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Assessing Care Quality in General Practice; a Qualitative
Study of General Practitioners in Ireland

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Title

Assessing Care Quality in General Practice; a qualitative study of general practitioners in Ireland

Abstract

Background: It is estimated that each year in Ireland, approximately 29 million consultations occur in general practice with a patient satisfaction level of 90%. To date, research has been lacking on how GPs assess the quality of care.

Aim: To examine how GPs assess care quality during routine practice with respect to the pillars of quality improvement: effectiveness, safety, timeliness, equity, efficiency, sustainability, and person-centeredness.

Design and Setting: Qualitative study of general practitioners in Ireland.

Method: In this qualitative study, semi-structured interviews were conducted with 10 GPs recruited via a snow-ball sampling strategy. Interviews were recorded, transcribed, and analyzed. Quality “assessment points” were identified and themes were synthesized to produce a theoretical framework.

Results: Five female and five male GPs practicing in a variety of settings were interviewed. The age range was 33 to 68 years. 122 assessment points emerged from the data and were collated into 8 themes: the GP as a professional person, the patient and co-production, care team factors, direct care factors, outcome factors, practice environment and organization factors, external environment factors and improvement approach factors.

Conclusions: This is the first study to examine how GPs in Ireland assess care quality as a holistic construct during daily care. The qualitative approach applied yielded rich and diverse insights into the many assessment points that GPs use to inform their approach and actions as clinicians, managers, collaborators, and leaders to maximize patient care. The theory produced is likely useful and applicable for practicing GPs, healthcare administration, policymakers, and funders in planning and executing changes for quality improvement.

Keywords: General practice, Quality Improvement, Assessment

How this fits in: Quality and patient safety have long been regarded as a critical aspect of patient care; however, their assessment during the day-to-day work of GPs has not been established to date. Further understanding is fundamental to ensure that quality and safety levels can be maintained and improved into the future as care needs and delivery evolve. This paper contributes to that goal as the first study in Ireland to examine how GPs assess care quality as a holistic construct.

Introduction

Problem formulation

In Ireland each year, there are approximately 29 million general practice consultations with the average person visiting their general practitioner (GP) more than four times¹. Of these, roughly 90% are managed without need for further referral². General practice plays a central role in providing comprehensive primary healthcare across communities. Patient satisfaction rates are high at 90%, with patients recognizing good accessibility and person-centeredness³. Patients advise that a personable approach and responsive service are what really matter⁴.

These aspects of care represent key determinants of quality. Quality healthcare has been described as safe, timely, effective, efficient, equitable and patient-centred⁵. Worldwide, there is a recognized need to improve quality and safety levels for the benefit of patients and their health⁹⁻¹². As a means of providing high-quality healthcare for all, development and strengthening of primary care has been endorsed by the World Health Organization as being the most effective and efficient way of meeting the physical and mental health needs of populations¹³. This also aligns with UN sustainable development goal 3.8, universal access to quality essential healthcare services¹⁴.

Healthcare quality can be evaluated and measured in many ways. Traditionally, this focused on objectifiable measures, such as those categorized by Donabedian's structure, process, and outcome framework¹⁵. Recently, climate sustainability, well-being of healthcare professionals and a broader focus on "kinship" have been proposed as additional elements of quality⁶⁻⁸. The importance of culture as a perceptible determinant has also been established¹⁶. Furthermore, wider assessments from the perspective of the patient, their journey, and what matters to them have been proposed¹⁷.

In Ireland, the Health Information and Quality Authority have published quality standards to aid quality assessment in publicly funded healthcare settings¹⁸. While welcoming efforts to continuously improve healthcare quality and recognizing that much within these standards is already part of established everyday care, these received mixed responses from GPs concerned by potential resource implications and bureaucratic load¹⁹. Scientific and grey literature provides many examples of how specific quality domains have and are assessed in Irish General Practice including patient safety²⁰⁻²³, equity^{24,25}, efficiency^{26,27} and effectiveness²⁸. However, the assessment of quality as a holistic construct during the day-to-day work of GPs has not been established to date. Research from other jurisdictions suggests that additional exploration is both feasible and valuable^{29, 30}. Further understanding in this area is fundamental to ensure that quality and safety levels can be maintained and improved into the future as care needs and delivery evolve.

Research Question

How do General Practitioners (GPs) in Ireland assess the quality of the care that they provide to their patients? This includes how clinicians measure, evaluate, quantify, and track the effectiveness, safety, timeliness, equity, efficiency, sustainability and/or person-centeredness care provided during routine practice.

