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VERSO UN SISTEMA PATIENT-FRIENDLY: SFIDE E OPPORTUNITÀ DEL SISTEMA SANITARIO ITALIANO

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Politecnico di Torino

MASTER OF SCIENCE THESIS

TOWARDS A PATIENT-FRIENDLY SYSTEM: CHALLENGES AND OPPORTUNITIES OF ITALIAN HEALTHCARE

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'Enjoy the butterflies, enjoy being naïve. Enjoy the nerves, the pressure.

If you want stand on the top from day one, then there's nothing else to look forward to.

Enjoy the process of making a name for yourself and meeting some great people along the way. There's a lot of worldly people that you can laugh with, learn from, enjoy some moments with.

So, embrace the good ones, stay focused, don't be too far off your path, just keep trying to build and grow, and learn from yourself.

But don't forget what got you here.

Bring friends along, bring family along. They might be something to take the weight off your shoulders on the race weekends, they're also people to enjoy the moments with, to celebrate with.

So don't be afraid to surround yourself with people that you care about and love, they're also excited to be on this journey too.'

-Daniel Ricciardo

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Abstract

This thesis explores the emerging concept of patient empowerment within the Italian National Health System (SSN) in order to assess its potential to address long-term inefficiencies. Empowerment is shown as a complex idea that encompasses autonomy, shared decision-making, and digital access, rather than a single, definitive definition. Instead, then being characterized as purely an individual activation, it is presented here as a systemic and relational process that is influenced by organizational, technical, and structural elements.

A mixed-methods strategy was employed to investigate how this idea is implemented in reality, combining semi-structured interviews with medical professionals with national and international patient surveys. Chronic underfunding, geographical differences, bureaucratic fragmentation, and a lack of time for effective clinician-patient communication are among the significant obstacles identified by the research.

This thesis argues that closing the gap between policy and practice is necessary for true empowerment. In order to achieve this, substantial, system-level reforms are required, which include redefining care partnerships based on trust and co-production, guaranteeing fair access to information and providing ongoing support throughout the care journey. In the end, patient empowerment needs to be viewed as a comprehensive change that incorporates person-centred care, health equity, and digital innovation into the very core of the healthcare system.

Keywords: Patient empowerment, Shared decision-making, Digital health literacy, Italian National Health System, Patient-centred care.

Chapter 1

Introduction

The 21st century, despite benefiting from technological innovation and progresses in medical sciences, is nonetheless marked by emerging challenges that healthcare systems, and professionals, must deal with - especially when it comes to Italy. For instance, Eurostat data indicate that the proportion of Europeans aged 65 and over has risen from 16% in 2001 to 21% in 2023 [1], with Italy recording the highest share at 23%, followed by Greece, Finland, Portugal, Germany, and Bulgaria (all at 22%) [2].

These demographic pressures have increased the request for healthcare services, intensifying the stress on both financial and human resources. At the same time, however, Italian healthcare systems are facing a serious workforce crisis. Such trends not only threaten the capacity of the healthcare workforce but also worsen regional imbalances, because of the discrepancies in the distribution of healthcare professionals and resources across the nation. Moreover, acute care beds dropped from 422 to 260 per 100,000 people

(2000–2019) as policies shifted toward outpatient care, making hospital planning crucial. However, healthcare planning in Italy relies on strategic budgeting and regional fund allocation, with healthcare spending reaching 8.7% of GDP in 2019, 74% publicly funded, while private out-of-pocket expenses is growing. [3]

Additionally, although technological progress has drastically improved diagnostics, treatment options, and disease management, [4], the integration of these developments into existing healthcare processes has often lagged. The landscape has become even more complicated due to traditional, volume-driven care models, which prioritize the quantity of services provided over their effect on patient outcomes [3].

In this context of rising pressures and resource constraints, patient empowerment arises as a transformative strategy. '*Patient empowerment'* is a multidimensional concept that refers to the process through which individuals gain control over decisions and actions affecting their health. Actively involving patients in the decision-making process and adopting digital technologies to increase access to a comprehensive health information can facilitate a much-needed transition from traditional provider-centric models to more patient-centred, balanced, and effective approaches. Patient empowerment is not only a conceptual shift, but it represents a pragmatic response to the challenges of an aging society, chronic disease prevalence, and the persistent stress on the medical staff. [5]

This thesis, therefore, studies the role of patient empowerment within the evolving European and Italian healthcare landscapes. It investigates how demographic trends, regional disparities, workforce shortages, and the challenges of integrating technological advancements contribute to the current pressures on healthcare systems. In terms of scope of analysis, this study focuses on primary care services within the national healthcare system, with a particular focus on patients living with chronic conditions. In doing so, it tries to identify strategies that can bridge the gap between existing service delivery models and the need for a more integrated, patient-centred approach - a transformation that is essential, on a national level, for ensuring the efficacy of healthcare services.

Chapter 2

Methodology

The methodology adopted in this thesis, uses both quantitative and qualitative data gathered from patients, medical experts and literature research in a mixed-method approach.

Through the use of statistical methods to quantify the viewpoints of the target demographic and the addition of a qualitative point of view to better understand the potential obstacles, this technique was chosen to ensure a thorough and objective examination. This approach links characteristics of primary care settings with outcomes and experiences of patients and allows analysis and further interpretation of findings in light of primary care characteristics, creating a foundation for primary care policy reforms.

By implementing this strategy, the aim is to consider the patients[1]' experiences, pointing out any weaknesses and modifications they would want to see implemented. In addition, a literature review was carried out, in order to better picture the current situation in the Italian SSN (National Health System – *Sistema Sanitario Nazionale*), the bureaucracy landscape, the challenges and changes planned. The point of view of healthcare professionals is also considered crucial since they may help confirm some of the findings and better understand any issues by sharing their thoughts on what they believe should be changed based on their experience.

2.1 Mixed-methodological Approach

As previously said, the methodological approach here adopted is a combination of quantitative and qualitative techniques, aiming at offering a 360° analysis of patient empowerment into the Italian health system.

The quantitative part aims to confirm these findings in a statistical manner and evaluate their relevance for a wider context of healthcare performance improvements. This phase involves the examination of structured data from a survey and published literature.

The survey (*Chapter 2.2.1*) was sent to the patients to categorize how satisfied they are about the national healthcare systems of their nations, as well as how their experiences were during their usage; hoping to identify trends in how actually patients feel when forced to be getting in touch with the system. In addition, a literature review was conducted (*Chapter 2.2.3*) to collect more quantitative data. In these cases, particular attention was paid to collecting both statistical data and expert opinions, with the goal of constructing a scenario that accurately represents the current reality.

[1] Throughout this thesis, every user of the NHS — both within the Italian context and beyond — will be referred to as a '*patient*'.

The qualitative component aims to explore the role of information systems in healthcare management, examining their existing applications and potential benefits. Data for this analysis were also gathered from the survey, through subjective questions about the challenges that the patients would face when using the system, how would they react in different scenarios and what they would like to see changed in the SSN, in order to understand the underlying issues and their source (*Chapter 2.2.1*). While, regarding the healthcare providers' opinion, interviews (*Chapter 2.2.2*) were conducted, with the aim to gather more facts and opinions from different perspectives to lead to a more reliable scenario.

This study guarantees a comprehensive assessment of patient-centred healthcare [2]practices and their effect on system efficiency by combining qualitative and quantitative viewpoints. To investigate the current issues and move closer to finding answers, both quantitative data and firsthand expierence are utilized, ensuring a more trustworthy examination of the healthcare system in Italy.

2.1.1 Study design

This study has a nested design with three levels: patients, as they are the primary care service users, are nested in primary care practices, which are nested in the national healthcare system. This approach not only allows to identify and analyse the variations in patient-reported data in relation to characteristics of care provided by healthcare professionals within the national system but also enhances our understanding of patient-level factors (such as demographic), practice-level factors (like primary care practice capacities) and country-level factors (such as healthcare system characteristic).

[2] Patient-centred care refers to a model of care that respects and responds to the individual needs, preferences, and values of patients. It can be seen as a framework that facilitates patient empowerment, while empowerment is the outcome of a truly participatory and respectful healthcare relationship

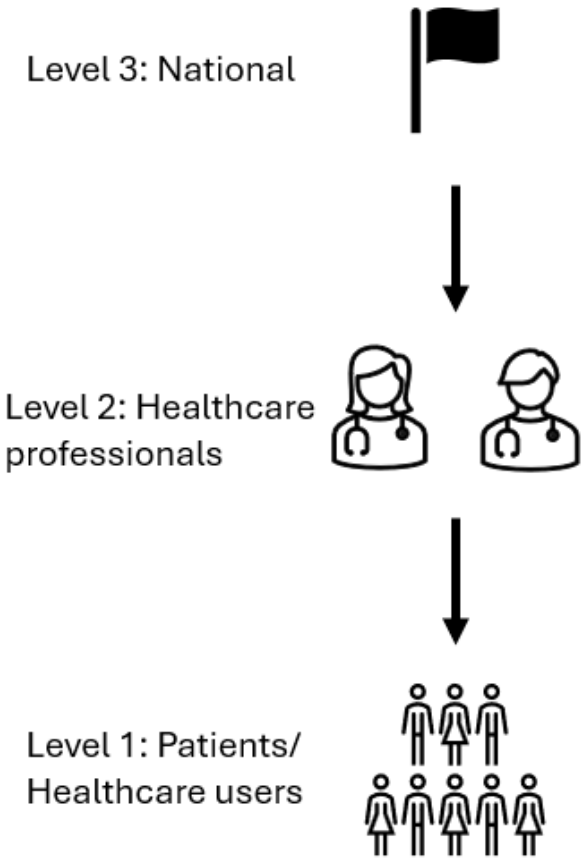


Figure 1: Visual representation of the three levels of this study.

2.1.2 Target Participants

All people who have direct interaction with the health system are the study's target participants, since their perspectives are crucial in determining the issues and assessing possible solutions. Specifically, the research involved:

- A survey sent to the general public, with an emphasis on both acute and chronic patients, in order to assess differences in care pathways and satisfaction levels between primary and emergency treatment;
- Healthcare professionals, interviewed to gather insights based on their clinical experience and day-to-day operational challenges. The sample included physicians working in both public and private healthcare settings, with different

medical specializations and varying years of professional experience. No formal exclusion criteria were applied, although every professional interviewed had, at least, two years of experience in order to ensure the relevance of their perspectives.

2.2 Data collection Methods

This study uses semi-structured interviews, a structured survey, and literature research to gather data in order to provide a thorough understanding of healthcare systems from a patient-centred viewpoint.

2.2.1 Patient survey

An online questionnaire was created with the goal of collecting both quantitative and qualitative data in order to obtain a significant number of responses in a short amount of time. This will enable a more exhaustive knowledge of patient experiences in various healthcare situations. The survey was made available in English, Italian, and Portuguese[3] and shared via a variety of internet platforms, including WhatsApp, LinkedIn, and email. The purpose of this multilingual approach was to compare perspectives arising from various national healthcare systems and to increase the diversity of participation. The Italian and Portuguese versions had more context-specific questions that provided more in-depth qualitative understanding of how each nation's health systems operated, with the Italian healthcare system remaining the primary focus of the study. The main purpose of the English version, on the other hand, was to create a worldwide perspective and aid in the gathering of general statistical data.

[3] The questionnaire was also translated into Portuguese as part of a parallel master's thesis, whose research focus will not be considered relevant for the present work.

As shown in *Figure 2*, in the survey's first part, participants were asked to self-identify their role, based on their relationship with the healthcare system. Acute patient, chronic patient[4], caregiver or next of kin, and none of the above were the possible choices. This preliminary classification improved the relevance and dependability of the data gathered by enabling the questionnaire to guide each participant through a personalized set of questions depending on their position and healthcare need.

The survey's main body included a number of important topics related to the patient journey. Participants were asked to consider factors such the length of time it took to receive a diagnosis, how often they saw a doctor, how involved they were in decisions about their treatment, and how easily accessible and understandable medical data were. Furthermore, some questions addressed the emotional aspect of treatment, examining if patients felt uneasy or confused while interacting with the system, especially when there was bureaucracy or a lack of information.

[4] The presence of chronic conditions among the survey respondents was measured via self-report. The initial version of self-assessment categories was based on a comprehensive scoping review focusing on the documentation of self-reported chronic conditions in primary care.

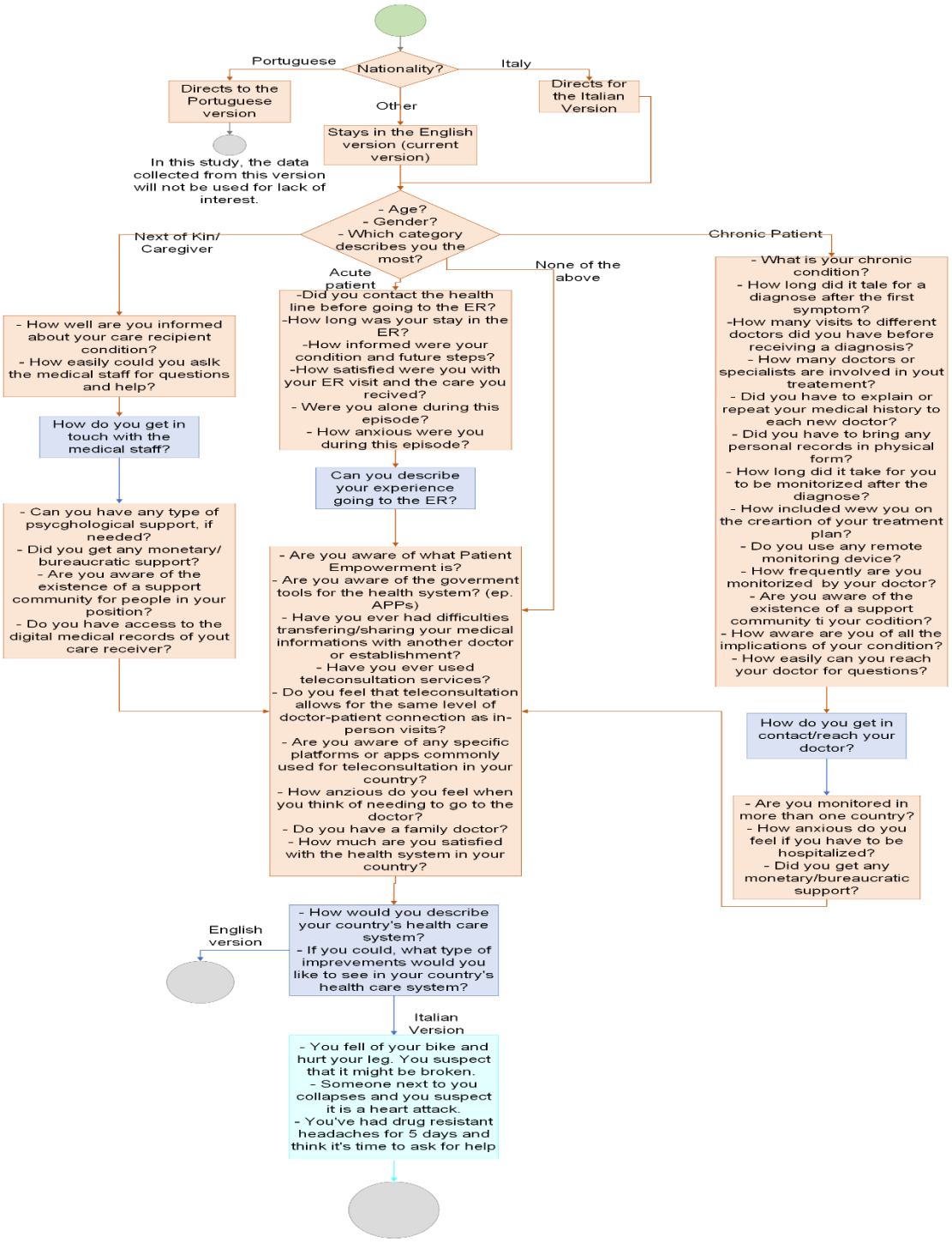


Figure 2: Flowchart representing the structure of the used questionnaire, based on patient type and exploring different aspects used in the study. The green and grey circles mark the start and the end of the form, respectively; the arrows indicate the action flow; and the orange, blue and light clue squares represent different types of questions: respectively, multiple choices responses, optional responses and optional responses in a proposed scenario.

