

The Patient Teacher in General Practice Training

Marie Aires, Rémi Gagnayre, Olivia Gross, Cam-Anh Khau, Sophie Haghghi,
Alain Mercier, Yannick Ruelle, Claire Marchand

► **To cite this version:**

Marie Aires, Rémi Gagnayre, Olivia Gross, Cam-Anh Khau, Sophie Haghghi, et al.. The Patient Teacher in General Practice Training: Perspectives of Residents. *Journal of Patient Experience*, 2018, <http://journals.sagepub.com/doi/full/10.1177/2374373518803630> . 10.1177/2374373518803630 . hal-01886676

HAL Id: hal-01886676

<https://hal-univ-paris13.archives-ouvertes.fr/hal-01886676>

Submitted on 3 Oct 2018

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers. L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



The Patient Teacher in General Practice Training: Perspectives of Residents

Journal of Patient Experience

1-9

© The Author(s) 2018


Article reuse guidelines:

sagepub.com/journals-permissions

DOI: 10.1177/2374373518803630

journals.sagepub.com/home/jpx



Marie José Aires, RN, MSc¹, Rémi Gagnayre, MD, PhD¹,
Olivia Gross, PhD¹, Cam-Anh Khau, MD, PhD²,
Sophie Haghighi, MD², Alain Mercier, MD, PhD, PU²,
Yannick Ruelle, MD² , and Claire Marchand, RN, PhD¹ 

Abstract

Background: Patient teachers were involved in training general practice residents (GPRs) to strengthen the patient-centered approach. They teach a course on health democracy by themselves and teach in tandem with a physician teacher during reflective practice-based classes (named GEPRIs). We present the GPRs' representations of patient teacher characteristics and capacities and their perception of how useful patient teachers are to their professional development. **Methods:** We administered a questionnaire based on a preliminary qualitative study to 124 GPRs. It explored (a) changes in the GPRs' representations about patient teacher characteristics and capacities with regard to teaching over the first year of the experiment; (b) GPRs' perception of patient teacher utility to their training and their contribution to developing patient perspective-related competencies. **Results:** The response rate was 89.5% (111/124). The majority of GPRs agreed with 17 (before) and 21 (after) of the 23 patient teacher characteristics and with 17 (before) and 19 (after) of the 20 capacities. The agreement rate increased, overall, after patient teacher participation. The GPRs found patient teacher useful to their training in 9 of 11 topics (agreement rate 65%-92%). They felt they had developed the 14 patient knowledge-related competencies (agreement rate 62%-93%), and 52% to 75% of the GPRs rated the patient teachers' contribution to those competencies "high or very high," depending on the competency. **Conclusion:** This study demonstrates the specific contribution of patient teachers to university-level medical training in France. The GPRs recognized that patient teachers helped them develop competencies by providing patient-specific content.

Keywords

patient engagement, medical education, patient teacher, health democracy, general practice resident

Introduction

Background

Patient involvement in medical training has been on the rise since the 1970s (1), driven by the push for greater social responsibility on the part of medical schools, as promoted by the World Health Organization (2). More recently, a number of reports have stressed the importance of patients' participation as members of the teaching team for education, evaluation, and research on this educational innovation (3,4). Several reviews and syntheses of the literature (1,5-9) have highlighted the different forms and levels of patient involvement in the health system. In the context of teaching, they also studied the benefits perceived by students (improvement in technical skill, communication, collaborative skills, etc), by teachers and professionals (recognition of the patient perspective), and by patients

(raised self-esteem and empowerment) (1,8). In particular, it was noted that patients could be considered true colleagues in medical education as long as they are supported, trained, and paid. Towle et al stressed in 2010 (1) the importance of supporting coordinated programs involving patients as authentic institutional partners for both teaching and curriculum

¹ Health Education and Practices Laboratory (LEPS EA3412), University Paris 13, Sorbonne Paris Cité, Bobigny, France

² Department of General Practice, University Paris 13, Sorbonne Paris Cité, Bobigny, France

Corresponding Author:

Claire Marchand, Laboratoire Educations et Pratiques de Santé LEPS EA 3412, UFR SMBH, Université Paris 13 Sorbonne Paris Cité, 74 rue Marcel Cachin, Bobigny, France.

Email: claire.marchand@univ-paris13.fr



assessment and development. Although experiences have been implemented and evaluated in various countries (mainly in the United States and United Kingdom) (8), the prolonged involvement of patients at an institutional level in the training of French general practitioners is very recent and its acceptability by the residents is questioned.

In France, health democracy—introduced by Law No. 2002-303, adopted March 4, 2002, regarding the rights of sick persons and the quality of the health-care system—facilitated and encouraged more meaningful patient involvement in the health-care system. As a result, users and patient organizations were gradually incorporated at all levels of the health-care system, based on their experience (10). This was seen as a driver of health-care system quality (11). It was in this context that a General Practice Department at a medical faculty of a French university launched a training program in 2016 with patients as teachers (12).