Method

This research is reported using the Standards for Reporting Qualitative Research (SRQR)³¹.

Qualitative Approach and Research Paradigm

This semi-structured interview-based research study utilizes a grounded theory approach and is underpinned by a postpositivist research paradigm. This facilitates open and rich responses offering insights into the assessment of quality from the perspective of individual GPs that may not be captured by a deductive approach³².

The professional background and experiences of the lead researcher as a fellow GP facilitated iterative question proposition and elaboration, potentially broadening the range of responses and consequently, the richness of information revealed. As the subject area is likely to represent a significant point of pride and raises issues of professional mastery for participants, the similar background of the researcher sought to provide a psychologically safer space to explore these issues in greater depth³³. Analysis and interpretation of the data are framed through the subjectivity of the research team as GPs with an interest in healthcare quality and safety along with a healthcare management specialist³⁴. It is important to note that the interviewees themselves did not declare any interest in quality improvement prior to recruitment.

Researchers' Characteristics and Reflexivity

The lead researcher is a vocationally trained and practicing GP. He has an active interest in healthcare quality improvement and patient safety and works with teams and individuals across the Irish healthcare system to realize improvements in patient care.

The co-investigator is a third-year medical student who previously, worked as a hospital Quality Improvement Specialist, having completed an MBA specializing in Health Services Management. He has an active interest in bridging the clinical and operational sides of healthcare to maximize patient care.

The two collaborating investigators are also active GPs with interests in quality and continually improving their practices.

Context

The context for this study is general practice in Ireland, where quality and safety of care are assessed on an ongoing basis by GPs. Participants all had a mixed pool of public and private patients and therefore no discrimination or differentiation was allowed by contract.

Sampling Strategy

Non-probability sampling was utilized. A purposive maximum variation approach was adopted to recruit participants. As the lead researcher is a GP, a snow-ball sampling strategy was used to recruit participants nominated by a variety of colleagues but not directly known. This allowed for open, honest, and diverse responses by reducing the risk of social desirability bias³⁵. Compared to convenience sampling, this strategy also likely lead to greater variation in participation and responses.

Recruitment and further interviews ceased with data saturation.

Inclusion Criteria: GPs practicing clinically for a minimum of one session/week in Ireland and registered on the Irish Medical Council specialist register.

Exclusion Criteria: GP trainees, GPs not practicing clinically, and doctors working in general practice but not on the Irish Medical Council specialist register. Only those actively practicing and completed training were selected to ensure adequate and up-to-date exposure to the field.

Ethical issues

This study was approved after review by the Department Head at Imperial College Research Governance and Integrity Team. No significant ethical issues were identified in the protocol or ethics application and deemed not to require full ethics committee review. All participants provided voluntary signed informed consent, were pseudonymized at the point of interview transcription and were assured of protection of personal data through the General Data Protection Regulation (GDPR), Data Protection Act 2018, and UK Policy Framework for Health and Social Care Research.

Data collection methods, instruments, and technology

For convenience and health reasons during the Covid-19 pandemic, semi-structured interviews were conducted by the GP lead researcher and supported by the co-investigator medical student over Zoom between July 22nd and August 23rd, 2022. With consent, each interview was recorded for transcription and reviewed subsequently to ensure accuracy. Interviews lasted between 34-62 minutes and were conducted in accordance with the interview guide (Appendix 1). The questions and process were iterated with each interview and informed by previous responses. Demographic data was recorded via Google Form at the time of consent. Data analysis was conducted between August 27th and October 9th, 2022.

Data Processing

To ensure data security, recordings were saved directly from Zoom and Google Form to a password-protected and encrypted hard-drive device. Demographic data was pseudonymized at the point of transcription. Participants were assigned a study reference number sequentially based on interview order. Transcription was performed directly and verbatim from recordings using Microsoft Word, including indicators of tone, posture, body language and non-verbal cues.

Data Analysis

Data was analyzed using an inductive approach based on grounded theory by each member of the team. Data analysis began with a familiarization process through subdivision based on seven domains of healthcare quality: safety, timeliness, effectiveness, efficiency, equity, person-centeredness, and sustainability. An “assessment point” was deemed to be any factor identified as evaluative in nature or informing of subsequent action relating to any aspect of quality in general practice. The process of familiarization facilitated “constant comparison” and the emergence of themes from identified assessment points³⁴. Given the different backgrounds of the team, identified themes were synthesized, categorized, and collated into a taxonomy. From this, a theory was produced.