2.2.2 Healthcare Professionals

To gather the perspectives of healthcare professionals, a one-time, semi-structured interview was conducted with the aim of obtaining a more direct and authentic view of the Italian National Health System (SSN) from those who work within it on a daily basis. This qualitative component was essential to complement the survey data, offering insight into systemic challenges and possible improvements from the prospective of frontline staff.

The interviews were conducted remotely, either via video call or normal call, depending on the participants' availability. The physicians were contacted through professional networks, institutional affiliations and direct email invitations, with the aim of ensuring a diverse and representative sample in terms of specialty and workplace.

The interview consisted of fourteen questions organized around six thematic areas (*see Table 1*), and was designed to last approximately 30 minutes, depending on the pace and depth of each respondent's contributions. The approach was flexible on purpose, in order to allow respondents to elaborate on topics they thought were significant and provide their own descriptions of their experiences.

Due to the research's emphasis on the Italian setting, the interviews were limited to Italian physicians and nurses who deal directly with patients in both the public and private sectors. This choice ensured that the data collected would reflect meaningful and up-to-date insights into the functioning of the system, as well as capture potential differences between the two types of institutions.

Table 1: Questions made to the healthcare professionals during the interviews.

Overview of the National Health System (SSN)
1. How would you describe the strengths and weaknesses of the Italina National Health System? 2. If you could make changes to the healthcare system, what improvements would you implement?

Doctor-patient Relationship

3. Do you think that the patients are actively involved in the development of their treatment plan? If not, what are the main obstacles?
4. Do you feel that you have enough time and can create a comfortable environment during a consultation to listen to and address all of a patient's concerns?
5. Do you feel that there are sometimes limitations and/or bureaucracies that hinder a better relationship between the doctors and patient?
6. On a scale from 0 to 10, how would you rate the level of health literacy among patients?

Access and Information Sharing

7. In cases where the patient requires care from more than one specialty or seeks a second opinion, do you find it difficult to share and/or access information from another department or institution?
8. Do you believe that a digital summary of the patient's medical history, allowing them to share and present their medical records across different institutions and countries, would be useful or unnecessary?

Digitalization and Health Technology

9. Have you ever used telemedicine in your practice? What are your thoughts on its effectiveness and limitations?
10. What is your opinion on teleconsultations? If so, what has been your experience with it?
11. Do you think remote monitoring devices are important tools to support patients?
12. What are the main challenges you face when integrating more digital solutions into your practice?

13. How do you assess the digital literacy of your patients, and do you think it affects their engagement in healthcare decisions?

Government Tools and Patient Support
14. Are you aware of the functionalities of the FSE (Fascicolo Sanitario Elettronico)? 15. Do you think government tools, such as the FSE, are being used efficiently? If not, do you have any suggestions for improvement?

Professional Perspective and System Improvements
16. What support tools for healthcare professionals would you like to see implemented to improve your medical practice? 17. Are there any specific policy changes you believe are necessary to facilitate a more patient-centred National Health System?

2.2.3 Literature research

A systematic literature study was carried out in order to contextualize the results that emerged from the patient survey and the interviews with medical experts. In order to promote transparency and reproducibility in the identification, selection, and assessment of sources, the review was carried out in accordance with the PRISMA framework (Preferred Reporting Items for Systematic Reviews and Meta-Analyses), which offers a standardized manner.

The literature research will be focused on understanding several key areas and aspects, being the following the main ones:

- The viewpoints and opinions of healthcare professionals regarding the difficulties they face on a daily basis and how those difficulties impact their

ability to care for their patients (also a means of validating the quality of the data collected during the interviews);

- The current state of the SSN, specifically with regard to efficiency, accessibility, and bureaucratic challenges, by examining its structure and operation, as reported by independent studies from national health institutions;
- The healthcare tools currently available to assist SSN users, such as the SSN app, telemedicine platforms, or remote monitoring devices, in evaluating their integration rates, effectiveness, and contribution to more patient-centred care.

Additionally, as shown in *Table 2,* six main keywords were identified to focus the review on the topic that were considered relevant for the goal of this research. These keywords also served to frame and refine the interview questions addressed to the medical staff. While the literature review helped inform the initial design of the study tools, it was also used afterwards to contextualize and interpret the results obtained from both the survey and the interviews.

Table 2: Research topics, key questions and keywords for the analysis of the Italian health system and person-centred care.

Patient-Centred Care	
What is it and why is it beneficial? What is patient-centred care? How does it improve health outcomes through shred decision making and holistic care?	Patient-centred care Holistic care Shared decision-making Patient empowerment Health care quality Continuity of care Person-centred medicine
Health Care (HC)	

What is health care? What are the different models and components of health care systems worldwide? What would the perfect system look like? What are the key principles and features of an ideal health care system that ensures equity, efficiency and universal access?	Health care definition Public vs. Private HC Preventive and curative care Universal health coverage Ideal health system Equity in health care Universal access Efficiency in health care Patient rights Sustainable health models Future health care

The Italian Health System (SNS)	
How is the SNS structured and managed? How is the SNS financed? What are the SNS main challenges?	National Health system Health system financing Italina health policy Ministry of health Health care decentralization Health legislations in Italy Patient patways

Primary Health Care (PHC)	
What is primary care? How is the PHC organized in Italy?	Primary health care General practice Italy

How is the PHC workforce? How is the service delivery if PHC in health centres?	Health centres Family medicine Primary care workers Access to primary care Primary care capacity

Emergency Health care (EHC)	
What defines emergency care? How is emergency care structured in Italy? What is the EHC capacity?	Emergency medical services Hospital emergency departments Urgent care Emergency response workflow Non-hospital emergency services Emergency care workforce Emergency care capacity

Challenges and Solutions	
What are the current flaws and challenges of the SNS? What are the health care professionals (HCP) complains? How do the complains reflect the issues? What reforms can be introduced to improve the SNS?	SNS challenges Waiting times Health care funding gaps SNS inefficiencies SNS inefficiencies Workforce shortages Bureaucracy in healthcare Patient dissatisfaction

What technological innovations can be introduced to improve the SNS? What legislative change can be introduced to improve the SNS? What project can be introduced to improve the SNS?	HCP dissatisfaction Health system reforms in Italy Legislative reforms SNS Digital health strategy eHealth and telemedicine Government health initiatives Policy changes Health care innovation

Some filters had to be applied, as shown in *Table 3*. And the WHO, OECD, Google Scholar, Science Direct, Eurostat, and Istituto nazionale di statistica (ISTAT) databases were chosen for the study because of their reputation and applicability to the subject, guaranteeing the most accurate and reliable data available.

Table 3: Filters applied throughout the research, organized by type value and reason of use.

Filter Type	**Filter Value**	**Reason**
Date Range	2015 – up to date	Ensures the information is not outdated, but at the same time is possible to see some developments.
Document Type	Articles, systematic reviews, meta-analyses, government reports and official publications	Ensures that the material is more credible and has higher academic importance.
Language	English and Italian	Ensures accessibility and relevance.

Publication Type	Academic journals, government publications, conference papers and health organization reports	Ensures reputable sources that provide detailed and evidence-based information.
Other		Depending on the database other type of filtering may be used.

It is important to note that, depending on the database in question, some of the filters might not be utilized, just as other ones might make sense in certain circumstances. Following the application of the filters, papers were chosen depending on whether they were read completely or partially. Duplicate or irrelevant documents were not considered (*Figure 3*).

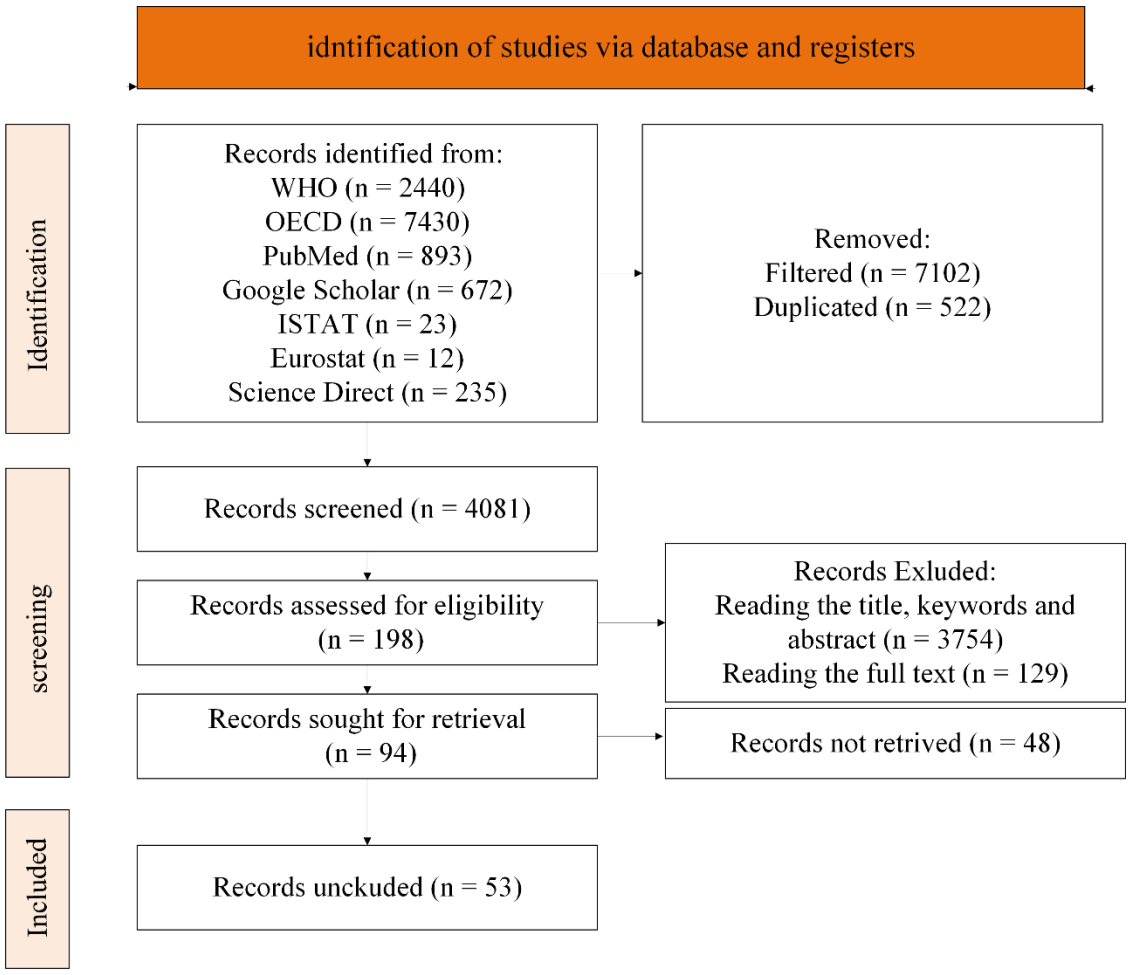


Figure 3: PRISMA flowchart showing selection of studies included in the review.

2.3 Data Analysis Methods

In this study, two tools were used for data analysis: JASP 0.19.3.0 for the statistical data obtained from the online survey and MAXQDS2024 for the qualitative data collected from open questions and interviews.

In order to represent the primary topics of inquiry, the replies from the healthcare professionals' interviews were categorized into different categories/key topics, for each question, after being subjected to a thematic analysis using MAXQDA.

The data gathered from the patient survey was separated into two categories based on the kind of question: quantitative and qualitative. JASP was used to statistically analyse the quantitative answers, enabling the discovery of patterns, frequencies, and correlations. A more nuanced interpretation of the data was supported by the thematic coding of open-ended replies where appropriate and the highlighting of recurrent keywords or phrases.

Regarding the literature review, the gathered information will be categorized into the six groups that are previously listed in *chapter 2.2.3*, *Table 2*, which correspond to the key areas explored throughout the thesis. This structure facilitates a coherent comparison between primary data and existing literature, enhancing the reliability and interpretability of the findings.

2.4 Ethical Considerations

Participants were assured of total anonymity and confidentiality during the whole data collecting procedure in order to uphold the study's ethical integrity. At no point throughout the survey or the interviews was any personally identifying information gathered. In accordance with the Declaration of Helsinki as stated in the WMA [6], raw data will not be disclosed outside of this study and will be stored securely throughout the entire study in accordance with the spirit of ethical conduct pertaining to research. The online questionnaire was completely anonymous, and no contact or demographic data that may be used to identify respondents was asked for. No audio or video recordings were created during the interviews with medical experts, and all information gathered was kept private and utilized only for study.

With that being said, by clicking *"Continue",* after reading the following disclaimer available in the beginning, the person indicates that they agree to the conditions of the interview:

"English version:

This survey is part of a master thesis research, which aims to understand the current state of the healthcare system from the patient point of view, in order to figure out it's flaws and possible solutions.

Throughout this questionnaire you will be asked personal health system related questions. No information that can trace your responses back to you will be asked.

This is a voluntary questionnaire, as so, you have the right to withdraw at any point without penalties.

This form should take maximum 10 minutes to fill out, knowing that all of the mandatory questions are fast answering questions with some open, non mandatory ones.

All of the responses will be anonymous and will only be used for this research purpose and after its ending deleted.

When pressing the button to continue you are agreeing with the terms stated above.

Please answer the questions as truthfully as possible.

Thank you."

In case of an interview, the participants agree to answer questions after hearing the informative text below:

"English version:

This interview is part of a master's thesis research, which aims to understand the current state of the national healthcare system in order to identify its shortcomings and possible solutions.

Throughout this interview, you will be asked questions about your experience and daily interactions with the system.

No information that could link your responses to your identity will be collected.

This is a voluntary interview, so you have the right to withdraw at any time without any penalties.

The interview has an average duration of 30 minutes, depending on its' progress.

All collected information will be anonymous and used exclusively for the purposes of this research. Being deleted after the study is complete. I will be the only person aware of your identity.

By agreeing to continue with the interview, you are consenting to the terms described above.

Please answer the following questions as truthfully as possible."

The disclaimer clearly explains the study's purpose, the nature of the questions, the voluntariness of responses, the right to withdraw at any time, and how the data will be managed.

Chapter 3

Results

In this chapter, the results obtained through the mixed-methods approach adopted will be presented and analysed.