Presentation of the French General Practice Resident Training Program

After their first 6 years of study, medical students pursue a specialist degree, called a *diplôme d'études spécialisées*. Teaching takes the form of classroom instruction and reflective practice groups (named GEPRI) aimed at developing critical thinking skills, in accordance with cognitivist and constructivist learning theories (13). During a GEPRI, 3 general practice residents (GPRs) present and analyze clinical situations they have encountered during their residency in a small group setting. With the aid of the instructors, the group analyzes the clinical, psychological, and social aspects of those situations. After the GEPRI, the 3 residents write what is called a *Récit de Situation Complexe Authentique* using the group analysis and add a literature review. This includes a description and analysis of the situation, an analysis of the decisions made, a definition of the problems, the responses to those problems, and then a recontextualization via a critique of the decisions made and the construction of an optimal strategy. At the end of the GEPRI, the group chooses two of the problems that emerged in the course of the discussion, and 2 residents give an oral presentation on those problems at the next session. By the end of the 3-year program, each GPR will have participated in 21 GEPRI.

Patient teachers were introduced as part of the general practice training program. That innovative program had its foundations in the drive for social responsibility in primary care (14) and in the reform of GPR's training, which made the "patient-centered approach" central to the competencies needed by future general practitioners (15). Programs based on that view have been shown to improve students' ability to apply the patient-centered approach (16).

To foster acceptance and implementation of its program, the General Practice Department relied on existing recommendations (1,3). Patient coordinators are members of the teaching committee. They are charged with recruiting patients as teachers, using a grid based on criteria set out in the literature (7). The patients recruited are volunteers,

belong to a patient organization, and have good health knowledge and experiential knowledge (17); they have a clear idea about what they want to convey to the GPRs; and have good will toward GPRs (18). That choice of patient profile was based on the assumption that such patients would have a quality-of-care-oriented perspective and the same critical reading of the situations being analyzed.

The 20 patient teachers recruited have the status of casual teachers. They are paid. They help design the lessons, teach the first class on health democracy on their own, and teach in tandem with a physician teacher in 80% of the GPRs' classes. They bring a stronger patient perspective to residents' analyses and practices by responding to what the residents say they know about patient expectations and by offering health resources from organizational settings with which the residents are not familiar (18). Lastly, patient teachers participate in the educational assessment of the GPRs.

Program development is supported by a steering committee made up of patient teachers, physician teachers, and researchers, in accordance with the design-based research approach (19). Two studies accompanied the program implementation. They first analyzed the content of patient teaching—identified based on observation—as it related to the competencies expected of general practitioners (18). As both the patients and physician teachers accepted the ethical and political aspects of patient involvement in medical teaching (20), the second study examined the residents' opinions about patient teacher participation. This article presented the result of this second study.

Methods

Sample

One hundred twenty-four GPRs from 2 (second- and third-year) cohorts at University Paris 13 were asked their opinion about patient teacher involvement in their training.

Materials

As the literature offered no questionnaires that could be used to document residents' representations regarding patient teacher involvement, the first phase consisted of a qualitative study among the stakeholders prior to participation in the program (21). There were semistructured interviews with 7 patient teachers and 8 physician teachers and focus groups with 9 GPRs at the beginning of the program. This provided data on the different stakeholders' representations regarding the characteristics and capacities they felt that patient teachers should possess, as well as on general practitioner's competencies to which patient teachers might usefully contribute. Those results were used to construct a questionnaire. Because—for organizational reasons—patient teacher involvement began early, the questionnaire was not administered until the end of the first year of the experiment. Despite the well-known limitations of this type of survey, we wanted to document how the GPRs' representations regarding

Table 1. Change in the Residents' Representations on Patient Teacher's Characteristics After Their Involvement.^{a,b}

