *(GP, M, 38 yrs.)*

> *There are several tasks I can think of that we could delegate to a nurse. In that way, yes, there is a certain need. A nurse in our practice would certainly provide added value, but also ease our workload as GPs.*
>
> *(GP, M, 41 yrs.)*

> *The waiting room is always overcrowded and I always have the feeling that the GP needs to work faster to get all the work done, whereas the nurse takes the time to really listen. And meanwhile the doctor is less bothered by time-consuming trivia and can invest more in people who really need it.*
>
> *(Patient, F, 70 yrs.)*

> *I must admit that my diabetes consultation is rather technical. So yes, there's probably other ways to do that. A nurse would also have more time to address the patient's perception of an illness.*
>
> *(GP, F, 53 yrs.)*

Both GPs and PNs were positive about future opportunities arising with interprofessional development. As the nursing profession is evolving rapidly, physicians may potentially gain more time to focus on their fundamental, medical responsibilities. Respondents in all three stakeholder groups reported diverse PN role responsibilities. The range of nursing competences that were reported during the interviews with the three stakeholder groups could be grouped into five leading categories: administration and logistics, medical technicalities, prevention, chronic disease management and innovation and quality improvement.

> *As physicians, we would prefer to focus more on the patient's medical problems, our core business, during consultation.*
>
> *(GP, F, 53 yrs.)*

> *After working in nursing for 15 years, I wasn't really satisfied with my job anymore. It felt like I was just executing orders all the time. Instead, I wanted to be part of the decision-making in the care process and consult with the doctor. That is why I seized the opportunity to become a PN.*
>
> *(PN, F, 53 yrs.)*

In some settings, the PN role is growing further, whilst getting more integrated in the work structure of the PHC team. Therefore, the PN

should acquire specific competences so they can feel confident about their new role. This competency-based development allows them to further refine proficiency within their own professional domain, framed by legislative frameworks. Respondents described expertise as being able to work autonomously on the one hand and, on the other, being able to correctly recognise their own boundaries and thus consulting other disciplines if needed.

> *I need to be attentive to the extent of my domain of expertise. I am a nurse, not a doctor. So I think it is important to recognize my limits.*
>
> *(PN, F, 24 yrs.)*

> *And the way the nurses work, that's something like… 'professionalism'. Knowledge and skills. You can tell by their self-confidence that they are not doubting every decision. And, of course, that they call in the doctor when necessary!*
>
> *(Patient, M, 71 yrs.)*

Respondents indicated the importance of a high-quality, practically oriented and theoretically substantiated study programme aimed at a reorienting specialisation for nurses with a thorough pre-existent knowledge of basic competences and relevant, previous work experience, combined with context-specific coaching.

> *A one-size-fits-all nurse is not delivered, you can't just drop them in a practice and say: 'do it, make it work'. This mentorship is a responsibility of the GP team.*
>
> *(GP, F, 36 yrs.)*

> *If you do this kind of work, you have to be very independent and not be afraid of taking decisions. It is a big responsibility. I often get to follow refresher trainings to update my skills and knowledge, in order to guarantee our patients the best care.*
>
> *(PN, F, 53°yrs.)*

> *People are afraid to share confidential things with others. In order to do so, they really have to be convinced that those people have the right level of competence for their job.*
>
> *(Patient, F, 51 yrs.)*

4.4 | Theme 4. Interprofessional collaboration

The participants experience the formalisation and operationalisation of the collaboration between GP and PN considerably differently in the various settings. Clearly defined, complementary job roles and responsibilities and transparency thereof enhance professional relationships between all three stakeholder groups. Many practices are still trying to find their way in this transitional stage. In the interviews, the PN role description was oriented towards coordination, organisation and follow-up of low complexity aspects of patients living with chronic illness. The role of the GP was referred to as supervising and being responsible for complex cases. A protocol-based work organisation facilitates formalising these developing professional relationships and incorporating roles and responsibilities into practice. Moreover, it contributes to the transparency between both PHC team members and patients, and to promoting competence, autonomy and job satisfaction.