The first section is a breakdown of the survey responses, first offering an international perspective, and then focusing on the Italian context, in order to have a comparative reading of how patients from different health systems perceive and experience care, while also highlighting the specific challenges faced within the Italian National Health System (SSN). Next, the chapter presents the analysis of the interviews with Italian healthcare professionals, in order to confirm, contrast or expand on the patient data. Finally, the findings of the literature review will be carefully described in the last section of this sub-chapter.

Following, in *Chapter 1.1,* the findings outlined will be evaluated in relation to the existing literature and the broader objectives of the study.

3.1 Surveys

The examination of the patient feedback on their expectation and experiences must first be placed in the context of several limitations.

The first one is related to sampling. All patients were volunteers and recruited through a number of different methods from one nation. Thus, while the sample is diverse by key characteristics of the area and relatively large by number of respondents, the results cannot be generalized to a large, statistically representative sample. Another limitation pertains to the type of data collected. All components of the patient feedback are self-reported, including their memory of what services they received from their healthcare team.

Given these warning, the patients' feedback was generally consistent regardless of their geographic area and type of clinic providing services (e.g. public or private care).

3.1.1 International Overview

The international survey had 182 responses coming from different countries (majority coming from Portugal and Italy). The population that responded was mainly (50.7%) between 19 and 30 years old, immediately followed by a 21.13% of 31-45 years old. The population of respondents were divided in four selected categories, from the most common to the least: None of the Above (40%), Acute Patient (35%), Chronic Patient (18%) and Next of Kin (7%).

82% of the participants responded that they are not aware of what '*patient Empowerment'* is, likewise 43.66% of them are also not aware of the existing tools implemented by the government to improve a patient-centred healthcare system. More specifically, regarding telemedicine, most of the participants (64.08%) don't know about

any apps or tools used, 69.72% of them never had a tele-consult and the 81.69% feel that virtual visits lack the same personal connection as in-person appointments.

In general, as for the level of satisfaction with the NHS, on a scale from 0 to 5, 48% evaluated it with 2 and 3 (satisfied/good), another 28% of them with 0 and 1 (very bad/bad) and the last 27% with 4 and 5 (very good/excellent).

To analyse the two open questions, some keys words were chosen as shown in *Figure 4*.

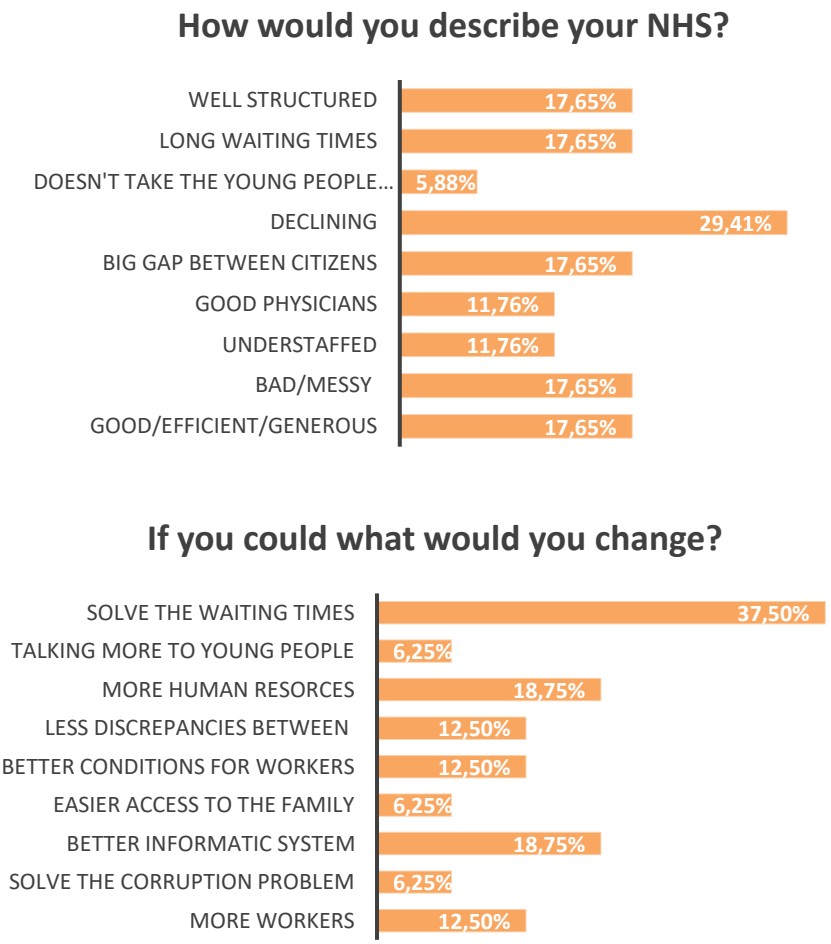
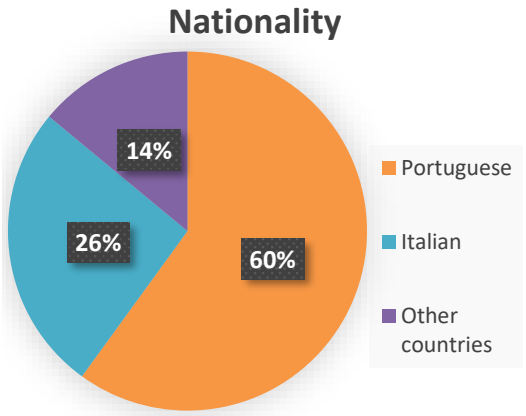


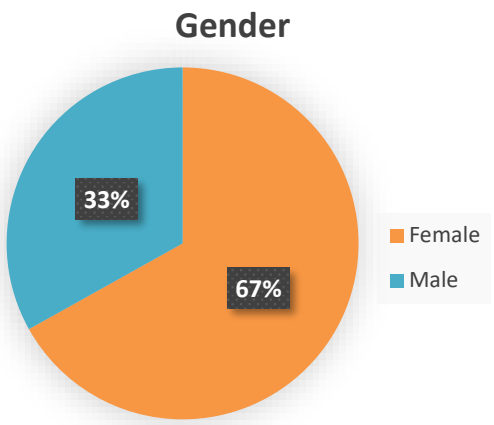
Figure 4: Results from open-ended questions answered by non-Italian and non-Portuguese participants: description of their NHS (on top) and suggestion of improvements (on the bottom).

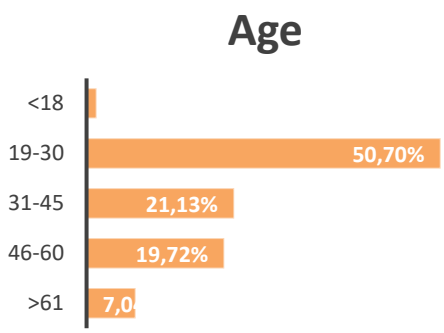
The most common description of the NHS was 'Declining' although some said it is 'Good' and 'well Structured'. When asked about the changes they wanted to see

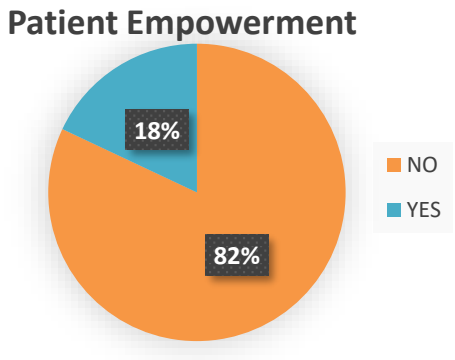
implemented, most responded with ‘solve the waiting queues’, secondly, they asked from more human resources and also better informatic systems.

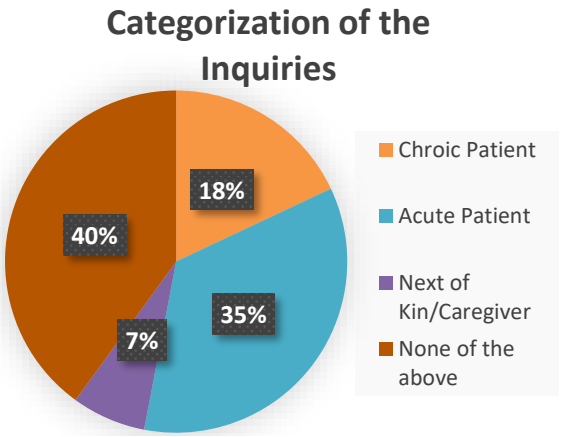
In the following graphs present a visual representation of the statistical answers.

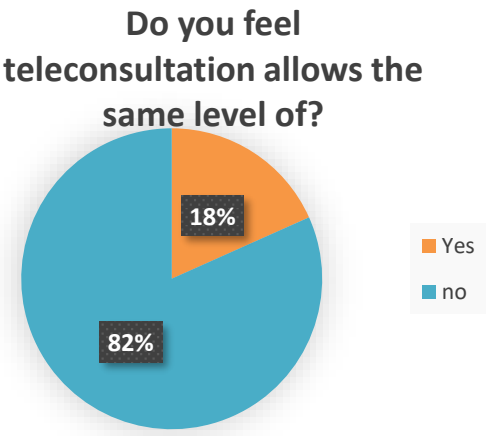












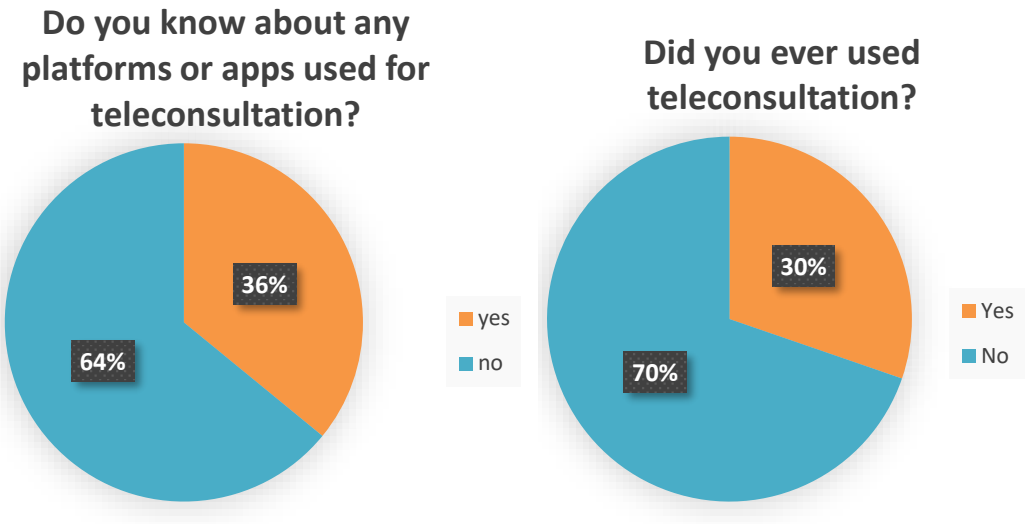


Figure 5: Overview of the results of the main survey with 182 participants.

3.1.2 National Overview

Focusing now on the Italian survey, the majority of participants were around the age 19-30 (80%) years old, followed by a 10% of over 61 years old, while no participant was under 18 years old. Most responses came from the female population (82,5%).

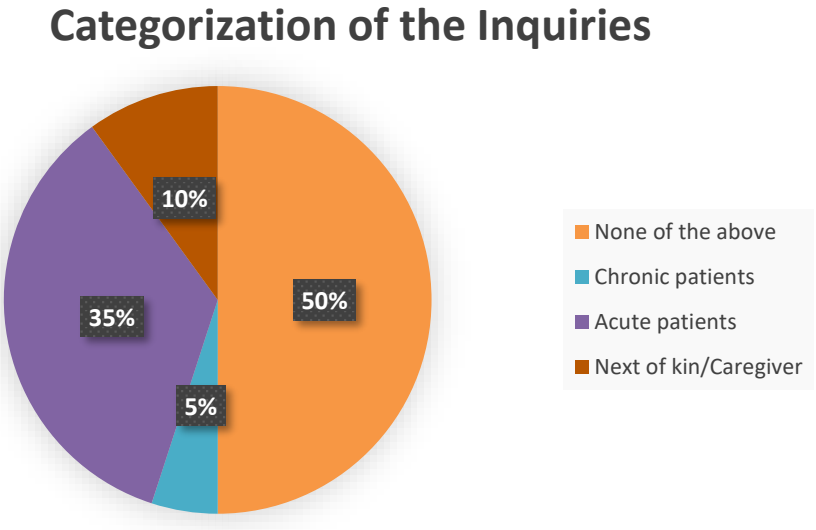


Figure 6: Pie graph representing the responses of the participants regarding the categories of patients.

In *Figure 6* is possible to observe all the four categories represented.

3.1.2.1 Chronic Patient

Moving on to the chronic category, evenly people got diagnose one year (50%) and 2 years (the other 50%) after showing the first symptom. In most cases (63,41%) they had to visit more than one doctor/institution and 32,55% of them had to carry around with their medical history on the paper form (see *Figure 7* for reference).

When asked how much they engage in the development of their treatment plan, in a scale from 0 to 5, 67,54% choose 'almost not involved/a bit involved' (1 and 2), while 32,46% selected' very involved/completely involved' (4 and 5). Similarly, when asked how informed they are about their condition, 53,81% choose 3 ('sufficiently informed'), 37,19% choose 5 ('very informed') and the remaining 9% choose 2, stating therefore that they were just a bit informed.

About the economic support, all the respondents stated that they didn't receive any or they were not aware they could've received any.

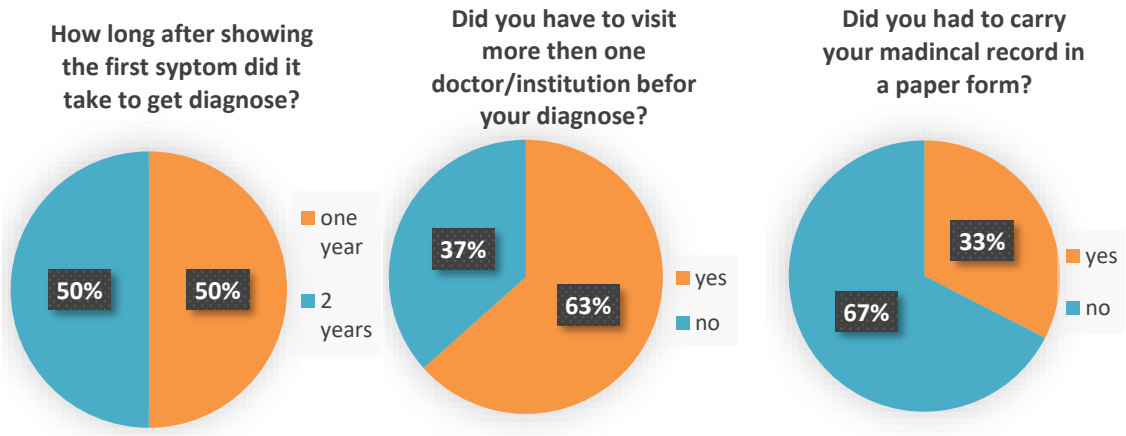


Figure 7: Graphs representing the results form the question regarding the chronic category. The graph in the middle displays how long it took for the patient to get diagnosed after the first symptom, the graph in the middle displays if it took them more than one visit/hospital to get diagnosed, and the graph on the right shows the results regarding if the patients had to carry their medical records in paper form.