Regarding Patient Teacher's Characteristics	Agree Before, n (%)	Agree After, n (%)	Difference, n (%)
The PT is knowledgeable about health-care legislation	52 (47)	89 (80)	37 (33)
The PT belongs to the organizational network	81 (73)	105 (95)	24 (22)
The PT has complete legitimacy in this training to train general practice residents	53 (48)	73 (66)	20 (18)
The patient is a salaried association employee	36 (32)	55 (50)	19 (17)
The PT is a patient activist	71 (64)	89 (80)	18 (16)
The patient has knowledge about health-care resources that could be useful to me	73 (66)	89 (80)	16 (14)
The PT has "scientific" knowledge about his illness	66 (59)	82 (74)	16 (14)
The PT is a partner in care	76 (68)	89 (80)	13 (12)
The PT has training in teaching	41 (37)	54 (49)	13 (12)
The patient has knowledge about the health-care system	85 (77)	98 (88)	13 (12)
The PT is an expert in his illness	75 (68)	84 (76)	9 (8)
The PT participates in accordance with the same educational values as the physician educators	42 (38)	50 (45)	8 (7)
The PT is a patient who has identified dysfunction in the management of chronic illnesses	75 (68)	82 (74)	7 (6)
The patient is user representative	73 (66)	81 (73)	8 (7)
The PT has knowledge related to his experience of his illness	103 (93)	109 (98)	6 (5)
The PT is a patient motivated to teach	84 (76)	90 (81)	6 (5)
The PT is a patient motivated to increase his own knowledge	84 (76)	89 (80)	5 (5)
The PT wants to improve the quality of diagnostic care	53 (48)	58 (52)	5 (5)
The PT wants to improve the quality of therapeutic care	86 (77)	88 (79)	2 (2)
The PT is a patient motivated to discover the teaching of medical students	86 (77)	87 (78)	1 (1)
The PT has a chronic illness	92 (83)	93 (84)	1 (1)
The PT wants to improve the quality of the caregiver-patient relationship	101 (91)	102 (92)	1 (1)
The PT wants to improve the quality of preventive care	83 (75)	83 (75)	0 (0)

Abbreviation: PT, patient teacher.

^aN = 111.

^bAgreement includes both "agree" and "strongly agree" responses.

required patient teacher characteristics and capacities changed from the beginning to the end of the year-long experiment on a single questionnaire.

The questionnaire had 3 main sections, plus questions to identify the population:

1. The first part asked for the GPRs' representations regarding 23 characteristics (Table 1) and 20 capacities (Table 2), before, and then after, being taught by a patient/physician pair.
2. The second part asked their perception of patient teacher utility with regard to 11 topics (Table 3).
3. The third part evaluated their sense of competence concerning 14 patient perspective-related competencies and the degree to which patient teachers helped them develop those competencies (Table 4).
4. Identification questions: year of training and the number of reflective practice groups (GEPRI) participated in with a patient teacher.

All of the assertions were rated using a 4-point Likert-type scale: strongly disagree, disagree, agree, and strongly agree. The degree of patient teacher contribution to the acquisition of competencies was evaluated using another 4-point scale: none, low, high, and very high. At the end of each section, an open question allowed respondents to add comments.

Before being administered, the questionnaire was tested on 5 health-care professional trainers. There were changes in both the presentation of the questionnaire and the formulation of certain assertions. The finalized questionnaire was then validated by the steering committee.

The questionnaire was administered electronically (Lime-Survey) to all of the residents from January 15, 2017 to February 12, 2017. Three reminders were sent. Participation was anonymous and voluntary.

Analysis

We used descriptive statistics to analyze changes in representations regarding patient teacher characteristics and capacities « before and after patient teacher involvement ». The agreement and disagreement rates were calculated considering the percentage of respondents for each assertion. At the implementation stage of our experience, it seemed important to us to better discriminate opinions in agreement or disagreement with the proposals made. In that way, the 4 levels of agreement or disagreement on the Likert scales were reduced to 2: agree ("agree" and "strongly agree") and disagree ("disagree" and "strongly disagree"). The data were compared as a function of the residents' year of study and the number of reflective practice learning groups they had participated in, to verify

Table 2. Change in the Residents' Representations on Patient Teacher's Capacities After Their Involvement.^{a,b}

Regarding Patient Teacher's Capacities	Agree Before, n (%)	Agree After, n (%)	Difference, n (%)
He is capable of explaining health democracy issues	60 (54)	80 (72)	20 (18)
He is capable of conveying scientific knowledge about his illness	48 (43)	64 (58)	16 (14)
He is capable of being objective about his own illness	63 (57)	78 (70)	15 (14)
He is capable of participating in the assessment (comarking the written work from reflective practice groups) of residents in the general practice training program	43 (39)	57 (51)	14 (13)
He is capable of cofacilitating a reflective practice group with a physician educator	75 (68)	87 (78)	12 (11)
He is capable of conveying health-care ethics-related knowledge	85 (77)	94 (85)	9 (8)
He is capable of discretion (professional secrecy)	88 (79)	95 (86)	7 (6)
He is capable of participating in solving problems related to the situations presented	74 (67)	81 (73)	7 (6)
Aside from cofacilitating reflective practices groups, he is capable of leading the general practice training course by himself	37 (33)	43 (39)	6 (5)
He is capable of deciding the right time to intervene in the discussion during reflective practice groups	88 (79)	93 (84)	5 (5)
He is capable of conveying patient rights-related knowledge	95 (86)	101 (91)	6 (5)
He is capable of reflecting the community of chronically ill patients	79 (71)	82 (74)	3 (3)
He is capable of adapting his discourse to the residents	73 (66)	76 (68)	3 (3)
He is capable of drawing connections between the clinical situations presented and his knowledge and experience	91 (82)	94 (85)	3 (3)
He is capable of understanding medical language	75 (68)	77 (69)	2 (2)
He is capable of staying in his role as patient when conveying his personal point of view	85 (77)	87 (78)	2 (2)
He is capable of conveying knowledge related to the experience of his illness	103 (93)	103 (93)	0 (0)
He is capable of controlling his own emotions	84 (76)	84 (76)	0 (0)
He is capable of listening and showing empathy	95 (86)	95 (86)	0 (0)
He is capable of adapting his intervention to the behavior and attitudes of the general practice residents	82 (74)	79 (71)	-3 (-3)