> *My work is protocol-based. If something occurs that goes beyond my area of responsibility, I consult with the GP first. Yes, both nurse and GPs adhere to the protocol which we agreed upon. Current work agreements are reassessed during each interprofessional consultation and both parties give the pros and cons and then we change it if expedient. Always in consultation with each other.*
>
> *(PN, F, 40 yrs.)*

Interprofessional care in general practice entails shared decision-making. Reaching team consensus by dialoguing and discussing issues with all team members on an equal level and from their own perspective is highly valued by the three stakeholder groups.

> *We always take decisions in consultation with one another.*
>
> *(GP, F, 54 yrs.)*

> *I feel that we are all on the same level, doctors and nurses, each of us contemplating from our own perspective. So we complement each other.*
>
> *(PN, M, 38 yrs.)*

According to all included stakeholder groups, interprofessional teamwork translates into more continuity and quality of care due to the centralisation of HCPs. Effective, interprofessional communication on medical data exchange and coordinating and reporting care processes was thought to be crucial in strengthening this new collaboration between GP and PN.

> *They have their weekly meetings to discuss their patients. This way, when my doctor is on holiday, the others are also informed. And also about things that have nothing to do with medical stuff, for example a personal story I was telling. Then they also ask me: 'Tell me, how did that end?' And that's important to me. I never have to tell the same thing twice and they really work together for me, the patient.*
>
> *(Patient, M, 71 yrs.)*

Patients appear to be receptive to the development of a close collaboration between their GP and PN or other disciplines in the general practice. They regarded this transition as beneficial to their experiences in PHC and recognised several practical advantages: a larger amount of time spent with the HCP affects their perception of quality of care; greater availability is perceived as better access to care.

> *In primary health care, health care providers often work very independently, whereas patients could really benefit more from them working together.*
>
> *(Patient, F, 35 yrs.)*

HCPs seem to come across several organisational challenges in sustainably implementing this transition in their existing practice structure. GPs expressed their concerns about the barriers of the conventional "fee-for-service" financial system, whereas a capitation payment system creates more financial resilience, although the GP population seems rather reluctant to switch. Respondents pointed out the urgent need for revised financial and legislative frameworks that support this transition in the general practice. The investment of time and resources required for the integration of nursing competences into practice was mentioned as another barrier. GPs and PNs indicated the need for practical guidance during this transition that is tailored to their setting, for example by sharing good practices within a GP community and coaching from expert educational institutions.

> *The financial obstacle is substantial. If we were to shift patient consultations to a nurse, the government should at least offer some kind of compensation. We lose income because we have to pay a nurse, and a nurse may not charge anything herself, due to current legislative structures. So that's actually a double loss.*
>
> *(GP, M, 41 yrs.)*

> *But they should create the right conditions for that nurse, thus allowing her to work independently. Because currently she can only execute the doctor's 'orders'. She is restricted, that is the main problem. They will have to change the basis first.*
>
> *(Patient, M, 49 yrs.)*

> *I was thrown in at the deep end, although the three GPs supported me. They told me a little about how the GP practice worked, but there was little structure and organization at the time. And so I just … started. Step by step, and in collaboration with the doctors, we got everything up and running.*
>
> *(PN, F, 42 yrs.)*

> *Since we lack experience in working with a nurse in our practice, the practical organization of implementing something like this seems challenging. How about the training and coaching of the nurse? How do we inform our patients? You know… the practical side, the organization within our practice, how are we going to tackle that?*
>
> *(GP, F, 36 yrs.)*

5 | DISCUSSION

This study provides salient insight into the perspectives of GPs, PNs and patients living with chronic illnesses, who are substantially affected by the context of Belgian PHC transitioning towards an integration of nurses in general practice.