3.1.2.2 Acute Patients

Turning our attention now to the questions addressed to acute patients, all of the respondents stated that they contacted the health line (118) before going to the Emergency Room. As shown in *Figure 8*, 64,3% said they had to wait almost two hours before being visited, 14,2% stated that they had to wait for more than two hours, another 14,2% stated they waited around 90 minutes, and the last 7,1% waited around 30 minutes.

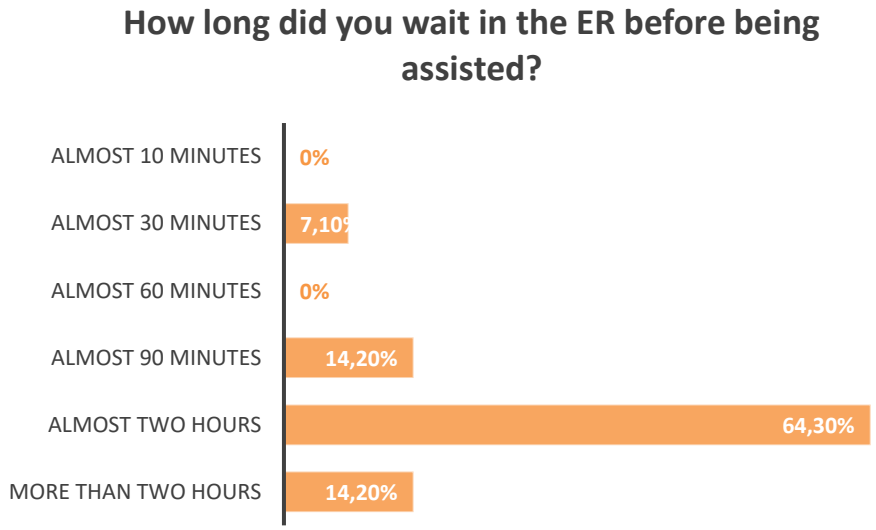


Figure 8: Waiting times experienced in the ER by the Patients before being assisted.

In this case as well, participants were asked about their level of information regarding their condition. A total of 35.7% reported feeling sufficiently informed (rating 3), while, both at, 21.4% indicated being either not informed at all (rating 0) or very well informed (rating 4). Additionally, 14.3% stated they were only somewhat informed (rating 2), and the remaining 7.1% reported being poorly informed (rating 1).

In *Figure 9* are presented the results of the question regarding how long, overall, was the staying in the ER.

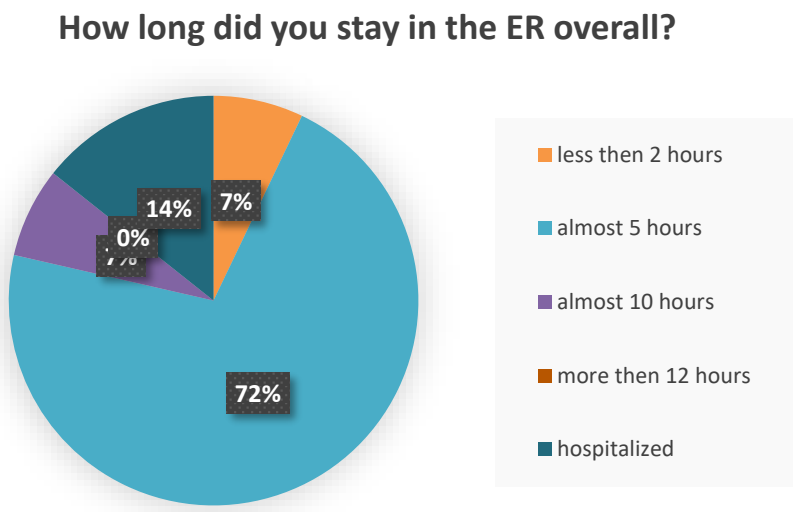


Figure 9: Results of the overall staying in the ER.

The respondents were also asked to briefly describe their visit on the ER, and all of them highlighted the long waiting times even in serious cases:

'I was brought to the Emergency Department by ambulance following a minor road accident. I was admitted with a yellow code and had to wait many hours — longer than I would have expected, especially considering the potential risk of spinal injuries. The waiting time was reduced only after being reclassified as a red code due to a suspected allergic reaction to the painkiller. Overall, the facilities were inadequate for the number of patients present, many of whom had to wait for hours despite having serious injuries, leading to tensions among patients.' (open response from the survey).

However, despite these concerns regarding long waiting times, when asked how satisfied, on a scale from 0 to 5, they were with the care received in ER, 50% of them responded with a 3 ('satisfied'), 14,3% stated that they were 'very satisfied' (4), while another 14,3% stated that they were 'not satisfied'. Evenly at 7,1% stated that they were eighter 'not satisfied at all' (0), 'a bit satisfied' (2) or 5, 'very much satisfied'.

3.1.2.3 Next of Kin/Caregiver

Considering now the Next of Kin questions, when asked how informed they are about the condition of their person in care are, all of them responded with 'very informed' (4) or 'very well informed' (5). However, when asked about how easily they could contact medical professionals and ask specific questions, the majority (75%) replied with a 2, stating that 'it is not that easy', while the remaining 25% rated it at 0, stating that it is very difficult.

Moreover, 75% of the respondents admitted that they do not have access to the medical record of their person in care, while all of them never received any kind of economic, bureaucratic, and psychological support.

3.1.2.4 General Questions

The question presented in this category were presented to everyone, including the 'None of the Above.'

3.1.2.4.1 Multiple choice questions

As shown in *Figure 10*, almost all the respondents (75%) don't know about *'patient Empowerment'*, 70% of them aren't aware of any tools of the SSN (e.g. APPs), another 62,3% found some difficulties transferring their medical records from one physician/institution to another, 72,5% responded negatively when asked if familiar with any telemedicine tool.

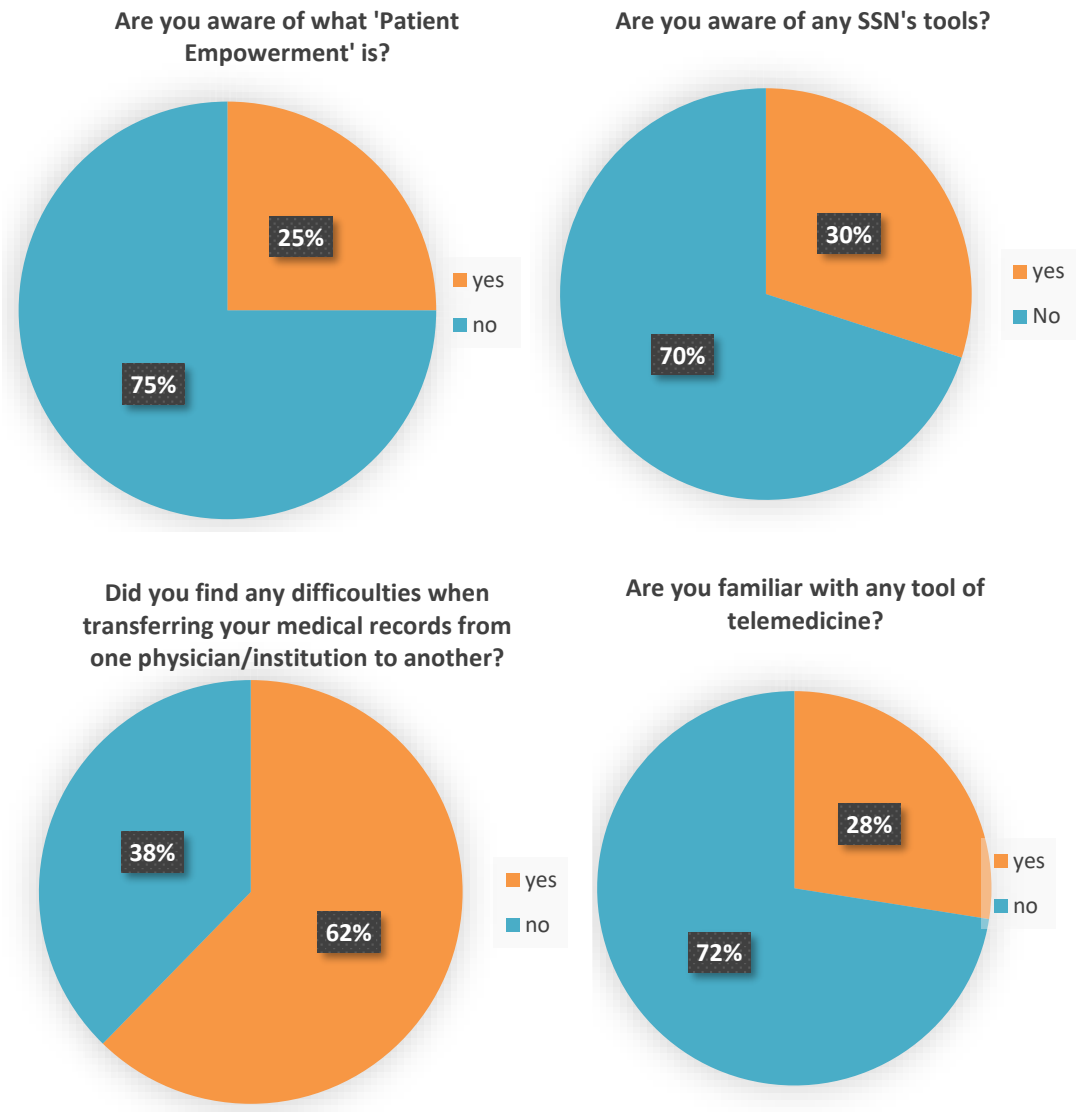


Figure 10: Overview of the results of the multiple-choice questions in the Italian Survey.

Even though 5% of them feel 'very anxious' (rating 5) when dealing with a physician or when they have to go to an hospital, 50% of the respondents stated they 'don't feel anxious' (rating 1) or they feel 'just a bit of anxiety' (rating 3).

Overall, the SSN satisfaction rate, on a scale from 0 to 5, was rated at 3 ('satisfactory') by 40% of the respondents, 30% of them rated it at 2 ('not satisfactory'), 15% said it was 'very satisfactory' (rating 4), 10% rated it as 1, and only 5% rated it as 'not satisfactory at all'.

3.1.2.4.2 Open, non-mandatory questions

In the open, non-mandatory questions the respondents were asked how they would describe the SSN and which types of improvement they would like to see implemented. To attend a significant analysis, some keywords were selected leading to the results shown in the graphs below.

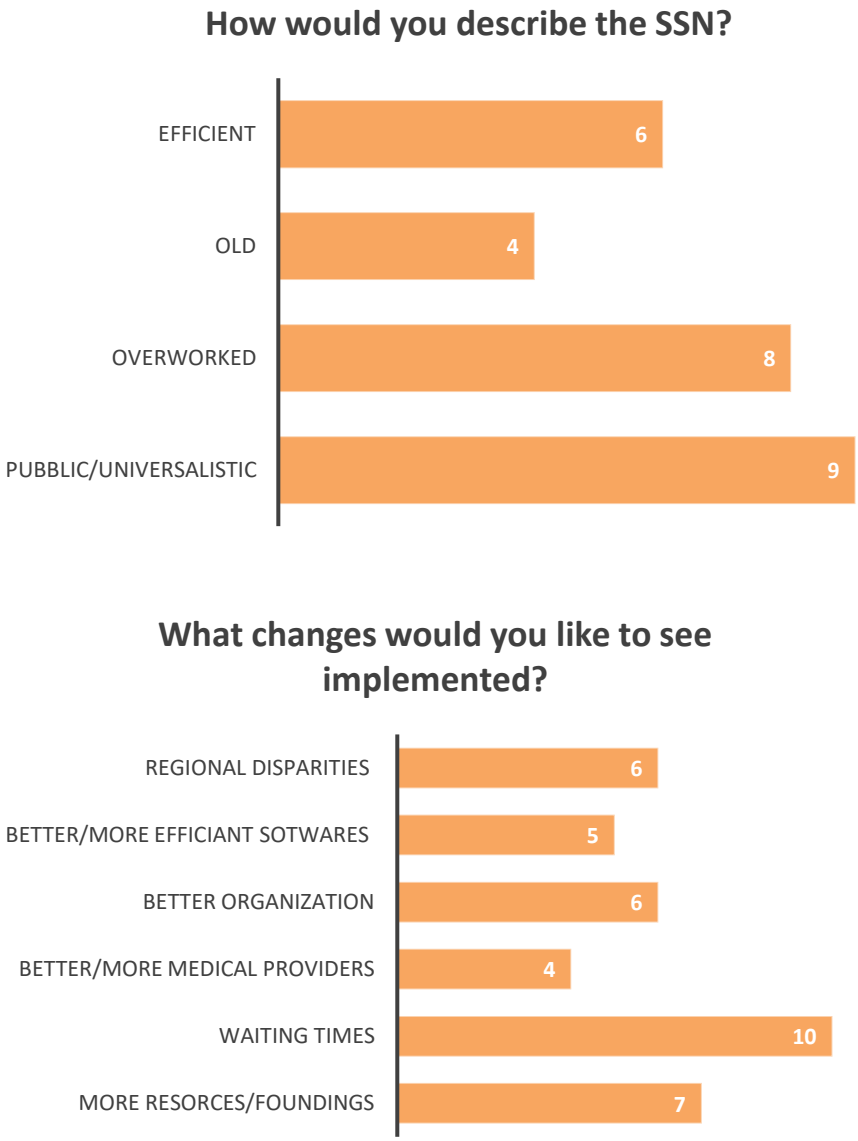


Figure 11: Responses of the Italian survey when asked about the SSN. On the graph on top are represented the general way to describe to describe the SSN, on the second graph the potential changes are presented.

Additionally, three scenarios were presented, and the respondents were asked to explain how they would proceed in each one of them:

- *'Scenario 1: You have just fallen off your bicycle and injured your leg. You suspect it might be broken. Describe all the steps you take from the moment of the accident until you are seen by a doctor in the emergency department.'*
  All of the respondents said they would call the emergency number (118), then proceed to do the triage and go to the emergency department.
- *'Scenario 2: You are with someone who suddenly collapses, and you suspect they are having a heart attack. Describe all the steps you take to help them.'*
  Again, all of the responses were univocal. They stated to call the 118 and follow their direction of first aid, while waiting for the ambulance.
- *'Scenario 3: You have been experiencing a headache for five days and believe it is time to seek help or professional advice. Describe all the steps you would take to ask for help.'*
  Even in this case, all the responses were the same: calling the family doctor in order to understand what to do and, eventually, scheduling an appointment with a specialist.

3.2 Interviews

The interview responses were analysed using a qualitative coding framework, which allowed for the identification of recurring themes and the organization of content into main categories. This section presents, for each question, a synthesis of those insights. In total, 11 healthcare professionals were interviewed.

3.2.1 Overview of the National Health System (SSN)

When asked to describe the main strengths of the National Health System (SSN) (see *Table 1*), over half of the respondents (54.5%) highlighted the public, free and universal

nature of the system, noting that it guarantees access to healthcare services regardless of income or social status. Additional strengths included the geographical coverage and ease of access to service (27.3%), the overall high quality of care provided (9.1%), and the value of interdisciplinary collaboration among colleagues (9.1%). The frequency of which each strength was cited is shown in the following graph (*Figure 12*).