Techniques to enhance trustworthiness

A panel consisting of five independent practicing GP colleagues were invited to review the data and taxonomy to inform further iteration for enhanced truth value, to ensure consistency and optimize applicability.

A focus group was also conducted with participants to review and finalize the results. This group involved the research team, the GP panel, and four interviewees who expressed an interest at the end of their respective interviews. The objectives of the group were to assess the representativeness of the findings based on their own experiences, to identify the omission of important ideas, to ensure clarity of potential biases and methodology decisions, and to evaluate the applicability across GP settings and contexts.

Results

Synthesis and interpretation

Ten GPs (five female and five male) were interviewed as part of this study. The age range of participants was 33-68 years (median 44 years). All completed a formal GP training programme. One identified as practicing solely in rural settings, one in urban settings and the remaining eight in mixed clinical settings.

122 different quality assessment points emerged from the data. These were collated into 31 sub-themes which were categorized into 8 themes as shown in Supplementary Table 1.

Empirical data to support each theme is included in Supplementary Table 2.

Theme 1: GP as Professional Person Factors

This theme relates to how the professional and personal characteristics of GPs are an intrinsic part of how quality is assessed in general practice. Most participants discussed formal training, postgraduate qualifications, continuing medical education and further learning from practicing as an objective means of assuring standards within the profession, especially regarding care effectiveness. More subjectively, participants reflected on a seemingly automatic process of comparison with colleagues when assessing aspects of their

performance. Participants also elaborated on professional feelings, characteristics and abilities when considering quality issues, as well as acknowledging how professional and personal aspects are important determinants of the work quality producible.

"Basing a lot of it on experience, both the different GPs in the practice of their current environment versus what they've seen previously and what their knowledge of the evidence is"

(GP 10, male)

"Being a trainer really keeps you on your toes cause you have to know the knowledge..."

(GP 7, female)

"I would know myself and I'm kind of getting burned out and getting tired from it. "(GP 5, Male)

Theme 2: Patient and Co-production Factors

All participants referenced the role of the patient in assessing care quality in general practice noting the importance of developing an open and empowering two-way therapeutic relationship. Assessments can be explicit, through direct feedback, whether informally provided during routine care or through a formal complaint. However, implicit patient motivation, understanding, knowledge, expectation, sense of empowerment, frequency of attendance, and family referrals were recognized as key aspects of assessing person-centered care. The role that the GP plays in facilitating the co-production of health through an atmosphere conducive to collaboration and the development of longitudinal relationships was also regarded as important.

"It's not just about the complaints. There are people that are generally happy as well...it helps to kind of shape what you're going to do and how you're gonna change things" (GP 9, female)

"...it's very important to have the patient with you on the journey and not just be telling them what to do next...and you have to empower the patients." (GP 7, female)

"...it's like a referral or a vote of confidence, if you've seen a family member and the next thing another family member is coming to you..." (GP 3, female)

Theme 3: Care Team Factors

As the provision of care in general practice is team-based, participants identified assessable aspects of team arrangement and function as critical for achieving high-quality care. This involves fellow physicians and all members of the work environment from administrative staff to allied health. Communication between team members, in more and less structured situations, was highlighted by multiple participants as a key determinant of high-quality care provision. Defined, yet flexible roles coupled with optimal methods and mutual learning built upon positive relationships were perceived as significant. Teamwork across care boundaries was mentioned as imperative for integrating care.

“If staff are comfortable and enjoying work and there's a good atmosphere and a good dynamic in the workplace, it's, it's bound to improve the quality of the service and it's bound to feed down into patient care.” (GP 1, female)

“Is the thing that everyone's doing, working at...the highest level of their skillset?” (GP 2, male)

“We try and be proactive and listen to our staff. And we do change things regularly.” (GP 1, female)

Theme 4: Direct Care Factors

Participants referenced many aspects of the actual process of providing direct care when assessing different aspects of care quality. This begins with the varied and often complex presentation of ill health. The consultation, as both a vehicle and vessel for care provision, its timeliness, nature, length, and interruptions during which clinical acumen is exercised, was ascertained by participants as where timeliness, effectiveness, person-centeredness, safety, and efficiency collide. In this unit of GP work, participants alluded to how evidence-based medicine is personalized, practice-designed protocols are followed, opportunities for further screening are realized, wider social determinants of health are explored and occasionally errors come to pass. In the aftermath and between consultations, care continues through associated clinical administrative work, in out-of-hours and in emergency settings providing further feedback loops.