^aN = 111.^bAgreement includes both "agree" and "strongly agree" responses.**Table 3.** General Practice Residents' Perceptions of Patient Teacher Utility in the Training Program.^{a,b}

Patient Teacher's Involvement Is Useful for:	Agree, n (%)
Better understanding the experience of the illness	102 (92)
Better knowledge of the patient organization setting	101 (91)
Providing knowledge about users' rights	98 (88)
Identifying psychosocial problems related to managing patients with chronic illness	90 (81)
Better understanding health-care ethics	89 (80)
Overall, I would say that the patient teacher's involvement is useful in the general practice training	86 (77)
Better understanding the reasons for treatment noncompliance	85 (77)
Changing my views about the patient's role in the health-care system	77 (69)
Better understanding health democracy issues	72 (65)
Acquiring new medical skills	46 (41)
Better understanding the clinical problems presented in the reflective practice groups	41 (37)

^aN = 111.^bAgreement includes both "agree" and "strongly agree" responses.

whether these variables could influence the results obtained. Fisher exact test was used for these comparisons, with a 0.05 significance threshold.

The open comments underwent an inductive thematic analysis in relation to the study objectives. A researcher codified each comment. Then the comments were classified into 3 main themes, including subthemes: (1) Positive opinions: on the capacities of patient teachers, their specific contributions, their usefulness in the development of certain skills; (2) Negative opinions: the lack of relevance of the patient teacher's intervention during GEPRI, the fear of being judged by patient teachers, the lack of representativeness of patients, differences in attitude according to patient teachers; (3) Suggestions for training.

Results

The questionnaire response rate was 89.5% (111/124); 51% (57/111) of the respondents were second-year residents and 49% (54/111) were third-year residents. All had participated in GEPRI with a patient teacher. The majority (83/111, 75%) had participated in either 3 (31/111) or 4 (52/111) such groups.

Change in the Residents' Representations on Patient Teacher Characteristics

The majority of the GPRs agreed with 17 of the 23 proposed characteristics before and after patient teacher

Table 4. General Practice Residents' Sense of Competence Concerning the Acquisition of Patient Perspective–Related Competencies and Patient Teacher's Contribution to Developing Those Competencies.^{a,b}

Regarding Patient Perspective-Related Competencies	As a Result of the General Practice Instruction, I Feel Capable of: Agree, n (%)	I Would Rate the Patient Teacher's Contribution to the Development of This Competency: Large or Very Large, n (%)
Taking the patient's point of view into account	103 (93)	83 (75)
Understanding the patient care pathway	101 (91)	81 (73)
Understanding what the patient feels	100 (90)	80 (72)
Taking the patient's rights into account	91 (82)	78 (70)
Including patient organizations in the coordination of care	69 (62)	76 (68)
Taking the patient's knowledge and experience into account during my consultations	98 (88)	71 (64)
Building a therapeutic relationship with the patient	101 (91)	69 (62)
Informing and advising the patient	98 (88)	67 (60)
Including an ethical dimension in patient care	98 (88)	66 (59)
Conducting a shared medical decision-making process with the patient	97 (87)	62 (56)
Helping the patient develop skills for managing his illness	88 (79)	62 (56)
Communicating appropriately with the patient	99 (89)	59 (53)
Treating a patient as a whole	99 (89)	58 (52)
Taking the entourage (peer helpers) into account when making medical decisions	90 (81)	52 (47)

^aN = 111.

^bAgreement corresponds to both "agree" and "strongly agree" responses.

involvement; the rate of agreement ranged from 59% to 98% (Table 1).

The percentage agreement increased (by 1%-33%) after patient teacher involvement for 22 of the characteristics. The residents' opinion was unchanged for only 1 characteristic, at 75% agreement.

For 6 characteristics, the percentage agreement before patient teacher involvement was less than 50%. For 4 of these, opinions changed after patient teacher involvement to at least 50% agreement, increasing by 5% to 33% agreement, depending on the characteristic. For the other 2 characteristics, the agreement rate remained low, at less than 50%. These were "The patient teacher has training in teaching" and "The patient teacher participates in accordance with the same educational values as the physician educators."