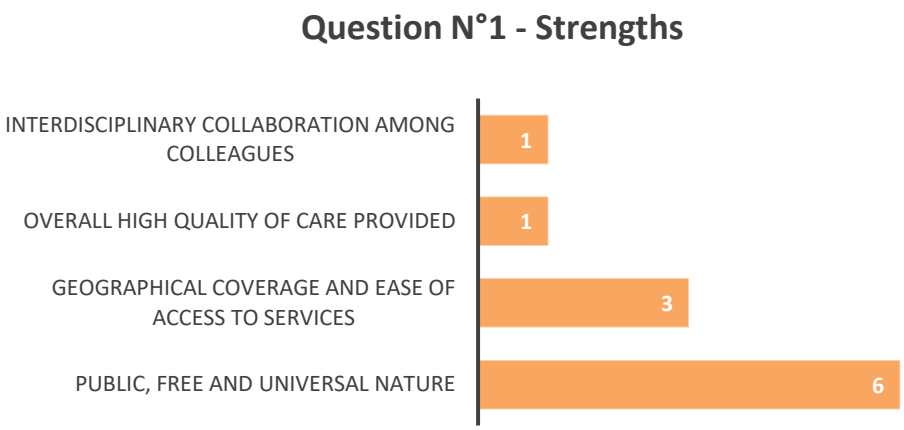


Figure 12: Bar graph of the strengths of the SSN according to the health professionals.

On the other hand, when asked about the weaknesses of the SSN, many more recurring topics were identified (see *Figure 13*):

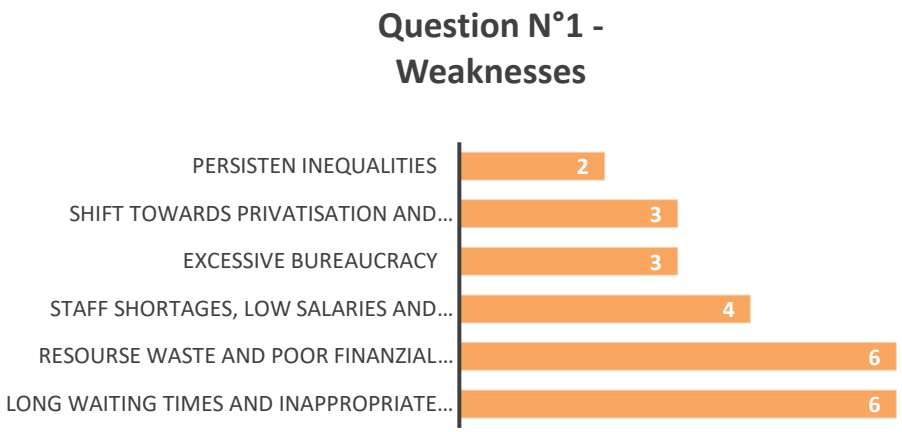


Figure 13: Bar graph of the weaknesses of the SSN according to the health professionals.

These weaknesses were not described as isolated issues, but as deeply interconnected. For example, staff shortages were seen as a direct consequence of poor working conditions and insufficient funding, which fuels burnout of doctors and migration to the private sector. Likewise, waste of resource and long witing times were often (62,5%) associated with the burden of unnecessary procedures, sometimes attributed to legal aspects or system fragmentation.

When asked to suggest potential improvements to the current healthcare system, interviewees provided a wide range of proposals regarding the structural, organizational and cultural challenges of the SSN.

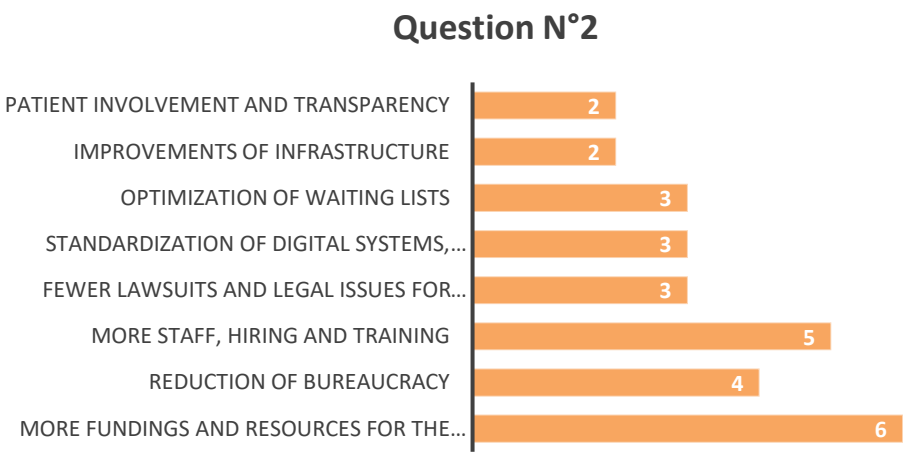


Figure 14: Bar diagram of the responses regarding the second question.

The most frequently mentioned need, indicated by 19.4% of the respondents, was to increase public fundings and resources. This was often linked to the declining attractiveness of the public sector in comparison with private providers and to the difficulty in maintaining adequate infrastructure and staff retention under current budget constraints:

'Public healthcare is underfunded. If we want to preserve universal access, we need to give more value to the people who work in the system.' (Hospital physician)

Closely following, 16.1% of interviewees stressed the need to hire more staff, improve recruitment processes and ensure better training and ongoing education for healthcare workers. According to them, understaffing not only limits services delivery but also increases stress and reduces the quality of care.

As shown in *Figure 14*, other proposals included:

- Reducing bureaucratic burdens (12.9%), which were seen as a major obstacle to efficiency
- Improving digital integration and standization of software systems (9.7%)
- Introducing or reinforcing health education among patients (9.7%), to improve compliance, reduce inappropriate access to services and promote shared decision-making
- Implementing better legal protection for physicians (9.7%), as fear of malpractice lawsuits was often mentioned as a factor that contributes to over-treatment and resource waste
- Optimizing waiting lists and triage systems (9.7%)
- Investing in healthcare infrastructure and regional centres of excellence (6.5%)
- Enhancing patient involvement and promoting transparency in clinical and organizational process (6.5%)

3.2.2 Doctor-Patient Relationship

When asked whether patients are adequately involved in planning and managing their own care, the majority of healthcare professionals interviewed expressed critical views.

61.5% cited the lack of time and staff:

'We barely have time for clinical task, let alone discussing every step of care with each patient. The system just isn't structured for it.'

Therefore, due to chronic understaffing and heavy workloads, professionals reported not being able to dedicate the necessary time to communicate effectively with patients or explaining therapeutic options in detail[5].

Furthermore, 46.2% of the professionals stated that patient involvement is often insufficient due to a lack of empathy or communication training among clinicians. Some professionals admitted that they had not been adequately prepared to engage patient in meaningful discussions or to adjust their language and tone based on patients' levels of understanding:

'Sometimes we don't know how to speak with patients, and we weren't really trained to do so. This creates distance.'

23.1% pointed out that patient involvement depends on the individual physician, making the process highly inconsistent and not systemically guaranteed. Finally, 15.4% mentioned that patients with chronic conditions receive comparatively more attention and involvement, as their care paths tend to be longer and more complex, requiring more dialogue and coordination.

As a result, when asked about the main barriers that hinder communication with patients (*question 5*), the most cited obstacle (35.7%) was the presence of cultural barriers, particularly related to the use of medical terminology and a lack of adaptation to patients' language and literacy levels:

'Doctors aren't trained to adapt their language. Most patients don't understand what we say, but we don't even realise it.'

21.4% of responses pointed to time constrains and excessive workload as significant barriers, echoing what emerged in the previous questions. The pressure to manage many patients in limited time windows often leads professionals to prioritise efficiency over dialogue. This is also linked, as 14.3% stated, to the fear of legal repercussions, which

[5] The issue of time available to communicate with patients and explain therapeutic options (*question 4*) has already been addressed in responses to *question 3.*

discourages open and flexible communication. In some cases, this anxiety results in overly formal or defensive interactions, which can increase patient mistrust or confusion. Bureaucracy was also mentioned by another 14.3% of participants, as strictly linked to the limited time windows, because seen as a factor that turn attention away from direct interaction with the patient. The time spent on administrative documentation and data entry was perceived as reducing the focus on human connections. Finally, again, the lack of specific training in communication was highlighted by this 14.3% of interviewees

Healthcare professionals were then asked to rate the level of health literacy they observe in their patients on a scale from 1 to 10 (*question 6*). The answers revealed a widespread perception that patients generally possess low levels of understanding when it comes to medical information, procedures and system navigation. In fact, as shown in *Figure 15,* half of the respondents (50%) rated patient health literacy around 3, describing it as very low, saying that many patients struggle to grasp even basic health information, which complicates diagnosis, adherence to treatment plans and shared decision-making.

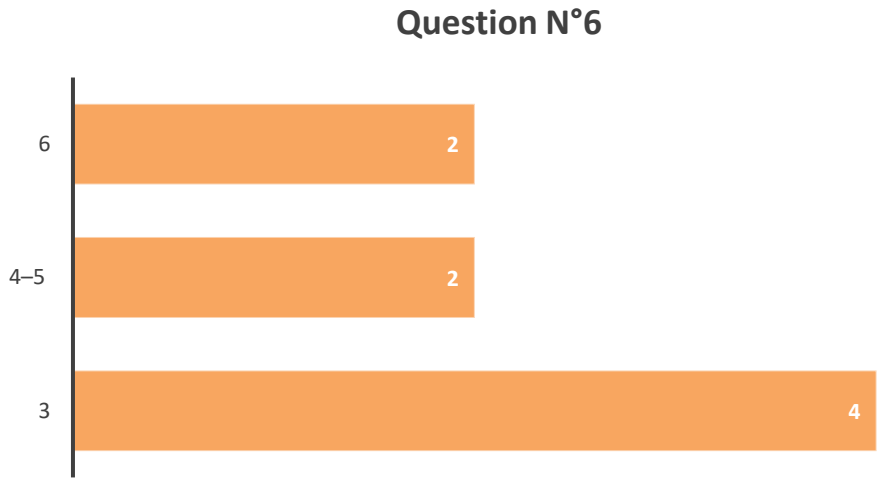


Figure 15: Bar diagram showing distribution of health literacy ratings attributed to patients by healthcare professionals.

Another 25% gave scores between 4 and 5, indicating patients may understand some concepts but are easily confused by medical terminology or overwhelmed by complex care processes. The remaining 25% rated patient literacy around 6, suggesting a moderate

level of comprehension. These professionals acknowledged that while access to online resources (such as google and health forums) can sometimes empower patients, it can also lead to misinformation and overconfidence.

3.2.3 Access and Information Sharing

When asked whether they encounter difficulties in sharing or accessing patient information across different departments or healthcare facilities, the 40% of respondents reported several difficulties linked to the continued reliance on paper-based documentation. They reported that, this reliance on physical records, severely limits both the speed and accuracy of information transfer, especially in urgent or multidisciplinary context.

Another 20% of respondents noted that the degree of digital integration and information sharing varies significantly depending on the specific facility or region. While some hospitals have adopted internal digital systems, these often do not communicate with external structure, meaning that patient information cannot be accessed outside of the original institution. A further 20% not only stressed this general concept but highlighted also the incompatibility of systems and coding languages between different departments within the same hospital. These inconsistencies frequently result in duplicated tests, increased workloads and waste of resources especially when transferring patients across regional borders.

Some physicians (13.3%) acknowledged that digital systems can be incredibly useful when properly implemented. However, they also expressed frustration over the poor application and maintenance of such systems, which often fail to reach their full potential due to lack of training or technical support.

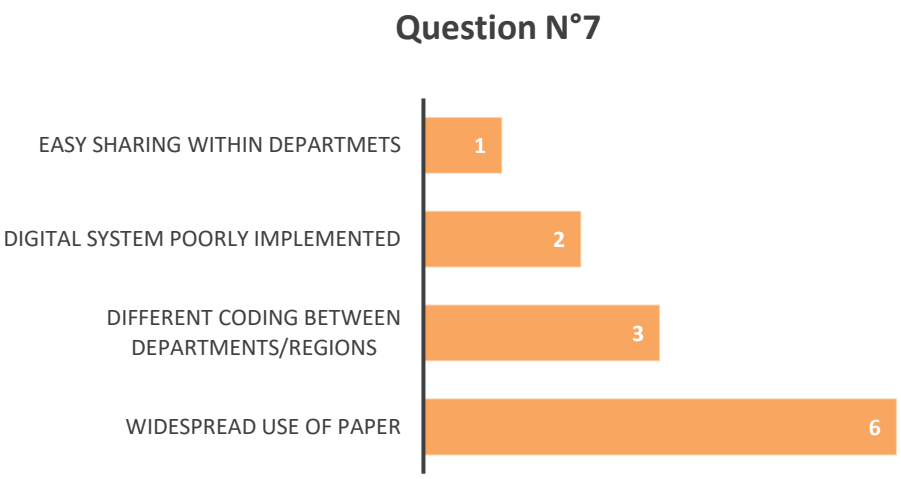


Figure 16: bar diagram summarizing the min issues reported in patient information sharing across departments and facilities.

As shown in *Figure 16*: bar diagram summarizing the min issues reported in patient information sharing across departments and facilities., only one respondent mentioned a positive experience with internal data sharing, stressing that information exchange within their department worked well, even though broader interoperability remained an issue.

When asked whether a digital patient summary would be a useful tool in their clinical practice, all of the interviewees responded in an affirmative way stating that such a resource would be very useful or even essential to improve continuity of care and reduce redundancies. Several professionals (53.8%) noted that a centralized, easily accessible summary of a patient's medical history could save time, avoid unnecessary repetition of test and provide safer care, especially in emergency cases or when the patient is unable to communicate:

'A digital summary would save us at least an hour when a patient comes in unconscious or confused. It would also prevent us from repeating tests and, therefore, reduce resource waste.'

However, at least 30.8% of the professionals sated that such tools are currently poorly adopted in their workplace and, despite recognizing the value, the actual application of these systems remains inconsistent across regions and facilities.

3.2.4 Digitalization and Health Technology

One of the themes explored in the interviews was the use of telemedicine and teleconsultation in daily clinical practice. Responses revealed a consensus on the potential usefulness of digital tools, but also highlighted significant limitations related to infrastructure, investments and professional attitudes.

16.7% of professionals reported that telemedicine is not currently used or available in their working environment, particularly in private practice or underserved regions. In some cases, it was mentioned as a project under consideration, but still far from implementation. An additional 16.7% noted that telemedicine can be particularly effective when used as a triage tool, helping to reduce access pressure on emergency rooms and to direct patients more appropriately based on their symptoms.

However, some concerns were also raised. Around 11.1% of respondents expressed those digital consultations can weaken the doctor-patient relationship, reducing empathy and the ability to capture non-verbal cues. Other (11.1%) stressed that teleconsultation is especially valuable among specialists, who can collaborate remotely, but noted that such collaborations often remain informal or between friends. Finally, 11.1% of participants pointed to cultural and technological barriers, such as digital literacy among patients or resistance among older professionals, as important obstacles to wider adoption[6].

The following question (*Question 12*) aimed to explore the main barriers that healthcare professionals encounter when trying to integrate digital solutions into their practice.

