Effect of Longitudinal Care in Primary Health Care: An Analysis from the Patient's Perspective

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Acronym: CUALIPRIM

1. Title

Effect of Longitudinal Care in Primary Health Care: An Analysis from the Patient's Perspective

2. Keywords

Qualitative, Primary Health Care, Longitudinality

3. Background and Current State of the Issue

Primary Health Care (PHC) is the foundation of our healthcare system. In its more than 3,000 Health Centers and 10,000 local clinics distributed across Spanish neighborhoods, 262 million medical consultations and 191 million nursing consultations are carried out annually, according to data from the Ministry of Health (1). This care system, based on Family Care Units composed of a physician and a nurse, always caring for the same group of people, has proven to provide the best health outcomes for the population as a whole, as well as being the most efficient model (2,3). However, this level of care receives only 14.2% of public health expenditure, compared to 62.7% allocated to hospitals and 15.2% to pharmaceuticals (1).

The main attributes of this level of care are person-centered care rather than disease centered care (comprehensiveness), continuity of care by the same professional over time (longitudinality), continuity across different professionals and levels of care (continuity), accessibility for the entire population (accessibility), and coordination between primary and specialist care providers (coordination) (4).

Of all these defining elements of PHC, longitudinality has demonstrated the greatest impact (1). Growing evidence shows that personalized, long-term care by the same professional reduces mortality, morbidity, and hospital use, while improving patient satisfaction (5,6,7). In 2022, Sandvik et al. published a study showing mortality reductions of up to 30% as a result of being followed by the same family physician for 15 years. These effects are attributed to the development of a doctor–patient relationship based on commitment, trust, and mutual understanding, which enables professionals to better adapt to the specific needs of their patients, to know their environment and illnesses more thoroughly, and to increase patients' trust in the healthcare provider. This relationship allows earlier recognition of health problems and helps prevent overdiagnosis, medicalization, and adverse events from unnecessary tests or treatments (9).

However, the core principles of PHC are in crisis, being gradually replaced by immediacy, lack of coordination, and fragmentation of care. In a context where most PHC interventions and care are devoted to chronic, complex, polymedicated, and often dependent or socially isolated patients, it is reasonable to assume that the future of PHC depends on how health systems address current health, social, economic, political, and demographic challenges. With 36,000 physicians in the Spanish PHC network and a current deficit of 5,000 (14% of positions unfilled) (10), the situation is alarming. The Primary Care Forum — comprising eight professional associations and scientific societies — has warned that PHC could

disappear if urgent measures are not taken (11). According to the Health Barometer published in February 2023, 44% of respondents are affected by this situation in their health centers. To address these deficits, respondents prioritize maintaining a stable family physician, increasing healthcare staff, and allocating more financial resources (12).

4. Rationale of the Study

In this crisis context of Spanish PHC, our research group seeks to understand the perception of patients who rely most on it and the consequences that professional instability and physician shortages have for them, leaving population panels unattended for long periods. Although quantitative studies have explored the benefits of stronger doctor–patient relationships (2,3,8) and patient preferences for continuity (13), we have found no qualitative studies exploring the dimensions of longitudinality from the patient's perspective, nor any that identify the perceived effects of the current crisis on their health or their subjective view of PHC's decline.

Hence, there is a clear need to design and implement a study to deeply understand, from the perspective of patients who depend on PHC to maintain their health, the perceived impact of physician shortages and lack of stable, long-term professional assignments. Such a study would be pioneering in Spain.

5. Objectives

a. General Objectives

- To gain in-depth understanding of patients' subjective experiences and the potential health impact of being cared for over time by the same physician versus the effects of professional instability in medical staffing in PHC centers in Granada.

b. Specific Objectives

- To explore users' perceptions of the organization of PHC according to age, gender, and contextual factors.
- To explore possible solutions to the current situation from users' perspectives.

6. Hypothesis

Longitudinality is key to establishing a trusting doctor–patient relationship in PHC. The loss of this relationship constitutes a barrier to communication about health problems, worsens the follow-up of chronic conditions, and reduces confidence in the healthcare system. Understanding patients' perspectives on this relationship will help clarify the consequences of the PHC crisis and guide solutions aligned with population needs.

7. Methodology

a. Design

This will be a qualitative study using in-depth interviews within a phenomenological–ethnographic framework, aimed at understanding participants' subjective experiences and meanings regarding the continuity of medical professionals in PHC.

b. Study and Reference Population

The study seeks to explore the experiences of users from PHC centers who do not currently have an assigned doctor—or have lacked one in the four weeks prior to data collection—in various areas of Granada and its surroundings. Maximum geographical and socioeconomic variability will be pursued, selecting centers from high-, middle-, and low-income urban neighborhoods, and one rural area:

- **Gran Capitán Health Center:** highest average gross income in Granada (€34,848 per capita)
- **Cartuja Health Center:** lowest average gross income (€20,354 per capita)
- **La Chana Health Center:** higher-income area among working-class neighborhoods (€23,291 per capita)
- **Huétor Santillán Clinic:** rural area with an average gross income of €32,660 per capita, the richest town in the region.
- **Zafarraya Clinic:** rural area with an average gross income of €18,875 per capita, the poorest town in the region.