Change in the Residents' Representations on Patient Teacher Capacities

The majority of the residents agreed with 17 of the 20 proposed capacities before and after patient teacher involvement; the rate of agreement ranged from 54% to 93% (Table 2).

Before patient teacher involvement, 3 patient teacher capacities received less than 50% agreement: the ability to convey scientific knowledge about his illness (43%), to participate in assessing residents (39%), and to teach on their own (33%). Agreement on 2 of these capacities increased to over 50% after patient teacher involvement (by 13% and 14%). The majority of GPRs continued to disagree that the patient teacher was capable of teaching on his own in the

general practice training program (33% agreement before and 39% after).

Agreement with 16 of 20 capacities increased after patient teacher participation (by 2%-18%). The GPRs' opinion was unchanged after patient teacher participation for 3 capacities. One capacity received slightly less agreement "after" (74% before vs 71% after): the patient teacher's ability to adapt his participation to the residents' behavior and attitudes.

Perception of Patient Teacher Utility in the Residents' Training Program

The GPRs found the patient teachers useful in the training program for 9 of the 11 proposed topics (65%-92% agreement). They were seen as less useful for 2 topics: the patient teacher's usefulness for better understanding the clinical problems presented in the GEPRI (37% agreement) and for acquiring new medical skills (41% agreement; Table 3).

Competency Acquisition and Patient Teacher Contribution to Competency Development

The majority of GPRs felt they had developed the 14 patient perspective–related competencies (62%-93%). For 13 of the 14 competencies, they felt that the patient teacher's contribution to developing those competencies was either high or very high (52%-75%; Table 4).

For the "taking the entourage (peer helpers) into account when making medical decisions" competency, a slight majority (53%) felt that patient teacher contribution was low.

Comparison of Responses by Respondent Profile

For some patient teacher characteristics and capacities, the agreement rate before patient teacher involvement was higher among second-year residents than among third-year residents. Second-year residents were more likely to consider patient teachers experts in their illness ($P = .04$), capable of staying in their role as patients when conveying their personal point of view ($P = .01$), and capable of adapting their contribution to the residents' behavior and attitudes ($P = .05$). After patient teacher involvement, the second-year residents were more likely to find them useful for better understanding the reasons for treatment noncompliance ($P = .02$) and more likely to feel that they helped them develop the "conducting a shared decision-making process with the patient" competency ($P = .01$). The third-year residents, on the other hand, were more likely to feel capable of helping patients develop the competencies they need to manage their illness ($P = .02$).

Open Comments

Fifty (46.8%) of 111 GPRs offered 115 comments (between 1 and 3 comments per resident). A total of 101 usable comments were analyzed.

Positive Opinions

Fifty-four percent of the comments (offered by 24/50 GPRs) reflected a positive view of patient teachers by GPRs and the usefulness of incorporating the "patient perspective" into general practice training. They stressed the qualities of the patient teachers ("committed," "involved," "qualified," "very receptive", etc). They welcomed the patients' perspective because it helped give a broader, more complete view of the experience of the illness and what patients feel ("not just the emotional experience, but also the material, financial, and professional circumstances"). The residents felt that patient teacher involvement would improve the care relationship, thanks in part to a better understanding of the patient ("very useful for understanding our patients with chronic illnesses"), not just by understanding what they feel but also by becoming more conscious of their own attitudes ("better grasp the attitudes that we can adopt," "helps us know the impact of what is said and done by doctors," and "makes us more humble in how we treat patients"). Some comments mentioned specific supplementary patient teacher contributions ("nonscientific information... the entire social, organizational, health economics side," "information on the health-care system, the patient care pathway, their rights, legislation," and "resources that aren't taught in our general practice curriculum").

Negative Opinions

Fourteen residents expressed varying degrees of reticence about patient teacher involvement in training GPRs (32%

of the comments), ranging from complete rejection to the expression of a variety of limitations. The latter had to do with the status of patient, which seemed to them incompatible with teaching medicine ("because I don't think people who don't practice medicine can understand the problems we encounter"). Being an expert in only one illness was seen as a limitation ("it's hard for them to have knowledge about other illnesses"). The presence of patient teachers in reflective practice groups made some residents feel judged, attacked, or less secure ("not a place where we have to explain ourselves or defend ourselves over what went wrong with patients, but rather to find ways to improve our doctor-patient relationships without feeling guilty"). Lastly, some complained about certain patient teacher attitudes ("too activist, demanding, and aggressive in their comments").

Suggestions for Training

Twelve residents offered suggestions. Some felt that it was not always useful to have a patient teacher at all of the GEPRI. They suggested practical workshops with patient teachers for working on communication skills (eg, "their presence should probably be used more for trying out our communication skills and our ability to create a therapeutic relationship"). Three residents mentioned the possibility of having other health-care professionals participate as well.