The most frequently mentioned issue (27.8%) was the lack of financial resources, including insufficient funding for digital devices, lack of updated software and the

[6] As for the answers of *questions 10* and *11* (see *Table 1*) largely overlapped with the options on telemedicine expressed in the previous section, the data have been incorporated there to avoid repetition.

absence of a ununified implementation strategy. Many professionals reported working with obsolete or incompatible systems, often without adequate technical support:

'The systems we use are outdated, and there's no uniformity. We just don't have the right tools – or the funding – to make digital integration possible.'

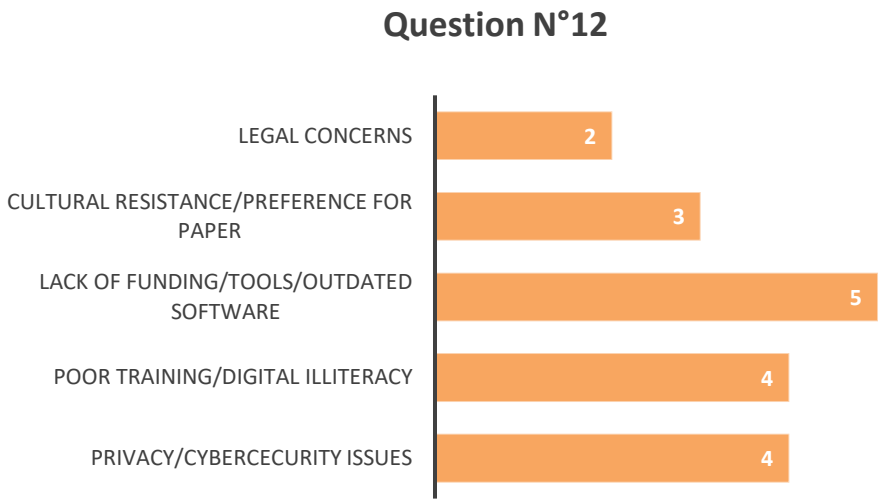


Figure 17: bar graph showing the main barriers to digital health integration.

Tied at 22.2%, two other significant obstacles were cited:

- Lack of proper training and digital literacy, both for healthcare professionals and administrative staff;
- Privacy and cybersecurity concerns, particularly in relation to data breaches, patient confidentiality and unclear legal frameworks. These concerns were especially strong among those who had experienced poor digital implementation in the past.

16.7% of respondents highlighted a persistent cultural resistance, especially among older staff who continue to prefer paper-based documentation. This attitude was

sometimes reinforced by a perceived lack of digital competence or fear of change. Finally, 11.1% of participants brought up legal obligations as a major barrier.[7]

3.2.5 Government Tools and Patient Support

To further understand the state of digital integration in the Italian Healthcare system, professionals were asked about their awareness and use of two important digital health tools: the Fascicolo Sanitario Elettronico (FSE) and the International Patient Summary (IPS).

The most common response (41.7%) was that these tools are known but not used in clinical practice. While many professionals are aware of the FSE as a concept, they reported rare or no actual interaction with the system in their daily routines:

'I know what the FSE is, but I've never used it. It's not part of our workflow.'

A similar comment applied to the IPS, which was sometimes mentioned as a useful internation solution, particularly for cross-border care or migrant patients, but largely unfamiliar in practice.

Another 33.3% recognized the utility of these tools but emphasized that they are poorly disseminated or insufficiently integrated into routine operations. This was attributed to lack of institutional promotion, fragmentated technological infrastructure and inconsistent implementation across regions. Concerns about privacy and cybersecurity were raised by 16.7% of participants. Finally, 8.3% of interviewees admitted they did not know these tools existed underscoring the need for better communication and training around digital healthcare.

3.2.6 Professional Perspective and System Improvements

[7] The responses of *question 13* has been excluded from the analysis, as not pertinent to the objectives of this study.

To conclude the interview, participants were asked which tools they would like to see implemented to improve their medical practice (*question 16*) and which policy or legislative changes they believe would most effectively contribute to a more patient-centred healthcare system (*question 17*).

The most common proposal, indicates by the 33.3%, was to increase public investment and improve resource management. Many professionals expressed mismanaged and emphasized the need for better oversight and equity in the allocation of resources across regions. 25% of participants called for the integration of health education into school curricula and broader public health campaigns to raise awareness among patients. Some of the interviewees (16.7%) proposed also to reduce bureaucratic burdens and simplifying processes, another 8.3% highlighted also the need to ease the legal liability pressure on physicians, which many feel discourages open communication and increases defensive medicine practices. Finally, all of them indicated the need to update digital infrastructure and software, particularly to ensure compatibility and usability across systems.

3.3 Literature review

Given the diversity and complexity of the subject, this sub-chapter aims to provide a comprehensive and in-depth review of the literature on the evolution of patient-centred care models, to better understand the current landscape, clarify conceptual ambiguities, identify effective practices as well as major challenges highlighted in recent research, and also study how it is integrated into healthcare policies and developments at both European and national levels.

More in details, four sections are presented. The first section focuses on what defines patient-centred care and how it is implemented, while the second paragraph explores the concepts and models of healthcare. The third section investigates the Italian healthcare system and the structure and performances of primary care and emergency services.

Finally, the last section addresses the challenges that the current national healthcare system is facing, and the solutions, tools, and policies proposed to move toward a more inclusive, accessible, and patient-oriented healthcare.

3.3.1 Patient-Centred Care

In order to enable patients to abandon their passive status and take a more active role in making decisions regarding their health and quality of life, the idea of patient empowerment was established. The international attention that patient empowerment has today was made possible by a number of regulatory reforms over the past few decades. The WHO has developed guidelines that emphasize that patients' voice should be heard, underlining how this approach highlights also other values such as human rights, dignity, non-discrimination, participation, and equity, and aims to create a holistic and responsive system that addresses individuals [9].

However, despite their widespread use, the terms *'patient empowerment', 'patient participation'* and *'patient-centeredness'* have been buzzwords in research literature, without specific meanings, and it is unclear how they connect to one another. A systematic literature review is, therefore, conducted with two main goals: to clarify the conceptual boundaries of patient empowerment and identify common theorical models; and to compare studies that share similar research questions with this thesis. This allows for a more informed discussion about the strengths and limitations of patient empowerment, and how it contributes to a wider paradigm shift toward value-based and people centred healthcare systems.

3.3.1.1 Definitions and Key concepts

The research of the keyword *'patient empowerment'* highlighted the lack of a univocal definition, it is considered to a be a very complex and it is situated at several levels according to the perspective that it approaches: micro (the patient), maso (the healthcare provider) and macro (the healthcare system).

This leads to different interpretations, for instance, it can be seen as a theory, a process, an intervention, an outcome or a paradigm. In fact, several authors define patient-empowerment as an enabling process that can be facilitated by providing tools, techniques and support ad in self-management interventions [16]. According to the European Patient Forum, [12], the empowerment philosophy is based on the assumption that in order to be healthy, people must be able to effect changes not only in their personal behaviour, but also of their social environment and the organizations (e.g. hospitals) that influence their lives. A successful empowerment process can occur when patients come to terms with their threatened sense of security and identity [13], Therefore, through interaction with their healthcare providers, patients can develop a new perspective by reframing and reinterpreting their illnesses, which in turn leads to better adjustment to their long-term condition [14]. A sense of gaining more control over their lives and of inner strength are other valuable results [15].

Research using the keyword *'patient participation'* shows that it is used interchangeably and synonymously with *'patient involvement'*. Just like patient empowerment, the concept of patient participation is used at different levels: micro (individual care), meso (service development, education and training of healthcare providers, etc) and macro (policy). [15]

The first assumption is being informed, and the information that is exchanged has to be meaningful, understandable and individually adapted [15]. Education and support for patients is thus essential, and, moreover, healthcare providers need to develop a positive attitude towards patient participation. In general, this participation process, requires activation of both the healthcare providers and patients, and includes several types of action and several methods, such as shared decision making, taking part in focus group, etc. [16]

Depending on the context, communication between the patient and the caregiver is regarded as another central antecedent of patient-centeredness [15]. Therefore, several studies focus on patient-centred communication, by improving healthcare providers' general communication skills (comprehending verbal and non-verbal behaviour) [16].

The value and essential characteristic of patient-centred care are empathy, listening and treating patient with dignity and respect, and reading them as individuals [9]. It is shown that a caring environment has great impact on the operationalism of patient-centeredness [12]. And finally, the literature review shows the importance of coordination and continuity of care [15].

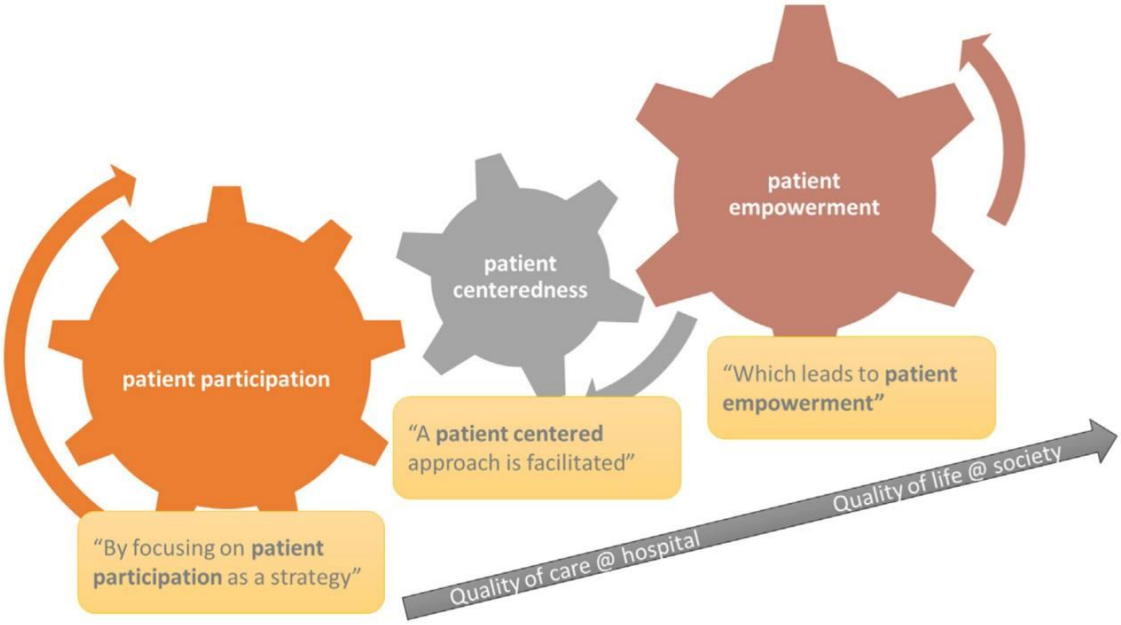


Figure 18: Process model for concepts of patient empowerment, patient participation and patient-centeredness. [16]

Figure 18 shows the correlation between the concepts *'patient empowerment'*, *'participation'* and *'patient-centeredness'*. I can be concluded that patient empowerment is a broader concept than just patient-centeredness and patient participation. Patient centredness can be seen as an antecedent of empowerment while patient participation can be often seen as a strategy to achieve a patient-centred care, which in turn can promote patient empowerment. [16]

In conclusion, in line with the Ottawa Charter, [7], and based on the above analysis, the key concepts that surround patient empowerment all revolve around an individual and collective core principle:

'An empowered patient has control over the management of their condition in daily life. They take action to improve the quality of their life and have the necessary knowledge, skills, attributes, and self-awareness to adjust and to work in partnership with others where necessary, to achieve optimal well-being.

Empowerment interventions aim to equip patients (and their caregivers whenever appropriate) with capacity to participate in decisions related to their condition to the extent that they wish to do so; to become 'co-managers' of their condition in partnership with health professionals; and to develop self-confidence, self-esteem and coping skills to manage the physical, emotional and social impact of illness in everyday life.'

as described in the EMPATHIE study [17].

3.3.1.2 Empowerment in Practice

Self-management is one of the most partible components of patient empowerment, especially when it comes to chronic illness. It refers to the proactive role that people take in managing their health in day-to-day activity, including goal setting, symptom monitoring, treatment adherence and behavioural modification. [18]

To enable this, healthcare systems must go beyond clinical interventions and offer structured self-manageable support, which may include access to educational resources, support programs and collaborative core planning. [19]

Self-management support empowered patients by providing them with tools, knowledge and emotional reinforcement. It changes the care model to one that is centred on co-production, in which the patient participates completely in decision-making rather than just receiving information. Support for the self-management therefore serves as the cornerstone upon which patient autonomy and long-term health results are defined. [19]

Simultaneously, the ability to go through eHealth environments is becoming more and more dependent on digital health literacy [20]. It includes the capacity to look for, retrieve, assess and use health data from online sources [20][21]. A patient's capacity to self-manage and take part in treatment choices may be greatly improved by having

confidence while utilizing digital tools like patient portals, telemedicine platforms and smartphone applications. For example, access to personal health records and test results can reduce uncertainty and promote more meaningful interactions with professionals [22].

However, the rise of digital technologies also brings new challenges. Misinformation and disinformation circulating online can undermine trust in healthcare institutions and promote unsafe behaviours [22]. Furthermore, data from the OECD PaRIS program, [5], demonstrates that digital engagement is not fairly distributed, with older people and those with lower educational attainment being far less likely to find primary care websites user-friendly.

To evaluate how person-centred care impacts health systems, the OECD, [11], has developed a framework that includes then key indicators derived from patient-reported data. These are divided into five outcome indicators (covering physical, mental and social health, well-being and general self-assessed health) and five experience indicators, such as confidence in self-management, care coordination, patient-centredness, perceived quality and trust in health system. [11]

The OECD ha also proposed a broader conceptual framework to support the transition towards people-centred care. This includes five core dimensions:

- *Voice*: the inclusion of citizens in health policymaking processes.
- *Choice:* the ability to access and select providers freely.
- *Co-production*: participation in one's own health management.
- *Integration*: continuity and coordination of services across providers and settings.
- *Respectfulness*: the assurance that care is dignified, fair and person specific.

[11]

Among these, '*integration*' is particularly critical. When healthcare services are fragmented, patients often experience conflicting medical advice, duplicate tests, or disjoined transitions between levels of care [23]. This fragmentation can cause stress,

inefficiency and safety issues. In contrast, integrated and coordinated care ensures that all professionals involved are aligned improving outcomes and reinforcing trust. [24]

Evidence shows that patients who perceive their care as person-centred consistently report better physical and mental health, as well as greater overall well-being. This effect is especially marked in people with chronic conditions, who benefit most from care that is continuous, respectful and tailored to their needs. [25]

3.3.2 Concepts and Models of Modern HC

The idea of healthcare has seen an intense change in recent years, moving from a purely biological and disease-focused paradigm to a more expansive and dynamic vision that takes into account social, psychological, environmental and behavioural factors. Today's health systems strive to prevent disease, encourage well-being and include people as active participants in their own health journeys rather than just diagnosing and treating patients. [15]

A major turning point in this evolution was marked by the 'Ottawa Charter for Health Promotion', adopted by the World Health Organization (WHO) in 1986, [7]. In this fundamental document *'health'* is defined as *'a resource for everyday life, not the objective of living'*, emphasizing, therefore, the importance of empowerment, equity and community involvement. The Charter sets five key action areas:

1. Building healthy public policy.
2. Creating supportive environments.
3. Strengthening community action.
4. Developing personal skills.
5. Reorienting health services.