“Doctors get a sense... the quality we deliver by feeling that a consultation has a beginning, a middle and end, that you've listened, you've made a plan and you've come to the end of the consultation with the patient, happy with what you've done, and what you've discussed” (GP 1, female)

“We have protocols for typical scenarios. And those are all templated in our software so they can be used...” (GP 7, male)

Theme 5: Outcome Factors

Identified as possibly the most objective and ultimate determinant of care quality, clinical outcomes for patients, whether cure, illness control or death are assessed continuously. This assessment can involve numerical clinical parameters or more subjective patient symptom reports. When assessing outcomes, participants implied consideration of outcomes not just for individual patients, but for families and the wider community as well as defined geographically and by practice patient population.

“If they're in with high blood pressure, you would like to see on follow-up visits that blood pressure's controlled. You've got them on appropriate medication. They're not getting side effects. They're feeling well. Blood pressure's a very real measurable thing” (GP 4, female)

“I must say hard outcome measures, like morbidity, mortality, things like that, you know, and things that we can measure that against...” (GP 8, male)

Theme 6: Practice Environment and Organization Factors

Operating also at the systems level, participants discussed facets of creating and facilitating patient care for a practice overall. In assessing aspects of quality, the importance of managing access, availability, asynchronous workflows (e.g. correspondence, test results etc.) and overall capacity was voiced. The organizational challenges of staffing, balancing clinical and non-clinical work, planning for the unexpected, and limiting climate impact were also highlighted. As with any independent business, financial solvency was pointed out as a determinant of whether a practice can remain open with the necessary physical layout and infrastructure to provide care.

“How are we measuring access? So in simple terms, availability of appointments, availability of doctor time, availability of nurse time, delay in getting results... how long prescription requests are sitting there.” (GP 1, female)

“It’s really important obviously to look at...the financial figures on a regular basis and make sure that things are ticking along...there’s a lot of staff that need to be paid...expenses in the practice, and then at the end of the day there has to be a few... for the doctors.” (GP 1, female)

“Physical work environments...the rooms, the furniture, the colour of the walls, all sorts of things, really feed into a sense of wellbeing, which you know, is really important...how do we measure that? ...it comes back to our meetings.” (GP 1, female)

Theme 7: External Environment Factors

General practices operate within and are influenced by the wider health and social care system. While often not directly under the control of the GP, participants considered wider cultural changes in healthcare as having the potential to affect quality care in their practice either negatively (e.g. defensive medicine) or positively (e.g. open disclosure). This was also true of wider determinants of patient journey, such as factors affecting equity of access to general practice (funding, geography, age, ethnicity, and language). Within the tapestry of healthcare demand, supply, and oversight; wider health system access limitations, contractual obligations, workforce shortages, and national standards and protocols were evaluated by participants as particularly impactful on care effectiveness, safety, equity, and sustainability.

“The IMO (Irish Medical Organisation) have kind of figures about how...in various counties, how many GPs were going to retire in the next five years...alarming numbers in some counties... And there doesn’t seem to be that many people around to kind of fill that role...” (GP 8, male)

“...it’s very much on clinical need... There’s no discrimination on sexual orientation or ethnicity or anything. If somebody needs an appointment and [there is an] appointment available, they get it.” (GP 4, female)

Theme 8: Improvement Approach Factors

Most participants discussed the assessment of quality in the context of improving it. Several participants identified clinical audit as being a widely used structured approach to assessing quality in general practice for its improvement, together with its role in fulfilling a professional registration requirement. In addition, significant event analysis was recognized by several as an important patient safety learning approach. Outside of this, approaches to drive quality improvement included the use of quantifiable data (e.g. key performance indicators), iterative tests of change and formal medicines reviews. Though direct, GPs noted how their workload influenced their ability to implement performance indicators.

“...it's only by auditing really your performance, that you can learn anything...You can think you're doing very well. You can think your outcomes are very good.” (GP 7, female)

“We're looking at KPIs for performance on certain things, but that's just being looked at, at the moment. There might be a little bit of resistance there...” (GP 7, female)

Assessing Care Quality in General Practice: A Theoretical Framework

Figure 1 illustrates a general theoretical framework for assessing care quality in general practice in Ireland. This theory is synthesized from the qualitative data gathered through the participant interviews, the identified quality assessment points, emergent themes, and the categorization of these themes (Table S1, Table S2). It recognizes multifaceted ways by which GPs in Ireland assess the quality of care in general practice on a comprehensive basis, both subjectively and objectively, with and without structure, measurable and unmeasurable, sometimes continuously and sometimes intermittently, clinically, organizationally, personally, and professionally.