Discussion

Even assuming that the residents were able to remember their initial representations regarding patient teacher characteristics and capacities, this discussion places the primary emphasis on the results obtained at the end of the year-long experiment.

This study shows that GPRs have a positive view of patient teacher involvement in their general practice training. They identify the patient teachers' characteristics and capacities and the latter's usefulness in developing certain general practice competencies, helping the GPRs incorporate the patient perspective into their practice. These results confirm and add to those in the literature on patient participation in medical training (1,7). This study also shows that beyond patient teachers' personal narratives (22) and their role in teaching clinical and communications skills (1), patient teachers can be involved in learning processes such as those employed in reflective practice groups. An increasing number of health-care training curricula include reflective practice training, which significantly enhances students' learning and helps them better incorporate theory into their practice (23). The 2009 literature review reported a single qualitative study in which mental health patients participated in nursing education based on reflective practice classroom (8). In our study, patient teachers make a real contribution to residents' reflective analysis, especially since such learning is seen as a positive experience and occurs in a supportive learning environment (24).

The residents recognize the special status of patient teachers (someone with a chronic condition, belonging to an organizational network, activist, user representative, etc), their special knowledge (of the laws and the health-care system, scientific and experiential knowledge of the disease, etc), and their motivation for teaching and improving both preventive and curative care. These characteristics are consistent with those used to recruit patient teachers for this project, confirming their validity inasmuch as they enable patient teachers to create cognitive conflict, which facilitates incorporation of the patient perspective by the GPRs (13). Hence, this study underlines the specific contributions of patient teachers recruited using clearly defined criteria in the training of GPRs—contributions that physician teachers would be unlikely to provide on their own or would approach differently (25).

A comparison between the second- and third-year residents' responses indicates better acceptance of patient teachers by the second-year residents on some items. One possible hypothesis is that second-year residents still consider themselves students, susceptible to being thrown off balance, unlike third-year residents who—soon to be in practice—want to feel sure about what should be done. Note, however, that unlike the third-year residents, the second-year residents experienced patient teacher involvement right from the start of their program. This might indicate better acceptance when patient teachers are introduced early in the residents' training—something worth verifying in a study.

There was some reticence about patient involvement in reflective practice groups. In contrast to other studies in which medical students felt less intimidated by the patients than by a physician instructor (26,27), a few residents felt that patient participation in the reflective practice groups was threatening to their learning. This is explained, in part, by the type of involvement that practice analysis demands and shows that the framework and rules for participation must be clearly defined for everyone at the start of each session. Some authors have mentioned things likely to have a negative impact on reflective practice, such as an intellectually or emotionally nonconductive environment or one in which opinions cannot be expressed freely (23).

The GPRs questioned the idea of patient teacher involvement in activities other than cofacilitating reflective practice groups; the majority (61%) did not consider it desirable to have patient teachers teaching on their own in the general practice curriculum, and nearly half (49%) felt that patient teachers should not participate in assessing GPRs. Nevertheless, the program does intend to have patient teachers taking part in the educational assessment of residents. It will therefore be important, in future studies, to look at the specific patient teacher contributions to such assessments and to evaluate their perceived utility among the GPRs (28,29). Unlike in other countries, patient involvement in medical training is relatively new in France, which might explain the reticence observed. In addition, some of the open comments suggested that patient teachers be involved in other forms of

practical teaching—for example, in helping them improve their communication or clinical skills—or even with other health professionals, as described in the literature (1,30,31).

Although a group created specifically for the new program coached the patient teachers throughout their involvement, this initial experiment highlights the importance of preparing patient teachers—as well as physician teachers—for teaching. Indeed, the 2-person approach to teaching and facilitating practice analysis groups requires specific skills that can be acquired by either formal or experiential training (32). For this project, the patient teachers were trained via patient meetings (roughly every 2 months), under the guidance of patient researchers, as recommended in the literature (25). The content was harmonized at those meetings by pooling the patient teachers' experiences and approaches. The meetings gave the patients an opportunity to reflect on their involvement and construct broader educational messages (not limited to their own pathology).

Study Limitations

This study had some limitations. The opinions of the GPRs on patient teacher's characteristics and capacities both "before and after patient teacher's involvement" were collected at the same time, after patient teacher's involvement. This constitutes bias. General practice residents' opinion "before patient teacher involvement" may have been colored by their exposure to the patient teacher(s) during their training (reflective practice groups and lessons on health democracy). Another limitation is related to the use of an invalidated questionnaire in the absence of a questionnaire identified in the scientific literature. Some of the questions proved to be poorly formulated or imprecise, making interpretation difficult. In the future, the improved questionnaire will be administered at the beginning and end of each year of training in order to confirm these results. The qualitative analysis based on GPR's comments may also constitute a bias by the fact that only one researcher conducted this analysis, diminishing the reliability criterion specific to qualitative research. Lastly, the results obtained cannot be generalized directly to all university general practitioner medical courses. Indeed, each training course differs from the others by its pedagogical approach. Our study looked at students' perceptions on the place and contribution of patient teachers during the reflective practice groups, an educational method not found in all training courses. In fact, the results can only be generalized if they are discussed according to the pedagogical formats of the training and the determined role of the patient teachers.