The importance of a clear mission and vision statement about interprofessional teamwork and patient-centred care in general practice was voiced by both HCPs and patients. Our findings on the importance of a shared understanding of the concept of care, which facilitates team work and affects patients' experience with PHC, are echoed by previous research. Shared mental models can help describe, explain and predict the behaviour of a team, allowing members to coordinate their actions and adapt their behaviour to common expectations (Jonker, van Riemsdijk, & Vermeulen, 2011). They are accepted as a meaningful driving force for ongoing systematic practice development and provides orientation for teams (Martin, McCormack, Fitzsimons, & Spirig, 2014), especially if endorsed by the individual values and beliefs of team members (Clark, 2008). Moreover, different actors' common interest in collaborating, improving quality of care and developing new professional fields is known to facilitate interprofessional collaboration (Supper et al., 2015). Despite valued advantages, however, nurses and physicians might have differing views on the essentials of collaboration and autonomous PN practice (Schadewaldt, McInnes, Hiller, & Gardner, 2013), and team work remains inadequately translated into practice (Wen & Schulman, 2014).

As this study demonstrates, both the context of PHC and patients' needs lay the basis for actively moving towards the integration of nursing competences in general practice. In congruence with international data, the nurse's role in this setting has diversified in response to a shortage of clinicians in general practice and an increasing burden of chronic diseases and multimorbidity (McInnes, Peters, Bonney, & Halcomb, 2015). This transition fits within a patient-centred model of PHC and leads to health benefits in patients living with chronic illness (Matthys et al., 2009), provided that PNs expand their role in chronic disease management (Young, Eley, Patterson, & Turner, 2016). Collaborative care leads to a shift from subordination to complementarity and from cost containment to meeting patients' previously unmet needs within a broader concept of health (Supper et al., 2015).

Despite congruent views on several benefits of including a PN in a primary care practice, nurses, physicians and patients in our study expressed concerns around responsibility, trust and accountability, hampering interprofessional teamwork. The considerable heterogeneity of the scope of nursing practice and unclear responsibilities in collaboration with physicians, and subsequent elaboration of nursing roles, can be attributed to the ad hoc development which has

occurred in many countries because of the urgency for differentiating and expanding tasks concerning complex care (Dini et al., 2012; Matthys et al., 2017). Research shows that poorly defined roles are a potential source of conflict, may reduce effectiveness of care and cause lack of confidence in, and resistance to, the integration of new roles (Brault et al., 2014; Chan et al., 2010). Conversely, clear definitions of each team-member's role may facilitate optimally shared responsibility for patient care within primary care teams (Freund et al., 2015). The extent to which the legitimacy of practice nursing is established and maintained in general practice may explain the diver ways the PN-GP collaboration was described during the interviews: instrumental—meaning that the PN performs delegated tasks based on the GP's orders—or rather integrated, including the PNs' autonomous decision-making competence based on structured agreements.

This study has identified medical liability for nursing practice and the lack of formal governmental support and long-term secure funding for GPs to employ a nurse, as barriers to interprofessional GP-PN care in Belgian PHC.

A defined scope of practice and suitable legislation can facilitate interprofessional collaboration (Supper et al., 2015). Enabling nurses to work to the full extent of their scope is expected to mitigate future workforce shortages and improve patient access to care (Walker, Clendon, & Nelson, 2015). However, in Belgium, the level of clinical practice is restricted to perform only a limited set of advanced clinical activities, under physician supervision, thus limiting the PN's ability to strengthen primary health care (Freund et al., 2015). Although introducing protocol-based care may facilitate instrumental PN-GP collaboration in this context (Freund et al., 2015), it also may diminish opportunities for the shift from task delegation to integrated team care with shared responsibilities (Jakimowicz, Williams, & Stankiewicz, 2017).

Fee-for-service schemes, which are widely used in Belgian general practices, hamper role expansion of nurses as only services delivered by physicians are reimbursed, whereas capitation-based reimbursement schemes are supportive of role expansion of PNs (Freund et al., 2015). Policy initiatives have led to a significant increase in the number of practice nurses working in a general practice in other countries (Afzali et al., 2014). Moreover, when governmental support is linked to a number of requirements that create the conditions to work within their area of clinical expertise, it can support further evolvement of the PN discipline (Matthys et al., 2019).