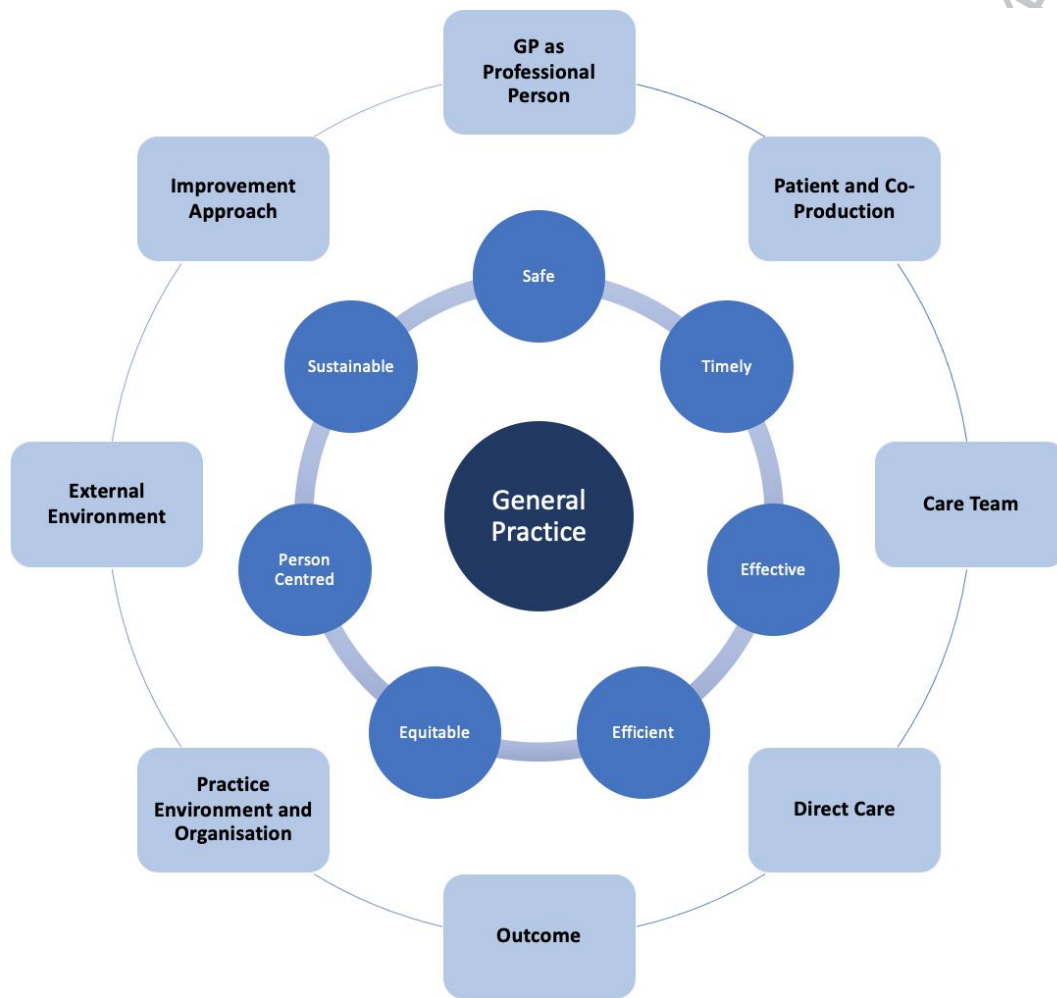


Figure 1. Theoretical Framework of Assessing Care Quality in General Practice

Discussion

Summary

This is the first study to examine how GPs in Ireland assess care quality as a holistic construct during routine care. The qualitative approach applied yielded rich and diverse insights into many assessment points that GPs use to inform their approach and actions as clinicians, managers, collaborators, and leaders for producing the best possible healthcare. Given the number and breadth of these assessment points, the emergence of themes allows the categorization of these important factors. Although other factors such as culture and practice-specific characteristics need to be considered, this helps lay a foundation to guide quality improvement. The development of a theory is aimed at facilitating the pragmatic application of this new knowledge for busy GPs to assist them in better understanding and

improving quality for patients. It is also likely to be of value to policymakers and funders in planning and executing change at the wider system level.

Strengths and Limitations

The strengths of this study lie in its novelty and truth value as informed by the rich and diverse participant responses. GPs of different genders, ages, and backgrounds were interviewed which allowed the capturing of varying perspectives. It also has immediate applicability to general practice across Ireland. By collating all quality assessment points, a single theoretical framework allows for ease of interpretation.