These principles have deeply influenced how modern health systems are designed, placing emphasis on prevention, education and people-centred approach[8]. People are increasingly viewed as active participants who can make educated decisions and help control their own health, rather as passive receivers of care. [10]

3.3.3.1 The Ideal Healthcare Model

Although health care structures differ from nation to nation, there is a general agreement on the essential traits that a high-performing health system should have, especially among international organizations like the World Health Organization, [9], and the Organization for Economic Cooperation and Development (OECD), [11]. The WHO Constitution offers the foundational definition of health as *'a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity'* and affirms that *'the enjoyment of the highest obtainable standard of health is one of the fundamental rights of every human being'* [9].

Therefore, building on this vision, an ideal health care system is one that provides:

- Universal and equitable access to services, regardless of socioeconomic status, geography or background.
- High-quality care, based on scientific evidence and best practices.
- Financial protection, minimizing out-of-pocket costs and avoiding catastrophic health spending.
- People-centeredness, respecting patient values, preferences and autonomy.
- Integrated and continuous care, especially for patients with chronic conditions.
- Efficiency and sustainability, ensuring optimal use of resources.

[8] According to the World Health Organization, people-centred care is defined as an approach that *'puts people and communities, not diseases, at the centre of health systems'*, and that respects individuals' preferences, needs and values while ensuring that they guide all clinical decisions. [10]

- Responsiveness and transparency, including public accountability and participatory decision-making.
- Health promotion and disease prevention, not just treatment.

These elements are often captured in the notion of value-based healthcare, which seeks to align care delivery with outcomes that truly matter to patients [35], while also optimizing the use of financial and human resources. [10] [35][36]

3.3.3 The Italian Healthcare system

The majority of the Italian population has high standard of living and quality of life resulting, in part, from well-established health policies and welfare measures. Prior to the outbreak of COVID-19, well-being and sustainability indicators showed generally positive performance, although regional inequities. [11]

3.3.3.2 Organization

The Italian SSN is regionally based and organized into three levels: national, regional and local. It is highly decentralized, with most of the legislative and executive powers assigned to the regional level of governance with the central government taking on a stewardship role. In fact, the central government is responsible for defining health policy strategy, the national benefits package and the per capita budget, although this decision making is undertaken in collaboration with regions. [26]

Meanwhile the SSN planning system occurs both through national and regional programming. In the past the main tool for national planning was the National Health Plan (NHP), which outlined the core principles and values of the healthcare system, along with the SSN's overall goals and strategic priorities for quality improvement, research and evaluation of efficiency and effectiveness. A key component of this system is the national benefit package (LEA), which plays a crucial role in guiding planning processes, setting priorities and ensuring equity. More recently, however, following the progressive process of decentralization, Italian policy makers have gradually given way to planning

tools that allow for more integrated governance between the central and the regional levels. [26]

3.3.3.3 Health Expenditure

According to the Global Health Expenditure Database, in 2019, [3], health expenditure is Italy represented 8.7% of the country GDP (Gross Domestic Product). Moreover, the national ISTAT data, [2], show that, over the past decades, public health spending in Italy has varied significantly. From 2000 to 2010, it grew at an average annual rate of 4.1% but slowed to just 0.9% between 2011 and 2019. While, on the other hand, private spending has increased more consistently, with an average annual growth rate of about 2.1%. [2]

These differences are also quite important through the region, mainly because of founding [37]. Additionally, the financial flows due to the mobility of the patients seeking care outside their region of residence also impact on regional differences in per capita health spending [26].

Overall, the last decade was dominated by a cost containment strategy adopted at the national level and implemented by regions and SSN organization. However, while these plans were effective in regaining control over expenditure, they also created concern about negative impact on the quantity and quality of service delivered to citizens. [26]

3.3.3.4 Patient Pathways

The concept of patient pathways, also referred to as Percorsi Diagnostico-Terapeutico-Assistenziali (PDTA), plays a fundamental role in organizing care around the specific needs of patients, especially those affected by chronic or complex conditions. These pathways are structured and multidisciplinary care plans designed to ensure continuity, appropriateness and quality of care across different settings and professions. [26]

Italian typical patient pathway is presented in *Figure 19.*

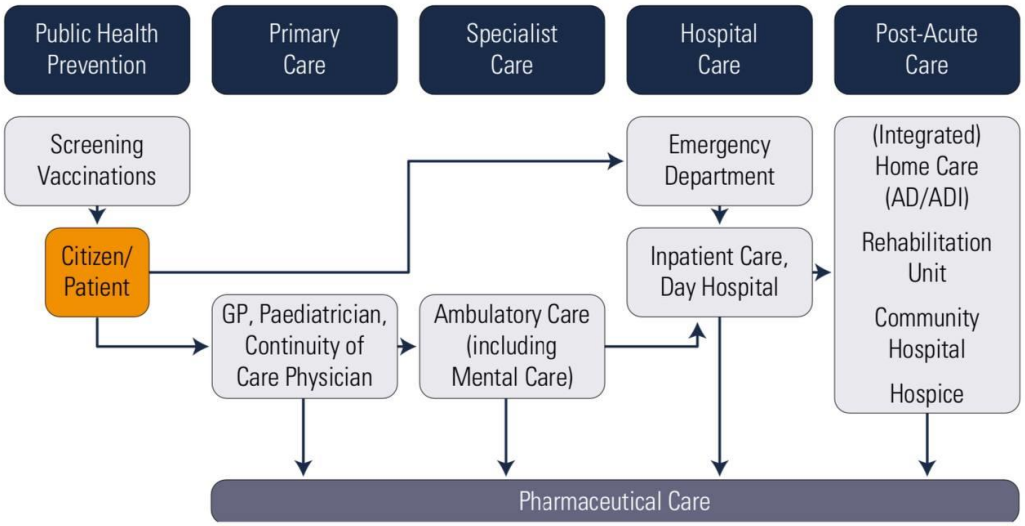


Figure 19: Typical patient pathway within the SSN. [26]

For non-urgent needs, the first point of contact is the GP (general practitioner), or the paediatrician in case of children. They offer an office-based service that is available during the week. In predefined hours and, in case of out-of-hours need, continuity-of-care providers provide assistance. [27]

For urgent needs, remote assistance and free ambulance service to the nearest hospital are provided by calling the emergency number (118). Italy is planning to introduce the 116 117 European number that will provide first contact with the SSN and sort patient to access the most appropriate level of care. In practice, emergency departments, which should receive only genuinely acute cases, are often the first point of contact with the SSN at night, during weekends and even during regular working hours. [27]

Meanwhile, the bookings are made by patients themselves, through a local or regional telephone number, pharmacies, or at dedicated points such as Single Appointments Centres (Centri Unici di Prenotazione, CUP). CUPs offer several options in terms of type of provider (public or private) and, therefore, waiting times and where to be treated. This, of course, refers to patients under the SSN coverage, while patient who are out of the SSN can bypass the GP and directly book, and pay, a private appointment independently. In such cases, the specialist can be chosen, and the waiting times is much shorter. [28]

3.3.3.5 Primary Health Care

Defined by the World Health Organization as a whole-of-society approach to health and well-being, primary health care (PHC) is centred on the needs, preferences and values of individuals, families and communities. It is delivered as close as possible to people's everyday environment and aims to foster long-term, trust-based relationships between patients and healthcare professionals. PHC is intended not only as the first point of contact with the healthcare system but also as a strategy to ensure continuity, coordination and integration of care over time. [9]

In Italy, primary health care represents a cornerstone of the Servizio Sanitoario Nazionale (SSN). It is mainly delivered through general practitioners (GPs) and family paediatricians, who are contracted with the SSN and provide care free of charge. Their role is to monitor health status, manage chronic conditions, promote prevention and coordinate referrals to specialists or hospital care. [26]

In the last decade, Italy's primary care system has been marked by three main interrelated structural and organizational trends. First, there have been attempts to strengthen the role of GPs and paediatricians through the creation of aggregate forms of primary care and integration with other professionals working in the area. Second, the use of more advanced IT has allowed for more integration of care between GPs with other professionals through data and knowledge sharing. Thirdly, central and regional governments have promoted more involvements of primary care in preventive activities, including tailoring health interventions on the basis of patients' risk profiles and being more proactive with patients. [29]

However, as shown by the OECD, [29], and the European Commission, [11], the progress towards integrated model of care is still slow and heterogenous, due to the lack of implementation at the regional and local levels. Furthermore, resistance to change is common and often justified on the basis of reduced proximity for patients, therefore, despite progress, most GPs in many regions still work in solo practice with limited opportunities to share knowledge with other colleagues and no access to diagnostic technologies. Moreover, because several retirements and few hirings, the number of GPs

has declined over time, while their workloads are increasing due to population aging, increased prevalence of chronic conditions and consequent burden on caregivers, who increasingly are seeking assistance from GPs for psychological support. [11][29]

3.3.3.6 Emergency Health Care

Emergency care is provided free of charge to everyone, except in particular cases[9]. This has led to a progressive increase in emergency admissions, many of which are due to inappropriate use by patients (i.e. for minor illnesses or conditions that could be treated within primary care) and has contributed to driving up costs and increasing inefficiencies, such as longer waiting times. [29]

There is a 24-hours nurse-led triage system, in order to evaluate the patient's level of urgency, with assessment resulting in the assignment of a priority code, as shown in *Table 4*.

Table 4: Priority codes under the emergency triage system

Code	Treatment access
1. Red code 'emergency'	Immediate access to a medical intervention.
2. Yellow code 'urgent'	Access to treatment within 10-15 minutes.
3. Blue code 'deferrable urgency'	Access to treatment within 60 minutes.
4. Green code 'minor urgency'	Access to treatment within 120 minutes.
5. White code 'non-urgent'	Waiting time over 120 minutes.

The patient's pathway through the health emergency system starts with the health alarm system, equipped with a free telephone number (118) which ensures the

[9] When it is believed that the use of such care is not justified as an emergency.

coordination of all interventions in the reference area and activates the hospital's response 24 hours a day. [30]

Emergency facilities that are available include:

- First aid points, fixed or mobile, organized in tourist locations and during major sporting, religious or cultural events.
- Emergency rooms (ERs), which provide diagnostic tests and any other interventions required to complete treatment, or to guarantee the patient's stabilization.
- DEAs which have all necessary operating units and ensure a quick and complete response.

In general, regions adopt different organizational models for emergency care. [31]

3.3.4 Challenges and Solutions

Based on the literature reviewed, several recurring and systemic challenges emerge within the Italian National Health System. These issues affect both the organization and delivery of care, and they pose significant obstacles to achieving equitable, sustainable and person-centred healthcare [10].

The *Table 5* below summarises the most pressing flaws identified, [11][29], which are further explored in the following sections along with potential solutions and tools.

Table 5: main challenges of the Italian SSN

Challenge	Description
Regional inequalities	Uneven access and quality of care between northern and southern regions.
Underfunding	Healthcare expenditure is below EU average, growing out of pocket costs.

Hospitals overload and access to services	Inadequate primary care leading to unnecessary hospital admissions and ER visits.
Weak continuity of care	Poor coordination between hospitals, GPs and community services.
Digital fragmentation	Low adoption of electronic health records and limited telemedicine interoperability.
Shortage of medical and nursing staff	Severe shortage of doctors and nurses, worsened by upcoming retirements, burnout, unfavourable working conditions and migration abroad.
Long waiting times	Delays in access to diagnostics, specialist visits and elective procedures, pushing patients towards private healthcare.
Bureaucratic inefficiencies	Complex governance structures, slow innovation uptake and uneven performance.

3.3.4.1 Future Developments

In response to these critical issues identified within the Italian National Health System, recent years have witnessed important changes in the areas of prevention and hospital care as well as in rationalizing the national benefits package (LEA). For instance, in the framework of the EU Budget 2021-2027, the European Commission has introduced the Next Generation EU, and each Member State has to present a package of investments and reforms: the NRRP. [29] [37]

The Italian plan for recovery has six missions and the last one, ‘Mission 6: health’, is made up of two components:

- Proximity networks, facilities and telemedicine for community care.

- Innovation, research and digitalization of the SSN.

[26]

The aim of the first component is to strengthen primary and community care by creating a vast and widespread infrastructure of facilities. More generally, it calls for a renovation of primary and community care to provide patients with more human and accessible care where they live, reserving the role of hospital only for acute care [26]. These new facilities require staff and other resources to become operational, however, one major challenge for the SSN is the need for personnel, due to the shortage of doctors and nurses. [11]

Implementing the NRRP has also put the focus on task-shifting. The Italian regulatory framework on the division of tasks among health professions (e.g. factors, nurses, pharmacists) is obsolete and does not reflect changes in technologies and professional training. [29]

The second component of the NRRP (explained in further detail in the following sub-chapter) aims to upgrade the technological assets of the SSN [29]. Here, the focus is on digital health, medical equipment and biomedical research.

3.3.4.2 Health System's Tools

The New Health System (NSIS) was introduced in 2003 and is the primary tool for measuring quality, efficiency and appropriateness of care, supporting national and regional governance and monitoring expenditure [32].

For the past decade, Italy has been working on the implementation of electronic health records (EHR), called *'Fascicolo Sanitario Elettronico' (FSE)* which include all clinical records, preventive diagnostic assessments and all elements of a patient's health history, and the information in each citizen's EHR is provided and managed by the regions. [33] [4]

However, *Figure 20*: Percentage of citizens who uses the Electronic Health Record per region. [34] shows that, the implementation remains fragmented, and only minority

of people have heard of it, despite the fact that it is currently active in all regions, but its full potential still needs to be operationalized as only 18% of the population actually uses it. [34] [28]

Figure 20: Percentage of citizens who uses the Electronic Health Record per region. [34]

Chapter 4

Discussions

As the results show, despite growing efforts to promote patient empowerment, the Italian health system continues to face a series of systemic challenges that hinder progress. These barriers are not only structural and organizational but also cultural, technological and communicative in nature.

This section aims to critically interpret these findings, highlighting areas of tension between policy intention and reality of patient experience, as perceived by both healthcare users and professionals.

To do so, the discussion gathers evidence from three complementary sources: survey data, expert interviews and existing literature. The literature guided the design of the interviews and survey, ensuring consistency. Moreover, comparing the literature with empirical results allows for a conceptual framework and a critical evaluation of how

theoretical ideals align, or diverge from the realities experienced by both healthcare users and professionals in the Italian health system.

4.1 Underfunding, Paternalism and Regional Inequalities

The findings from both the surveys and the interviews paint a clear picture of the structural and organizational barriers that hinder patient empowerment in the Italian healthcare system. These challenges are deeply systemic in nature and reflect a multilayered set of dysfunctions, from macro level under fundings and regional disparities to frontline operational issues such as insufficient staffing, long waiting times, and ineffective communication. The empowerment of patients cannot be isolated from these systemic inefficiencies, as it is intimately dependent on the structural, organizational and cultural scaffolding of the system in which care is delivered.

At the root of many observed obstacles lies, clearly. a sustained and systemic underinvestment in the Italian healthcare system. Italy has seen a steady containment of public health expenditure, particularly in personnel costs, over the last two decades. This trend is especially concerning when placed in a European context: Italy is one of the few countries in the EU where real wages for healthcare professionals have actually declined, a fact that undermines morale, retention and the ability to attract talent.