A timely and thorough planning of the dynamic and complex integration process of the nurse in general practice is indispensable to inform and prepare PHC teams (Contandriopoulos et al., 2015). Such initiatives are expected to reinforce confidence and trust of all included stakeholder groups in the new PN role, besides the gradual adaptation this transition requires to overcome organisational constraints (Mahomed, St John, & Patterson, 2012). Broadening collaboration towards an interprofessional approach creates the need for training and evaluation at a team level (Supper et al., 2015). The development of national professional practice standards for PNs working in Belgian general practice, as proposed by Halcomb, Stephens, Bryce, Foley, & Ashley (2017), might support the ongoing transition in PHC. Such standards could contribute to defining the role and scope of the PN and transparency thereof for both HCP and patient and, in addition, guide curriculum development, the practical implementation of nursing skills in specific settings and measurement of performance; all of which are actions that have been put forth as much needed during our interviews. Specialised interprofessional clinical education for PHC may consolidate further PN role expansion (Sroczynski & Dunphy, 2012). Responding to the importance of education of nurses, a postgraduate education programme was delivered in Antwerp in 2016. A collaboration between the university and university colleges of the province was set, supported by a strong involvement of both GPs and nurses in the development and follow-up of the programme, as learning process to integrate nurse competencies in general practice. During their training programme, student PNs do internships in GP practices, which increases sustainability in settings that do not have experience with interprofessional collaboration. Moreover, the programme is guided by a research initiative to study the effect on patients as well as GPs and nurses in order to provide evidence for practices and policy-making.

We recognise that some limitations have to be considered when interpreting our findings. First, the study was performed in a specific PHC setting so transferability to other settings is not evident. However, we described the specific characteristics of Belgian PHC thoroughly, to enable a clear understanding of the context and the potential use of the results in other contexts. Therefore, further research might be needed to confirm the identified themes in other settings. Second, because of our focus on patients living with chronic illness, perceptions about the potential PN role in preventive initiatives and care for acute minor illnesses, as proposed in previous research (Fabrellas et al., 2013), are still open to further exploration. Next, the recruitment strategy of patient respondents was organised with involvement of their HCP in general practice, which could have led to selection bias. Finally, we acknowledge the difficulties in triangulating the results of four primary studies that were conducted independently and without preceding methodological proposal to reinforce consistency. Nevertheless, minor heterogeneity in primary data collection and analysis of incorporated studies was diluted, due to the similarly narrow range of epistemological assumptions and qualitative methodologies all four primary studies were informed by. Thematic synthesis contributed to a fresh interpretation of the researched phenomenon, rather than merely describing and summarising primary data.

6 | CONCLUSION

This study used a qualitative design that incorporated semi-structured interviews to better understand the PN's, GP's and patient's perceptions and experiences about integration of nurses in Belgian general practice. Interprofessional collaboration and accurate integration of clinical and organisational nursing skills and knowledge are needed in a patient-centred model in general practice. However, many contextual and organisational barriers remain, hindering

further role development and long-term sustainability, whereas clear vision and mission and trust-based professional relationships facilitate the transition.

7 | RELEVANCE TO CLINICAL PRACTICE

Our study highlights contextual opportunities and challenges to consider in implementing the interprofessional model of care that has been demonstrated to improve health outcomes. This transition in international PHC contexts involves a critical learning process for researchers, policymakers, HCPs and a population with a potential need for care. Current and future challenges in PHC require a more integrated interprofessional collaboration with shared responsibilities instead of task delegation between GPs and PNs. Shifting from "task delegation" to "team care" is a global trend, yet limited by traditional role concepts, legal frameworks and reimbursement schemes (Freund et al., 2015; Matthys et al., 2017). We strongly recommend that future research is dedicated to systematically document, plan, monitor and assess further transition of PHC in Belgium and other contexts, which will provide the systematic guidance general practices are urging for and lay the groundwork for sustainable change that is much needed. Moreover, future research would be an investment in building solid arguments for policymakers to re-evaluate legislative and financial frameworks, currently defined by hierarchically structured healthcare professions and lacking resilience to this urgent transition.

CONFLICTS OF INTEREST

All authors declare that they have no competing interests.

AUTHOR CONTRIBUTIONS

Vercauteren, B.; Joye, S.; Tsitagianni, V. contributed to data collection and primary data analysis.

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SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section.

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