There are also several limitations to this study. The sample size of 10 participants relatively small for a qualitative study; expanding this in subsequent iterations may further improve its representativeness. Despite this, the depth and breadth of the interviews sought to mitigate this. Through using a snow-ball sampling strategy with recruitment by colleagues, it is possible that sample variation was limited. This is evidenced by the fact that all GPs reported their ethnicity as “white”, and all participants had completed a formal GP training programme despite this not being an Irish Medical Council requirement to practice as a GP in Ireland.

Overall, the truth value has been optimized through iteration with an independent panel of GPs through the participation of interviewees in the focus group to review and finalize the results. There is potential that aspects of this research and theory will be applicable to similar healthcare settings outside of Irish general practice, but this remains to be tested in other contexts.

Comparison with existing literature

The picture that emerges from this study is one of complexity and adaptability in Irish general practice. This aligns with previously published work on systems thinking and the complex adaptive nature of healthcare more broadly^{36,37}. For example, in the quality domain of safety, linear cause and effect models are largely being replaced by approaches that respect healthcare as a socio-technical system requiring new frameworks, models, tools and

mindsets rooted in the messy real-world work of care provision³⁸⁻⁴⁰. With these come more nuanced means of measuring and monitoring safety along a continuum, at the frontline and from different perspectives⁴¹. It is necessary to appreciate the utility of this broader systems frame when faced with complexity as is evidenced here in Irish general practice; yet patient safety is only one quality domain and often different domains and “side effects of change” need to be balanced⁴².

There are already examples in Ireland of successful application of this systems-based approach for quality improvement within complex organisations⁴³. The implications of these findings are timely as Irish general practice may be undergoing a rapid evolution as indicated by the recent adoption of a structured chronic disease management programme⁴⁴, greater access to contraception⁴⁵ and a move towards greater integration with other healthcare services⁴⁶. Further force for change is coming from an increasing burden of care as the general population ages⁴⁷, rising chronic disease rates⁴⁸ and retirement of a significant proportion of the current GP workforce⁴⁹. This will equate to change in the context of complexity and consequently, quality general practice must adapt.

Context in healthcare can be defined as “a multi-dimensional construct encompassing micro, meso and macro level determinants that are pre-existing, dynamic and emergent throughout the implementation process⁵⁰.” Such is the importance of context; it has been proposed that a paradigm shift in health services research may be necessary to increase the success of change implementation⁵¹. Successful strides must move with this shift in laying the foundation for understanding how GPs in Ireland assess quality in their context.

A fundamental part of this context is the established frame of general practice as set out in the European Definition of General Practice. This emphasizes many roles of the GP and the centrality of a community-oriented, comprehensive, person-centered and holistic approach⁵².

This ethos underpins the co-production of health, which has been defined as “the interdependent work of patients and professionals to design, deliver, assess and improve the relationships and actions that contribute to the health of individuals and populations through mutual respect and partnership that leverages each participant’s unique assets,

expertise and actions”⁵³. Co-production has been identified as the next frontier of healthcare quality improvement building upon threshold standards and systems approaches, with demonstrable success in supporting individuals, communities, and populations in realizing greater health^{54,55}. It is also intrinsic to the concept of “learning health systems”⁵⁶. As co-production emerges so clearly from this study as a key aspect of quality assessment in general practice, it appears possible that the wider healthcare system could learn from this core focus for the improvement of other areas of healthcare.

Implications for Research and/or Practice

To continuously improve healthcare quality, it is necessary to understand, in so far as possible, how high-quality healthcare is created. Quality is a multidimensional concept that is essential to provide safe, timely, and equitable care leading to better patient outcomes, satisfaction and an overall improvement in the system’s efficiency and effectiveness. This study and resultant theory demonstrate the complexity of how GPs assess quality in the dynamic setting of general practice in Ireland. This may serve as a useful guide for GPs seeking to reflect and identify areas of their own practice for improvement, as well as payers, planners and policymakers seeking to re-design for higher quality coproduced care across populations. Further research in this area will be necessary to examine utility of this theory and to evaluate the pragmatism of identified measures as potentially useful drivers for quality improvement.

Notes

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Ethical approval

This study was approved by the Imperial College Research Ethics Committee process. (ICREC Reference Number 22IC7649)

Provenance

This paper was freely submitted and externally peer-reviewed.

Competing interests

The authors have no competing interests to declare.

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