Conclusion

This study demonstrated the utility and—despite some dissenting voices among the GPRs—recognition of patient teachers' specific contributions to general practice training in France. Patient teacher participation—along with

physician teachers—in reflective practice groups is new, and the residents found the experience to be positive and useful to their learning process. The GPRs felt that the patient teachers helped develop their competencies by providing patient-specific content. This innovative program is continuing with new student cohorts. To complement these results, it would be interesting to assess the longer term impact of patient teacher involvement on general practitioners.

Consistent with patient engagement in health professional's training, the perspective of health professionals is essential to improve the training program. Similarly, the participation of patients in the organization of the curriculum is important as soon as their status is recognized and valued financially.

Authors' Note

M.J.A. conducted the study, including designing the questionnaire, collecting and analysing the data, and drafting the manuscript. R.G. and O.G. helped design the study (questionnaire development), interpret the results, and improve the manuscript. C.-A.K. and S.H. helped design and administer the questionnaire, collect the data, and improve the manuscript. A.M. and Y.R. helped design the study, interpret the results, and improve the manuscript. C.M. supervised all phases of the study, including questionnaire design, data analysis, and manuscript development. All of the authors participated in manuscript preparation and have approved the version submitted for publication.

Acknowledgments

The authors would like to thank the patient teachers involved in this innovative program and the general practice residents who participated in this study.



Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

ORCID iD

Yannick Ruelle  <http://orcid.org/0000-0002-4599-0613>
 Claire Marchand  <http://orcid.org/0000-0001-9212-4964>

References

1. Towle A, Bainbridge L, Godolphin W, Katz A, Kline C, Lown B, et al. Active patient involvement in the education of health professionals: active patient involvement in education. *Med Educ*. 2010;44:64-74.
2. World Health Organization. *Defining and Measuring the Social Accountability of Medical Schools*. Geneva: Division of Development of Human Resources for Health, World Health Organization; 1995.
3. Berlin A, Seymour C, Johnson I, Cupit S. Patient and Public Involvement in the Education of Tomorrow's Doctors. Report. London: UCL London Global University and The Patients Association; 2011.
4. Towle A, Farrell C, Gaines ME, Godolphin W, John G, Kline C, et al. The patient's voice in health and social care professional education: The Vancouver Statement. *Int J Health Governance*. 2016;21:18-25.
5. Spencer J, Blackmore D, Heard S, McCrorie P, McHaffie D, Scherpbier A, et al. Patient-oriented learning: a review of the role of the patient in the education of medical students. *Med Educ*. 2000;34:851-57.
6. Wykurz G, Kelly D. Developing the role of patients as teachers: literature review. *BMJ*. 2002;325:818-21.
7. Jha V, Quinton ND, Bekker HL, Roberts TE. Strategies and interventions for the involvement of real patients in medical education: a systematic review. *Med Educ*. 2009;43:10-20.
8. Morgan A, Jones D. Perceptions of service user and carer involvement in healthcare education and impact on students' knowledge and practice: a literature review. *Med Teach*. 2009;31:82-95.
9. Snyder H, Engström J. The antecedents, forms and consequences of patient involvement: a narrative review of the literature. *Int J Nurs Stud*. 2016;53:351-78.
10. Gross O, Gagnayre R. What expert patients report that they do in the French health care system, and the competencies and personality traits required. *Educ Ther Patient/Ther Patient Educ*. 2014;6:20104.
11. Pomey MP, Hihat H, Khalifa M, Lebel P, Néron A, Dumez V. Patient partnership in quality improvement of healthcare services: patients' inputs and challenges faced. *Patient Exp J*. 2015;2:29-42.
12. Gross O, Ruelle Y, Sannié T, Khau CA, Marchand C, Mercier A, et al. Un département universitaire de médecine générale au défi de la démocratie en santé : la formation d'internes de médecine générale par des patients-enseignants [Implication of a university department of general practice in health democracy: the training of general practice residents by patients as teachers]. *Revue Française des Affaires Sociales*. 2017:61-78.
13. Torre DM, Daley BJ, Sebastian JL, Elnicki DM. Overview of current learning theories for medical educators. *Am J Med*. 2006;119:903-7.
14. Allen P. Accountability for clinical governance: developing collective responsibility for quality in primary care. *BMJ*. 2000;321:608-11.
15. Attali C, Bail P, Magnier AM, Beis JN, Ghasarossian C, Gomes J, et al. Compétences pour le DES de médecine générale [Competencies for the DES in general practice]. *La Revue Exercer*. 2006;76:31-2.
16. Barr J, Ogden K, Rooney K. Committing to patient-centred medical education. *Clin Teach*. 2014;11:503-6.
17. Repper J, Breeze J. User and carer involvement in the training and education of health professionals: a review of the literature. *Int J Nurs Stud*. 2007;44:511-9.
18. Gross O, Ruelle Y, Khau CA, Sannié T, Gagnayre R. L'utilité des patients-enseignants dans la formation initiale des médecins généralistes [Role of patients as teachers in the general practice training]. *Revue Éducation Santé Sociétés*. 2017;3: 37-54.