(Income data from the Spanish Tax Agency, 2017.)

For the reference population, we will identify Family Care Units (UAF) that have had the same family physician for at least two consecutive years within the past ten, and have lacked a stable physician for at least three of the past six months.

The research team will adopt an etic perspective, treating participants as the main source of knowledge construction on the subject of study.

c. Inclusion and Exclusion Criteria

To ensure heterogeneity, segmentation will be based on sex, age, geographical area (urban/rural), duration of physician stability or absence, type and number of chronic conditions, medication use, and social and economic context, as well as dependency status.

Inclusion criteria:

- Being assigned to a patient list that has lacked a family physician for at least three of the past six months.
- Having previously been under the care of the same family physician for at least two consecutive years within the past ten.
- Meeting at least one of the following conditions:

- Age over 75 years
- Having a chronic illness requiring medical attention at least twice a year (e.g., diabetes, chronic non-cancer pain, heart failure, COPD, mental disorders)
- Use of six or more medications
- Social or economic vulnerability
- Dependence requiring support from informal caregivers

Exclusion criteria:

- Being under 18 years old.

d. Sample Size and Sampling Procedure

Sampling will be theoretical and purposive, aimed at achieving maximum discursive variability and capturing diverse conceptual meanings related to the study topic.

Five participants will be selected a priori from each Family Care Unit (n = 25), identified through key informants (nurses, social workers, relatives, administrative staff, etc.). This sample size is expected to be sufficient to reach discourse saturation; if not achieved, additional participants will be recruited until thematic saturation is obtained.

n cases where patients are unable to participate in the interview due to cognitive impairment or any other condition, the interview will be conducted with their caregivers, following the corresponding informed consent procedure.

e. Variables and Data Collection

Data will be gathered through semi-structured individual interviews, allowing flexibility regarding time and location according to participants' preferences (including home interviews if needed).

The initial opening question will be:

"What does it mean to you that your family doctor is always the same person?"

Subsequent questions, designed from thematic hypotheses and refined into conversational form, include:

- Have you noticed any differences in the care you receive when you already know your doctor?
- Do you think the relationship you have with your doctor influences how well they address your health problems?
- Do you encounter barriers in the healthcare system when you do not have an assigned physician?

- Have you ever refrained from mentioning a health problem because you were not familiar with the doctor attending you? If yes, did it have any consequence for your health?

Sociodemographic and contextual data will also be collected: age, gender, education level, degree of independence (Barthel Index), and number of hospital admissions over the past two years.

f. Data Analysis

A qualitative content analysis will be performed. The interviews will be transcribed verbatim, read repeatedly by two independent researchers, and coded inductively to identify meaning units and generate thematic categories. This process will follow a summative approach, emphasizing the semantic content and meaning of participants' discourse.

Triangulation of sources and investigators will be used to ensure validity and credibility. To maintain rigor, the study will adhere to the principles of coherence, credibility, transferability, consistency, and relevance.

Qualitative data management and analysis will be supported by NVivo 11 Plus software.

g. Study Limitations

Qualitative methodologies inherently limit generalizability to other contexts. This project does not aim for generalization, but rather to represent the diversity of cases within a defined geographic area.

A potential limitation is selection bias, since the sampling is purposive rather than random. However, this bias will be controlled and transparent, as the participant profiles and selection process can be replicated.

h. Ethical Considerations

Participation involves a single interview addressing personal experiences related to health and care, which may include sensitive reflections on the healthcare system and physician continuity. Participants will receive an information sheet and provide verbal and written informed consent, understanding that they may withdraw at any time and that data will be anonymized.

The study will obtain approval from the appropriate Research Ethics Committee. Data management and confidentiality will comply with Spanish Organic Law 3/2018 on Personal Data Protection. Participants' rights to access, rectify, oppose, or cancel their data will be guaranteed, in accordance with current legislation.

9. Work Plan

Activity / Task	Timeline
Literature review	Throughout the project (Jan 2024 – end)
Project submission	February 2024
Participant recruitment, ethics and institutional permissions, informed consent	February 2024
Individual interviews	March 2024
Transcription, data analysis, triangulation	April 2024
Final report and dissemination of results	April–May 2024
Manuscript preparation and submission	May 2024

10. Applicability and Practical Use of Results

This study seeks to deepen understanding of the impact that the current shortage of family physicians has on patients who most need continuity of care. Patients' perspectives are crucial, as they are the rights-holders whom the health system is designed to serve.

By designing a care system that patients want to participate in, we can improve chronic disease control, enable earlier diagnosis, and prevent overdiagnosis and overtreatment.

Through an innovative qualitative approach—conducting in-depth interviews with patients who have spent time without an assigned physician—this study aims to provide valuable insight for health authorities into the relevance of longitudinality in today's healthcare context.

11. Available Resources

A) Equipment and Materials

- Computer for data storage and processing
- NVivo 11 Plus software license for qualitative analysis
- Digital voice recorder with three microphones
- Notebooks for field notes and other stationery

B) Bibliographic Resources
Access to the University of Granada Library and the Andalusian Public Health System Virtual Library for literature review and updates.

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