Even more critically, this containment of public spending has not translated into a reduction in overall healthcare costs. On the contrary, total healthcare expenditure has continued to rise, but in a way that shifts the burden onto citizens through increased private and out-of-pocked spending. This dual trend – reduced public investment and rising private costs – on the long run, contributes to inequality, exclusion and region fragmentation, ultimately eroding the foundations of a universal and equitable system such as the SSN.

This financial containment is not applied uniformly across the national territory. As the interviews and literature clearly highlight, regional disparities remain one of the most critical issues affecting healthcare delivery in Italy. Regions with historically stronger

infrastructures and budgets (e.g. those in the north) continue to provide comparatively better services than their southern counterparts. The nurse-to-doctor ratio for example, varies significantly by region, as does the availability of community-based services [3]. These disparities are not merely administrative, but they represent concrete obstacles to empowerment, as patients in under-resourced areas face poorer access to timely, coordinated and high-quality care.

These regional imbalances are exacerbated by persistent and growing shortage of healthcare personnel, particularly nurses. Professionals participating in the study frequently expressed frustration with being overwhelmed by both clinical duties and bureaucratic tasks. They described the work environment characterized by fatigue, rush and limited time for reflection and meaningful dialogue with the patients.

This overload is symptomatic of a system that lacks strategic workforce planning. Over the past two decades, Italy failed to invest in structured hiring and training pathways for key healthcare professions. Additionally, this has created bottlenecks that are difficult to justify in a country that is still facing high unemployment rates.

As a result of this personnel shortage, both patients and professionals report time as a critical barrier to effective care. As highlighted in *Chapter 3.2.2* healthcare professionals acknowledged being chronically overburdened, often overwhelmed by a dual burden of clinical responsibilities and administrative duties. Simultaneously, patient frequently expressed frustration with long delays in accessing services (*Chapter 3.1.2*), that left them feeling neglected and anxious.

Communication challenges further compound this dynamic. One significant problem hindering communication between patients and clinicians is the use of complex medical terminology which many patients, especially those with lower educational backgrounds or elderly patients, find difficult to understand. Moreover, on the professionals' side, many acknowledged the lack of training on patient participation and communication, and, also, the presence of power imbalances between doctors and patients. Qualitative feedback revealed that patient often encounter a top-down model of care where choices

are dictated rather than co-developed. This is an explicit manifestation of the persistent paternalistic culture, where healthcare professionals, often unconsciously, retain control over the care trajectory, diminishing the patient's autonomy, in contrast with international recommendations that call for shared decision-making.

The problem, therefore, is not just linguistic, but more relational and cultural. To overcome these imbalances, doctors should establish a relationship with their patients, and lower their language, supporting the patients' preferences in healthcare. On the other hand, patients should try to be more informed and concerned about their own health and care.

4.2 The Role of Digitalization and Prospects of Change

Another recurring theme was the lack of digital infrastructure to support continuity of care and information sharing. The absence of a unified and interoperable Electronic Health Record system was frequently cited as a missed opportunity, that hinder the interoperability between healthcare providers, especially in different regions. Both patients and providers criticized the inefficiency of having to repeat tests and reconstruct medical histories from scratch, or request documentation from multiple sources. This not only creates administrative delays but also undermines the use of resources and frustrates the efforts of both clinicians and patients.

The digital modernization of the SSN began only recently and in a fragmented way. Although the process was formally launched with the Ministry of Health's guidelines on the Fascicolo Sanitario Elettronico in 2011, real progress came only later, with several investments – especially thanks to the PNRR. Yet the actual implementation remains uneven. A national strategy has been defined (notably with the FSE 2.0, [34]), but regional disparities in digital infrastructure persist. Several regions have developed their own systems, with poor interoperability. Furthermore, only a minority of healthcare

facilities are aligned with the FSE 2.0 specifications and, as shown in the results, users report limited or no access to their digital health data. [4][28]

On the European level, the situation is evolving rapidly: with the incoming European Health Data Space (EDHS), digital health rights for patients will be harmonized. Nevertheless, Italy still faces a gap between declared intentions and practical implementation.

Despite this limited landscape, both patients and professionals see potential in digital tools. They are interested in platforms that facilitate communication, allow easy access to health records and support shared decision-making. However, when systems are poorly designed or insufficiently integrated, they create frustration rather than empowerment. Moreover, disparities in digital health literacy, especially among older and less educated populations, worsen inequities and limit the transformative power of digital innovation.

There are significant opportunities to enhance primary care by expanding the use of care plans, improving care co-coordination, promoting digital literacy and offering more accessible digital tools. Strengthening these areas can lead to more seamless integration of healthcare services and empower patients to play a more active role in their care process. Additionally, improving the interoperability of electronic health records can help unlocking the full potential of digital systems, making healthcare more efficient and connected. Improving co-coordination of care requires more robust mechanism for communication across providers, alongside investments in training for healthcare professionals to deliver person-centred care effectively. Policy makers must also prioritise digital inclusion to ensure that all patients, regardless of age or education level, can benefit from advancements in health technologies.

Moreover, efforts must be made to support patients through education and digital health literacy programs. Therefore, accessible health information is essential for a more person-centred experience. The SSN should prioritise the provision of written health materials, both digital and printed tailored to diverse literacy levels and cultural contexts. In addition, they should expand funding and training for healthcare providers to deliver

comprehensive self-management programmes, including the provision of curated and high-quality health information.

Policy maker should mandate training for primary care providers on shared decision-making techniques, focusing on engaging patients in their own care. Financial incentives can encourage practices to prioritise patient-centred approaches, ensuring that care plans reflect patient preferences and promote active participation in health managements. Integrating such practices into primary care models will empower patients, particularly those with chronic conditions, to manage their health more effectively.

Data also show low utilisation and inconsistent communication regarding care plans, with significant gaps between patient and provider reports. Healthcare systems should mandate the development and use of personalised care plans for patients with chronic conditions, and policies should promote clear communication about care plans to ensure that patients understand and value their purpose. National guidelines for care planning should be developed, ensuring that all primary care practices implement and communicate plans clearly to patients. Regular surveys of patients and providers can help identify gaps in care planning and facilitate targeted improvements to bridge the communication divide.

A comparison between the survey and the interviews reveals a notable degree of coherence. Patients expressed frustration with long waiting times, lack of involvement in decision-making and difficulties in accessing their health information, themes that were echoed by healthcare professionals, who cited time constrains, digital fragmentation and communication challenges. These finding also align with the literature, which consistently points to structural underfunding cultural paternalism and insufficient digital infrastructure as barriers to patient empowerment. Nonetheless, the survey also revealed some gaps not fully captured by the interviews, such as the emotional distress and anxiety experienced during interactions with the system, highlighting the importance of incorporating the patients' emotional experience as a critical dimension of future analyses on empowerment and patient centred care.

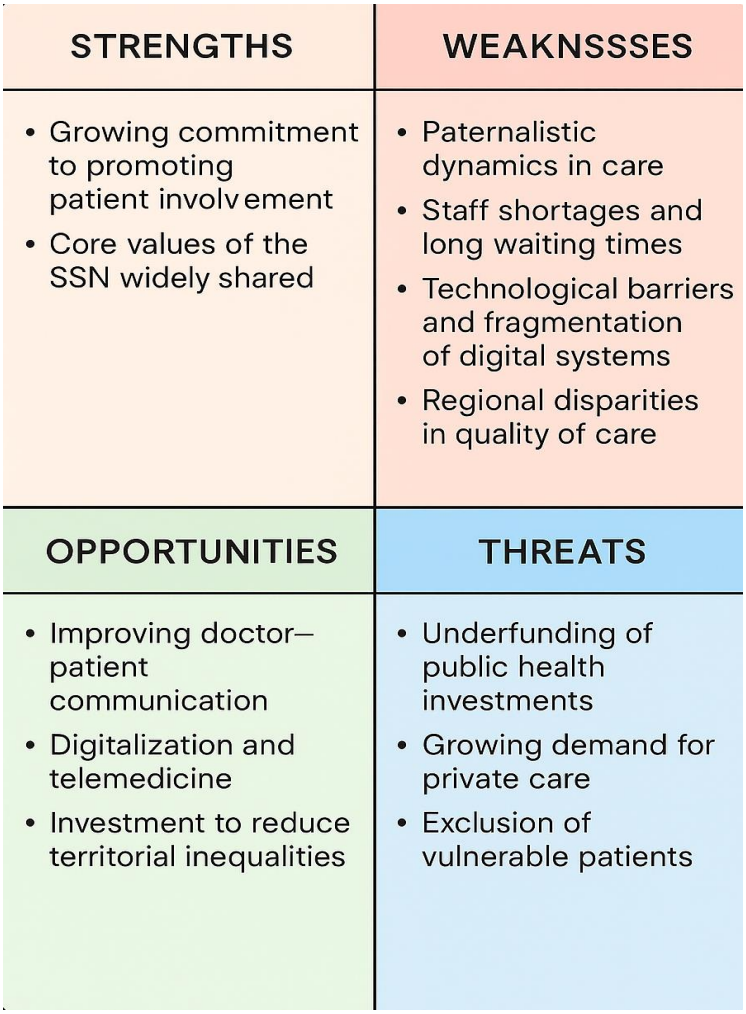


Figure 21: SWOT framework for evaluating patient empowerment challenges and potentials

Overall, in can be assumed that, while the core values of the SSN remains widely supported, the results reveal a shared perception that its implementation fails to meet expectations, especially in terms of efficiency, equity and responsiveness to patient needs. As one physician from the public sector said, when interviewed:

'There's a strong commitment to universal access, but the way resources are managed leads to inefficiencies and longer waiting times. People often turn to private care, or delay treatment altogether.'

Chapter 5

Conclusions

The guiding lead of this thesis project has undeniably been the process of patient empowerment. The question was whether this process could serve as a possible solution to improving healthcare, or at least some of its critical issues, from clinical, organizational, educational, and economic perspectives.

To answer this question, the starting point was a broad literature review aimed at understanding the current definitions and dimensions of patient empowerment (this review also served to provide context for the expert interviews conducted later in the study). The literature review did not reveal a single definition, but rather a set of concepts that together shape the process of patient empowerment in its entirety, outlining the new roles that both the patients and the physician must assume within the care plan. This lack of a unified definition certainly enriches the concept by adding various perspectives;

however, it also leads to a lack of clarity in boundaries, which can create confusion. This is reflected in the development of programs that all claim to promote patient empowerment yet ultimately pursue different objectives.

Returning to the concepts that emerged from the review, the recurring theme of patient empowerment is undoubtedly the patient's ability to gain control over their condition, while also adopting a proactive approach to managing their own health. One of the commonly cited goals of patient empowerment in many studies is the process of shared decision-making the collaborative development of a treatment plan between patient and physician. By bridging this gap, the doctor gains a better ability to define a more suitable care plan, while the patient benefits both clinically and in terms of their relationship with their own health condition.

It is interesting to note that the growing interest in patient empowerment stems from the need to manage chronic conditions more effectively, as they continue to rise. Chronic illness is a particular condition because it affects the patient's daily life in terms of quality of life, but also because it involves a set of contextual factors that can only be known by the patient themselves. Therefore, to ensure the success to treatments, it is essential to obtain input and collaboration from the patient.

The second question that guided this thesis project – *What are the possible tools and interventions to improve patient empowerment?* – led to the search for concrete solutions to enhance patient empowerment.

It should be noted that the literature highlights how patients can be guided along this path both by healthcare professionals and by programs promoted by the national health system itself.

The results, both form the literature review and the interviews, revealed significant interest in implementing technological solutions to support the patient empowerment process – referred to as e-Health. However, to be supportive rather than obstructive, technological tools must be flexible enough to be used in different contexts, accessible via mobile devices and designed with a user-friendly interface. E-Health also enables the

sharing of information among people who have had similar care experiences, which has been shown to be an important factor for patients and physicians.

It is important that technology always supports and never replaces the face-to-face relationship between patient and physician. Otherwise, it would lose all its advantages and become counterproductive to the relationship, creating distance between them. In fact, the patient might adopt an overly autonomous behaviour, straying from the physician's recommendations and thereby putting their health at risk.

At the same time, the e-Health system should fully exploit its potential by ensuring effective management of the patient's chronic condition. Such conditions typically require coordinated care among various healthcare professionals, each of whom should have a clear picture of what has been done by their colleagues in order to act with full awareness. In the traditional model, this responsibility falls to the patient, who, during consultations, often provides only a rough inaccurate summary – usually on paper – of the treatments received from other specialists. This process, however, can be managed far more efficiently through an e-Health solution. The result is a clinical benefit for patients and an operational advantage for physicians, who can manage the care pathway with greater awareness. Finally, it is also important to design e-Health solutions for citizens who may benefit from such tools in their everyday live – not just in situations linked to illness.

As for the variables that most significantly influenced the results, both directly on empowerment and in relation to the tool, the patient's level of trust in the healthcare system and their digital literacy proved to be fundamental. Training courses could be offered to improve patients' digital skills. In fact, educational modules could be implemented at the outset of the project to ensure a more homogeneous level of technological competence among patients.

Another variable that turned out to be especially relevant was the patient age. Older patients often show some resistance in perceiving e-Health tools as easy to use and beneficial. Since this patient group is also numerically significant, it deserves special

attention in the preadoption phase, with personalized programs to help overcome this barrier. Furthermore, close attention must, also, be paid to the healthcare team's ability to clearly explain the features and applications of the tools.

The final research question of this thesis project aimed to address an ambitious and long-standing debate: whether patient empowerment is indeed the right solution to overcome the well-known issues within the healthcare system.

While it was never the objective to provide a definitive answer, it can be stated – based on the literature review and the analysis of the results – that an intervention aimed at improving patient empowerment, if well-structured, represents an excellent solution. This is because it does not target only one aspect of the healthcare process but rather addresses the needs of multiple stakeholders and enhances the overall organization of healthcare infrastructures. Patients benefit in both clinical outcomes and quality of life; physicians gain a broader understanding and are better able to develop treatment plans that are more responsive to patient needs and healthcare benefits from more efficient and less chaotic operations.

However, as already stated, this is a process filled with both strength and weaknesses, and achieving good results largely depends on the ability of those in charge to 'contain' its negative aspects. It is crucial that the interaction between patient and physician remains constructive rather than destructive, ensuring that the patient, empowered by their autonomy, does not deviate from the medical guidance provided. It is therefore necessary to structure this process in a solid and precise manner, including personalized interventions for certain categories of patients, carefully considering the target group to which the intervention is addressed and supporting the patient throughout the process with trained professionals capable of understanding their difficulties and needs.

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List of Abbreviations

SSN	Sistema Sanitatio Nazionale (Italian National Health System)
NHS	National Health System
FSE	Fascicolo Sanitario Elettronico
EHR	Electronic Health Record
IPS	International Patient summary
EDHS	European Health Data Space
PHC	Primary Health Care
EHC	Emergency Health Care
ICT	Information and Communication Technology
SDG	Sustainable Development Goals
SDM	Shared Decision Making
AI	Artificial Intelligence
WHO	World Health Organization
OECD	Organisation for Economic Co-operation and Development
PNRR	Piano Nazionale di Ripresa e Resilienza
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analysis