19. Anderson T, Shattuck J. Design-based research: a decade of progress in education research. *Educ Res.* 2012;41:16-25.
20. O'Keefe M, Jones A. Promoting lay participation in medical school curriculum development: lay and faculty. *Med Educ.* 2007;41:131-7.
21. Pouilly N, Gérard L, Macaire C. L'intégration du patient enseignant dans le cursus de formation universitaire des internes de médecine générale: évaluation qualitative de l'acceptabilité de leur enseignement [Integrating Patient as Teacher into the University Training Curriculum of General Practice: Qualitative Evaluation of the Acceptability of Their Teaching] [master's thesis]. Bobigny: Université Paris 13 Sorbonne Paris Cité; 2016.
22. Renard E, Alliot-Licht B, Gross O, Roger-Leroi V, Marchand C. Study of the impacts of patient-educators on the course of basic sciences in dental studies. *Eur J Dent Educ.* 2015;19:31-7.
23. Mann K, Gordon J, MacLeod A. Reflection and reflective practice in health professions education: a systematic review. *Adv Health Sci Educ.* 2009;14:595-621.
24. Sobral D. An appraisal of medical students' reflection-in-learning. *Med Educ.* 2000;34:182-7.
25. Cheng PT, Towle A. How patient educators help students to learn: an exploratory study. *Med Teach.* 2017;39:308-14.
26. Hendry GD, Schrieber L, Bryce D. Patients teach students: partners in arthritis education. *Med Educ.* 1999;33:674-7.
27. Raj N, Badcock LJ, Brown GA, Deighton CM, O'Reilly SC. Undergraduate musculoskeletal examination teaching by trained patient educators—a comparison with doctor-led teaching. *Rheumatology (Oxford).* 2006;45:1404-8.
28. Evans RG, Edwards A, Evans S, Elwyn B, Elwyn G. Assessing the practising physician using patient surveys: a systematic review of instruments and feedback methods. *Fam Pract.* 2007;24:117-27.
29. Lai MM, Roberts N, Martin J. Effectiveness of patient feedback as an educational intervention to improve medical student consultation (PTA feedback study): study protocol for a randomized control trial. *Trial.* 2014;15:361.
30. Denniston C, Molloy E, Nestel D, Woodward-Kron R, Keating JL. Learning outcomes for communication skills across the health professions: a systematic literature review and qualitative synthesis. *BMJ Open.* 2017;7:e014570.
31. Towle A, Godolphin W. Patients as educators: interprofessional learning for patient-centred care. *Med Teach.* 2013;35:219-25.
32. Kolb D. *Experiential Learning: Experience as the Source of Learning and Development.* Englewood Cliffs: Prentice-Hall; 1984.

Author Biographies

Marie José Aires is an anesthetist trainer, with a master's degree in Public Health. She works at the Nurse Anesthetist School from Assistance Publique-Hôpitaux de Paris, France.

Rémi Gagnayre is a medical doctor, university professor, PhD in Educational Sciences, Head of the Health Education and Practices Laboratory (EA3412), University Paris 13 Sorbonne Paris Cité, Bobigny, France.

Olivia Gross is a patient researcher, PhD in Educational Sciences and Public Health, associate researcher at the Health Education and Practices Laboratory (EA3412), University Paris 13 Sorbonne Paris Cité, Bobigny, France.

Cam-Anh Khau is a general practitioner, associate senior lecturer in the University Department of General Practice, doctoral candidate in Public Health at Health Education and Practices Laboratory (EA3412), University Paris 13 Sorbonne Paris Cité, Bobigny, France.

Sophie Haghghi is a general practitioner and university assistant in the University Department of General Practice, University Paris 13 Sorbonne Paris Cité, Bobigny, France.

Alain Mercier is a general practitioner, university professor, PhD, Head of the University Department of General Practice, University Paris 13 Sorbonne Paris Cité, Bobigny, France.

Yannick Ruelle is a general practitioner, associate professor in the University Department of General Practice, University Paris 13 Sorbonne Paris Cité, Bobigny, France.

Claire Marchand is a nurse, PhD in Educational Sciences, teacher/researcher at the Health Education and Practices Laboratory (EA3412), University Paris 13 Sorbonne Paris Cité, Bobigny, France.